

# **Internet Governance Forum (IGF)**

## **The First Two Years**

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in cooperation with the IGF Secretariat

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## **Message by Sha Zukang, Under-Secretary-General, United Nations Department of Economic and Social Affairs (UNDESA)**

The Internet has become the backbone of our globalized world. It is a powerful tool that can assist us in our efforts to promote peace and security, as well as development and human rights. Given the tremendous potential of the Internet to change our lives, it is no wonder that people take an interest in how it is being run and managed. What has become known as 'Internet governance' has thus become a new issue on the agenda of international cooperation. The Internet is a new technology and its governance is as innovative as its underlying codes and protocols. In essence, Internet governance is based on collaboration between all stakeholders.

The Internet Governance Forum (IGF) builds on this tradition of multistakeholder cooperation. It is a direct outcome of the World Summit on the Information Society (WSIS), and its main purpose is to bring people together from all stakeholder groups - governments, the private sector, civil society and the academic and technical communities - to stimulate debate and discussion, exchange information and share good practices. Participants at the IGF engage as equals in a dialogue on public policy issues related to the Internet and its governance.

In spite of the diverse interests of its stakeholders, from its first meeting held in Athens in 2006 via Rio de Janeiro to its 2008 meeting in Hyderabad, the IGF has become a melting pot for a common understanding of issues. While the IGF does not have decision-making authority, it can inform and inspire those who are in a position to make decisions. The IGF is thus a tangible contribution to the implementation of the WSIS Tunis Agenda.

The first two meetings of the IGF produced a lot of valuable materials. This book presents a digest of the increasing wealth of knowledge on issues related to Internet governance. The United Nations Department of Economic and Social Affairs (UNDESA) provides the institutional home of the IGF Secretariat, which has prepared this book with the support of the ITU and UNESCO.

沙祖康

## Foreword by Dr. Hamadoun I. Touré, Secretary-General, International Telecommunication Union (ITU)

### ITU and the evolution of the Internet

Founded in 1865, ITU<sup>1</sup> has been an integral part of the United Nations system since its inception in 1947. As the leading United Nations agency for information and communication technologies, ITU acts as the global focal point for both governments and the private sector. As organizer of the well-established TELECOM<sup>2</sup> events, and through its core sectors – Radiocommunication<sup>3</sup> (ITU-R), Standardization<sup>4</sup> (ITU-T) and Development<sup>5</sup> (ITU-D) – ITU is intensely involved with the ongoing development of the Internet.

### ITU, WSIS and the IGF

The World Summit on the Information Society<sup>6</sup> (WSIS) represented an important milestone in ITU's long and distinguished history. The WSIS was the first time that the organization had taken on the leading managerial role in a UN Summit convening many Heads of State and Government. The Declaration of Principles<sup>7</sup> and Action Plan<sup>8</sup> adopted on 12 December 2003 during the first phase of WSIS, and the Tunis Agenda for the Information Society<sup>9</sup> adopted on 18 November 2005 during the second phase are the basic outcome documents of the Summit. Included in the Tunis Agenda was an invitation to the UN Secretary-General to convene, in an open and inclusive process, a new forum for multi-stakeholder policy dialogue (para 67) called the Internet Governance Forum<sup>10</sup> (IGF). Another stated aim of the WSIS was to enhance cooperation in this multi-stakeholder environment (see Figure 1).

In November 2007, ITU played an essential facilitation role and participated actively in the second IGF meeting<sup>11</sup> held in Rio de Janeiro, Brazil, (co)organizing three important IGF events: the Open Forum on Cybersecurity entitled "Can we win the war against cyber-threats?"; the Thematic workshop on Multilingualism entitled "Towards international standards for a truly multilingual global Internet Multilingualism" (in collaboration with UNESCO and ICANN); and the Thematic Workshop on Diversity entitled "Making accessibility a reality in emerging technologies and the web".

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<sup>1</sup> See <http://www.itu.int/>

<sup>2</sup> See <http://www.itu.int/ITU/TELECOM/>

<sup>3</sup> See <http://www.itu.int/ITU-R/>

<sup>4</sup> See <http://www.itu.int/ITU-T/>

<sup>5</sup> See <http://www.itu.int/ITU-D/>

<sup>6</sup> See <http://www.itu.int/wsis>

<sup>7</sup> See [http://www.itu.int/wsis/documents/doc\\_multi.asp?lang=en?&id=11610](http://www.itu.int/wsis/documents/doc_multi.asp?lang=en?&id=11610)

<sup>8</sup> See [http://www.itu.int/wsis/documents/doc\\_multi.asp?lang=en?&id=11600](http://www.itu.int/wsis/documents/doc_multi.asp?lang=en?&id=11600)

<sup>9</sup> See [http://www.itu.int/wsis/documents/doc\\_multi.asp?lang=en&id=22670](http://www.itu.int/wsis/documents/doc_multi.asp?lang=en&id=22670)

<sup>10</sup> See <http://www.intgovforum.org/>

<sup>11</sup> See [http://www.itu.int/osg/csd/intgov/itu\\_second\\_igf.html](http://www.itu.int/osg/csd/intgov/itu_second_igf.html)

## WSIS and Internet

- WSIS reaffirmed that the international management of the Internet *should* *multilateral, transparent and democratic, with the full involvement of governments, private sector, civil society and International Organizations*



Figure 1

The WSIS noted that the core competencies of ITU in the field of ICTs are of crucial importance for building the information society (Geneva Declaration of Principles, para 64). In recognition of ITU's expertise, world leaders agreed to appoint ITU as the sole Facilitator for WSIS Action Lines C2<sup>12</sup> ("Information and Communication Infrastructure"), C5<sup>13</sup> ("Building Confidence and Security in the Use of ICTs") and, since 2008, taking over from the UNDP in the lead role for C6<sup>14</sup> ("Enabling environment").

ITU's activities, policies and strategic direction are determined and shaped by its Member States and the interests of the ICT industrial sectors it serves. For instance, at the Plenipotentiary Conference in Antalya, 2006, a commitment was made to focus on Internet Protocol (IP)-based networks (Resolution 101). The transition to IP-based technologies is now a key strategic element in the design, development and use of the world's telecommunication networks. This transition has shaped, and continues to shape, ITU's work programmes in its three sectors. From Next Generation Networks (NGN) and cybersecurity to policy issues and resource management, ITU has some involvement in almost every major aspect of Internet development (see Figure 2).

<sup>12</sup> See <http://www.itu.int/wsis/c2/index.html>

<sup>13</sup> See <http://www.itu.int/wsis/c5/index.html>

<sup>14</sup> See <http://www.itu.int/wsis/c6/index.html>

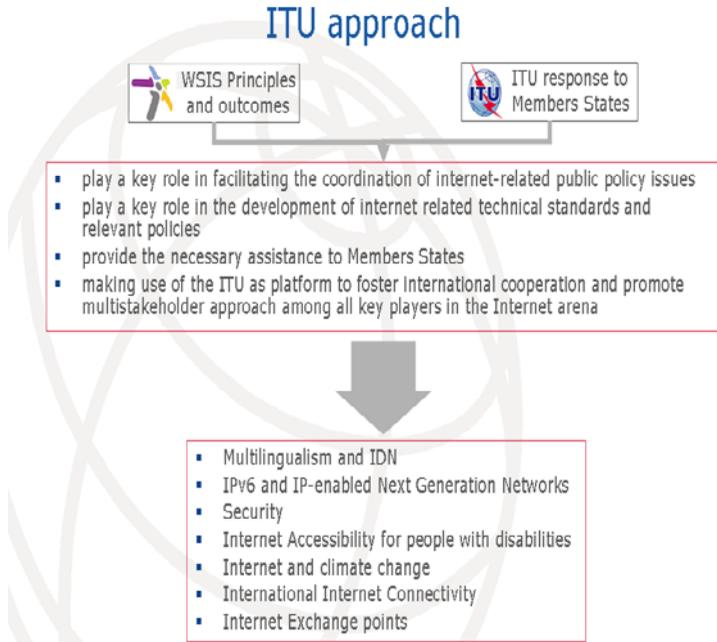


Figure 2

### IP-enabled NGN (including Policy and Regulatory Challenges)

Substantial investments are being made by operators and equipment manufacturers in what are often referred to as *IP-Enabled Next Generation Networks* (NGN). IP-enabled NGN can be seen as a logical progression from separate Public Switched Telephone Network (PSTN), mobile and IP-network infrastructures to unified networks for electronic communications based on IP. The fundamental difference between NGN, today's data networks and PSTN networks is the shift towards a converged, packet-switched multi-service platform. IP-enabled NGN is already being deployed by numerous service providers around the globe.

ITU activities related to NGN include establishing architectures, interface specifications, and implementation guidelines in the form of ITU standards (Recommendations). The ITU's NGN-Global Standards Initiative<sup>15</sup> (NGN-GSI) encompasses all NGN work across ITU Study Groups (SGs) since 2003. These SGs are looking at aspects like the evolution of networks to NGN, QoS (Quality of Service), interoperability, security,

<sup>15</sup> See <http://www.itu.int/ITU-T/ngn/>

generalized mobility, service capabilities and architecture.

In addition to SGs, ITU has organized a wide range of events around the theme of NGN. Attracting high-level engineers and managers from all industry sectors, some of the major events have included the workshops “Satellites in NGN?”<sup>16</sup> (Montreal, Canada, July 2007); “Multimedia in NGN”<sup>17</sup>, (Geneva, September 2007); and Innovations in NGN<sup>18</sup> (Geneva, Switzerland, May 2008).

ITU has also been extremely active with regards to policy and regulations in this area. The 7th annual Global Symposium for Regulators<sup>19</sup> (GSR) was held on February 2007 under the theme of “The Road To Next-Generation Networks (NGN): Can Regulators Promote Investment And Achieve Open Access?”. The GSR Discussion Papers, together with additional chapters on NGN technology and an ICT market and regulatory overview were published in the 2007 edition of ITU *Trends in Telecommunication Reform (“The Road to Next Generation Networks”)*<sup>20</sup>. Together with infoDev, ITU has also developed the *ICT Regulation Toolkit*<sup>21</sup>, an online resource for regulators and policy-makers in developing countries that contains a series of modules on key regulatory issues.

## A global approach to DNS<sup>22</sup>

Although the majority of Internet users are now non-native English speakers, certain components of the Internet remain English-centric, which have created barriers to access. One barrier is the lack of internationalized capability within the Internet Domain Name System (DNS). The deployment of Internationalized Domain Names (IDN) has raised a number of issues including technical and interoperability issues, administrative arrangements (particularly for internationalized top level domains), intellectual property, dispute resolution and cultural and/or social issues.

The joint activities of UNESCO and ITU on Multilingualism and IDNs include developing a set of universal standards aimed at facilitating the creation of multilingual Information Society. A good example is the coordination work being carried out to develop an internationalized country code, Top Level Domain (ccTLD) reference table, which would foster and further facilitate the implementation of projects on Internationalized Domain Names. To achieve this important result and in their efforts to promote inclusion, local content development and increased global access to the Internet, ITU and UNESCO are in regular discussion with other UN bodies, such as WIPO, UNESCO, as well as ICANN and the Governmental Advisory Committee (GAC). ITU is also a regular participant in the ICANN Technical Liaison Group, of which it is a member.

## Cybersecurity and Countering Spam Activities

Confidence and security in using Information and Communication Technologies (ICTs) are prerequisites for the development of an inclusive and global information society, and ITU has made cybersecurity a top priority.

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<sup>16</sup> See <http://www.itu.int/ITU-T/worksem/satellites/200707/index.html>

<sup>17</sup> See <http://www.itu.int/ITU-T/worksem/multimedia/200709/index.html>

<sup>18</sup> See <http://www.itu.int/ITU-T/uni/kaleidoscope/index.html>

<sup>19</sup> See [http://www.itu.int/ITU-D/treg/Events/Seminars/GSR/GSR07/Chairmansreport\\_final.pdf](http://www.itu.int/ITU-D/treg/Events/Seminars/GSR/GSR07/Chairmansreport_final.pdf)

<sup>20</sup> See [http://www.itu.int/pub/D-REG-TTR\\_9-2007](http://www.itu.int/pub/D-REG-TTR_9-2007)

<sup>21</sup> See <http://www.ictregulationtoolkit.org>

<sup>22</sup> The ITU's relevant information was identified by SG17. See <http://www.itu.int/ITU-T/studygroups/com17/idn/index.html>

As sole facilitator for WSIS Action Line C5, last year ITU launched the Global Cybersecurity Agenda<sup>23</sup> (GCA) as a framework for dialogue and international cooperation aimed at addressing global challenges in cybersecurity. A High-Level Experts Group<sup>24</sup> – made up of top specialists from around the world – was immediately established and, after intense collaboration, they presented a number of proposals to me. GCA has already transitioned into an operational phase through the launching of two major initiatives – Curbing global cyber threats in partnership with the International Multilateral Partnership Against Cyber-Threats (IMPACT) and Child Online Protection with a coalition of several partners.

In addition to initiatives arising from the GCA, ITU's has also been active in promoting a safe cyberenvironment. ITU's security standards cover a broad range of areas, including security principles for IMT (3G) networks, IP multimedia systems, NGN, network security requirements, network attacks, theft and denial of service, theft of identity, eavesdropping, telebiometrics for authentication and security of emergency telecommunications. ITU is providing direct technical assistance for building capacity in Member States (particularly developing countries), designed around coordinating national strategies and protecting network infrastructures from threats. And ITU is doing its part to build confidence and security in the use of ICTs by creating an enabling environment through its management of the international radio-frequency spectrum and the establishment of appropriate Recommendations.

## Using ICT to create a better world

ITU is constantly encouraging the use of ICTs for making the world a better place. Two high priority initiatives include promoting ICTs for greater Accessibility and Climate Change, which are of great interest also within Internet Governance related matters. ITU's World Telecommunication and Information Society Day (WTISD), which took place in Cairo on May 2008, gave particular attention to "Connecting Persons with Disabilities". ITU is also involved in variety of collaborative efforts to promote accessibility, such as the Dynamic Coalition on Accessibility and Disability (DCAD), established after the very good results obtained within the context of the IGF meeting in 2007. On Climate Change, ITU is active on many fronts: monitoring, knowledge sharing and active reduction of greenhouse gas emissions (GGEs). For instance, radiocommunications can be used for environmental monitoring, public protection and humanitarian disaster relief. Recently, ITU has co-organized two important events focused on Climate Change: in Kyoto (with MIC Japan) and London (with British Telecom). ITU is also active in the coalition on Internet and Climate Change (I&CC), established under the IGF framework with the aim of moderating the environmental impact of the Internet and finding intelligent ways of using the power of the Internet to reduce GGEs worldwide.

## Our ongoing mission

The Internet is already changing the way we work, play and think, and there is a huge store of as-yet-untapped potential. At ITU, we'll continue to find ways of advancing progress: helping define technical standards, supporting innovative projects, promoting best practice and policies, and safe-guarding the rights of everyone to have access to a secure and effective global network. At ITU, we are truly committed to connecting the world.

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<sup>23</sup> See <http://www.itu.int/osg/csd/cybersecurity/gca/>

<sup>24</sup> See <http://www.itu.int/osg/csd/cybersecurity/gca/hleg/index.html>

## **Foreword by Koïchiro Matsuura, Director-General, United Nations Educational, Scientific and Cultural Organization (UNESCO)**

The Internet has revolutionized the way people communicate, create and share knowledge. It is an inherently democratic and empowering force that presents an unparalleled opportunity to improve the free flow of information and ideas around the world. To that end, Internet governance mechanisms must be based on the principles of openness and diversity, encompassing universal access, freedom of expression, interoperability and measures to resist any attempt to censor content. They must also respect cultural and linguistic diversity to enable the fullest access possible. All of these are essential if the Internet's potential to foster sustainable human development and build more democratic societies is to be realized.

That is why Internet governance at the global level is a core concern of UNESCO. Our mandate is to promote the free flow of ideas by word and image and to develop communication between peoples as a means of constructing inclusive, development-oriented knowledge societies based on the principles of freedom of expression, universal access to information, linguistic diversity and equal access to quality education.

Adopted in the aftermath of the Second World War, UNESCO's constitution explicitly emphasizes the importance of upholding the dignity, equality and mutual respect of all peoples through the free exchange of ideas and knowledge as the path towards mutual understanding and building a sustainable peace.

That commitment remains constant. What has changed – exponentially – is the role of technologies in facilitating it. Indeed, three years after the concluding phase of the World Summit on the Information Society (WSIS) in Tunis, we see how the technological pace constantly overcomes our capacities to plan and design appropriate policies to bridge the growing gaps in development. The explosion of Internet users in developing countries and the diffusion of mobile phone subscriptions are just two examples. The challenge is to take full advantage of the potential offered by information and communication technologies to ensure universal access to information and knowledge. Internet governance is crucial to achieving this goal.

During the WSIS, UNESCO strongly advocated the ethical, legal and socio-cultural dimensions of knowledge societies. In recognition of the importance of these issues, UNESCO was designated as lead facilitator agency for the multi-stakeholder implementation of six Action Lines<sup>(7)</sup>. The fulfilment of WSIS recommendations and the implementation of the Action Lines represent a serious commitment for the Organization; UNESCO has integrated major WSIS principles and actions into its programmes and restructured its strategies to accommodate the outcomes of the WSIS, pursuing and promoting the overarching goal of building inclusive knowledge societies.

The innovative open multi-stakeholder approach initiated at the summit has been the keystone for UNESCO's implementation of the Action Lines, promoting partnerships that take advantage of each actor's specific expertise in pursuit of a common aim. The successful experience of the first two years of the Internet Governance Forum (IGF) further demonstrates the importance of such an approach.

The dynamics of technological and social change pose fundamental questions about promoting human-centred knowledge societies and ensuring universal participation in them. Many of the issues raised in the IGF debate have broadened significantly beyond technical matters to include societal, ethical and legal aspects. We must view the IGF

as an ongoing process towards building a global Internet Governance regime, which has proved the validity and effectiveness of the core WSIS principles: “Multi-stakeholderism”, “Transparency”, “Openness” and “Inclusion”.

UNESCO welcomes the choice of the overall theme for the Third IGF in Hyderabad, India, in December 2008 – “Internet for All”, which echoes UNESCO’s longstanding commitment to Education for All. This represents a clear recognition of the central role of the human being and an understanding of the Internet that goes beyond the net of computers to look at the enormous potential for connecting human knowledge.

“Reaching the next billion” is another theme that UNESCO fully supports, focusing on the developmental potential of the Internet, and tackling the burdens of access starting from multilingualism. Ensuring a multilingual cyberspace is an integral element of UNESCO’s work to promote linguistic and cultural diversity and universal access to information and knowledge. These are elucidated in the 2003 UNESCO “Recommendation concerning the Promotion and Use of Multilingualism and Universal Access to Cyberspace” and are being given particular prominence in 2008, the International Year of Languages, for which UNESCO is lead agency.

UNESCO strongly supported the introduction of Internationalized Domain Names during the first IGF and has worked since then to establish multi-stakeholder partnerships for ensuring universal access to the Internet through each script and language. The decision of the 32nd meeting of the Internet Corporation for Assigned Names and Numbers (ICANN) in June 2008 in Paris, to establish a fast track mechanism for providing the first Internationalized Country Code Top Level Domains Names (IDN ccTLDs), was a major step forward in the development of the Internet as a global information and communication tool, as it will enable multi-script addressing and therefore ensure access for millions of users who are currently deprived of this core resource of knowledge societies due to language constrictions at the very entry points to the Internet.

UNESCO’s 2005 World Report “Towards Knowledge Societies” emphasized the need for “knowledge societies ... [to] be based on a ‘double multilingualism’ – that of individuals and that of cyberspace.” UNESCO is committed to work towards a multilingual Internet as part of a multilateral, transparent and democratic process involving governments and other stakeholders, working to build capacities, raise awareness and leverage political deadlocks in the codification of scripts and languages.

As part of the ongoing debate on Internet governance, UNESCO will:

- Contribute to the debate on issues within its fields of competence, particularly the broader “cyberspace” policy issues (legal, societal and ethical), insisting on robust analysis, advocating precise language and supporting a depoliticized debate.
- Ensure that the Internet can contribute to the economic and social development of poor countries and promote policies that would enhance the developmental potentialities for the Internet.
- Offer its experience in facilitating the debate around Internet governance among governments, civil society and private sector with a specific regional focus, to develop solutions tailored to the needs and capacities of each country, working to reach the largest consensus on the issues of access, freedom of expression, cultural and linguistic diversity.

- Encourage technical innovation and promote the bottom-up, diffused and collaborative spirit of Internet development
- Support the efforts of ICANN to enhance its openness and multi-stakeholder organization, internationalization, independence, neutrality and transparency.
- Ensure greater participation and equal opportunity to benefit from the development of new multiscript generic top level domain names (gTLDs), and foster truly global competition that is open to developing countries.
- Encourage the grass-roots advocacy and action processes of the Dynamic Coalitions around relevant internet-related public policy issues, and foster the multi-stakeholder engagement of public and private actors from developing countries.
- Support the enhanced cooperation mechanism recommended by the Tunis Agenda on public policy issues pertaining to the Internet, initiated by the Under-Secretary-General in March this year.

We stand today at the midway point for achieving the Millennium Development Goals - a challenge for humanity to which UNESCO has wholeheartedly committed its programme and resources. Despite the Internet, the “knowledge divide” is likely to continue to widen unless urgent steps are taken to close it. Tim Berners-Lee predicted more than ten years ago: “The Web will have a profound effect on the markets and the cultures around the world: intelligent agents will either stabilise or destabilise markets; the demise of distance will either homogenise or polarise cultures; the ability to access the Web will be either a great divider or a great equaliser; the path will either lead to jealousy and hatred or peace and understanding.”

Internet governance that is conducive to openness and diversity will help us follow the second path and build knowledge societies.

## Introduction

### The IGF Book - Markus Kummer

The Internet Governance Forum (IGF) was conceived as a platform for multi-stakeholder dialogue on public policy related to Internet governance. This dialogue was focused on the public policy debate on Internet governance, as defined by the World Summit on the Information Society (WSIS) and contained in the *Tunis Agenda*. But the focus was no more specific than that, which meant that our debates were left open to follow a variety of directions,

The IGF has, in its short history, broadened the debate on Internet governance. Issues of child protection for instance came to the fore at the second meeting in Rio de Janeiro, as did linkages with sustainable development and climate change. So, the IGF succeeded in creating a space for an issue-oriented policy dialogue on Internet governance with shared trust and confidence among all stakeholders concerned.

To begin with, we thought that the IGF should make best possible use of the Internet in publishing its discussions and we considered the IGF as a 'paper free space'. In terms of transparency, all the proceedings of the IGF meetings held so far are available on the IGF Web site. These include the verbatim transcriptions of the main sessions, video and audio casts of all main sessions and audio casts of all workshops and other events. In addition, there is a summary report prepared by the IGF Secretariat of the First IGF meeting held in Athens in 2007 and a Chairman's Summary of the Second IGF meeting held in Rio de Janeiro in 2007.

There is a reference to the requirement to 'publish its proceedings' in the mandate set out in the *Tunis Agenda*. The mandate does not specify in what format the proceedings should be published, but it did become apparent that there was an expectation by stakeholders to get a product between two covers -an old fashioned book they could take home and put on their bookshelves.

And indeed, on further reflection, there is much merit in making the wealth of the proceedings available to a broader community interested in the Internet - users, practitioners, engineers, entrepreneurs, researchers, students and advocacy groups of all sorts. We thought, therefore, we should produce a book to record the IGF history and hoped to publish the written records of the Athens meeting. Unfortunately, due to lack of sufficient funding, this was not possible in 2007.

The first 'IGF Book' therefore contains the proceedings of the first two meetings. What is a coincidence caused by budgetary restraints turns into an opportunity: by sifting through the material of the first two years it became apparent that we had a plethora of material that deserved to be published. In addition, we approached some distinguished personalities who showed a keen interest in the IGF as an experiment in multi-stakeholder cooperation and asked them for their personal reflections.

Heads of State and government wanted the IGF to be open, transparent and inclusive, involving all stakeholders on an equal footing. The IGF tries to comply with this mandate. This is a learning process for all stakeholders involved, but so far it has been largely successful because they all recognized that such a dialogue was in their interest. Governments recognized that informed decision-making needed the input of non-governmental stakeholders – the private sector, civil society, including the technical and academic communities. These groups, on the other hand, were keen to be involved in a dialogue with governments to learn about public policy concerns they might have.

Governments, while remaining the decision-makers, thus rely increasingly on the advice of other stakeholders in the upstream consultative process that helps to shape their decisions. There is a need to find new and innovative ways to involve all stakeholders in tackling emerging problems on the global agenda. The IGF, though modest in its means, may be able to contribute to the search for new governance models.

It is our hope that this book will help to inform interested readers about Internet governance and the IGF, but also give them an insight into multi-stakeholder cooperation in general terms. United Nations Under-Secretary-General Sha Zukang and the United Nations Department of Economic and Social Affairs deserve our thanks for their ongoing support of the IGF process. My thanks also go to the ITU and UNESCO and their staff who helped make this publication possible, in particular to Miriam Nisbet, Andrea Beccalli and Marco Obiso. Last but not least, I would like the editors, Avri Doria and Wolfgang Kleinwächter, who turned the wealth of material available on the IGF Web site into a coherent narrative.

## **The Role of the Internet Governance Forum - Nitin Desai**

The Internet Governance Forum is an experiment in global governance. It does not have a pre-defined membership. It is open to anyone - governments, civil society, the corporate sector, the internet technology community, in fact to anyone who has an interest and the competence to contribute. Come as you are but come with something to offer is what it says. It is an open access forum not designed to take decisions but to function as a space for airing different views and stimulating dialogue and discussion. It is a bit like a village or town meeting giving voice to the users of the net and helping to identify emerging issues.

The Internet Governance Forum, a product of the tense discussions in the World Summit on the Information Society at Geneva and Tunis, has met twice so far, in Athens in 2006 and Rio de Janeiro in 2007. By all accounts the two meetings have been considered a success and the fact that participants continue to come, even they are under no obligation to do so, testifies to the possibility that they consider it useful.

The discussions at the two IGF forums held so far have been largely about issues of equity and freedom. The broad theme of equity covers many things - the concern about Internet users in developing countries, about users in remote areas, about gender, about indigenous people, about people with disability. This concern for equity also underlies the discussions on diversity, local content and IDN so that the Internet is more accessible to people whose natural language is not English, natural script is not Latin. A very important dimension of equity is the question of access cost which has come up again and again in the discussions.

The IGF discussions have quite naturally focused on the tremendous growth in Internet usage-in fact the issue of Internet governance has acquired salience precisely because of this explosive growth. But the concern for equity also manifested itself in the frequent references in the discussions to the five billion who are not yet on the Internet. In some ways the third meeting of the IGF in Hyderabad is an appropriate place to start focusing on the day when the Internet is universal in the sense that everybody in the world has an e-mail address, the way they have a postal address now, and where the use of the Internet for communication, networking and knowledge acquisition is as ubiquitous as face-to-face communication, as easily understood as the postal system and as widely used as the telephone. Will our present ways of managing the Internet work as well then? That is the question we should ask.

An important dimension of the equity theme is the discussion on the management of critical internet resources that was much more explicit in the second IGF at Rio. The real issue here is that the Internet is changing. It is no longer the shared instrument of essentially Western information technology specialists, allowing them to communicate, exchange knowledge and (as was the original motivation for Arpanet) share computing capacity. It is now central to commerce, media, governance, citizen collaboration and many other activities absolutely central to how people wish to live their lives. They will not leave this as some privileged enclave beyond their sphere of influence. The overwhelming majority of its new users are going to be non-English speaking lay persons in developing countries. Equity demands that their concerns become central to how the Internet is managed.

The second broad theme under which one could put much of what came out of the discussions in the two IGFs we have had so far is under the theme of freedom. The core issue here is what should be considered wrongful suppression of freedom of

expression and is there anything in the structure of Internet governance that can help us to guard against this? How do you reconcile the freedom of expression and privacy with the issues about authentication, digital identity and so on that are emerging from the concerns about national and global security?

The concern for freedom of expression should not allow the Internet to become a privileged haven for criminals. That is why an important strand of the discussion in the two IGFs has been the protection of Internet users from cyber-crime, spam and so on. A crucially important part of this is the dialogue on child pornography and child protection.

This is a governance issue and the exchange of experiences that the IGFs have facilitated on this may well be their most substantive contribution.

In terms of how the Internet is managed, its modalities so to speak, a great deal of the discussion in the two IGFs centred around the tension between relying on the market and focusing on the public good nature of the Internet. There was a sense that because this is a medium, unlike so many others, where the innovation takes place at the edges, you have to keep a structure and modality of management which allows this innovation and does not have an excessive amount of central control. Otherwise, the medium will stop developing.

Competition is the key to innovation and more and more of the new applications, perhaps even standards, are coming from profit seeking entrepreneurs. There are issues of competition policy which will arise if you were to depend on the market. This is a low-cost of entry business where a particular application which is just, say, 20% better than every other, because it can reach out to every corner of the Internet at no cost, can swamp the others. There is this winner takes all issue. But a winner may acquire an edge because of a prior presence or because of IPR. Because of the global nature of the Internet this type of competition issue cannot be handled entirely at the national level. Where will that be handled?

The Internet is changing the way in which other businesses like telecommunication, retailing, music and video distribution, publishing and so on operate. Some of these are subject to policy regimes and regulatory supervision whose impact is greatly modified by the new possibilities that the Internet provides. How will the interface between these regimes and Internet governance be managed?

The IGF provides a space where these and other issues can be discussed. They are of course discussed in specialist forums and in the bodies that have formal management responsibilities for different parts of the Internet infrastructure. What the IGF provides a forum where people and groups, who do not normally meet together, enter into a structured and constructive conversation. Its success must be measured by the extent to which it engenders changes in the actions and policies of bodies which do have formal decision making authority. So far the focus has been on connecting with those most directly involved in managing the Internet infrastructure. But the impact of the Internet extends to many areas of policy beyond Internet and Telecom management. The challenge is to create a space that draws in an increasingly wider class of participants.

The Internet philosophy of working from the bottom up, of people of from different countries working together informally in order to make things work somehow seems to have percolated through even into the deliberations and working methods of the IGF. The ease with which multi stakeholder involvement, not just in participation but also in management and leadership, have been accepted is one measure of this. There is something even deeper that is happening. What we may be seeing is really one of the

great, potentially greatest, impacts of the Internet, the way in which it can bring people together from different parts of the world and make them feel that they are part of a single borderless community.

At the same time, it must be said that it would be an injustice if the contribution of the IGF is seen only in terms of its success in providing a space for a dialogue. It has played a role at a more practical level by showcasing good and successful efforts that can help to set a standard of good practice for the management and use of the net. It has led to practical results with new partnerships for sharing knowledge and experience and, where relevant, to joint action in the form of the dynamic coalitions.

The IGF is a forum which brings together many different cultures- the polite protocols of inter-governmental diplomacy, the practical action oriented agendas of corporate boardrooms, the vigorous advocacy of NGOs, consumer rights groups and human rights activists, the structured approaches to consensus building of the internet technological community, the focus on "what is new" from the media which is there to cover the proceedings and to participate as a stakeholder. For the dialogue to work all the participants have to recognize that the value of this forum is the presence of the others but to realize this value everyone must adjust their expectations of how others should behave and, above all, listen rather than just talk.

## **Message from the Hosts of the 2006 IGF Meeting - Michalis Liapis**

Greece has been for a long time an active participant in the WSIS process and as a bureau member it played its part during the entire preparatory process. The Summit endorsed a Greek proposal, to host the inaugural meeting of a new Forum, the "IGF" in Athens, Greece. The successful organization of the Internet Governance Forum became a priority for the Greek government at the highest levels in the ministries of Transport & Communications and Foreign Affairs. The main steps taken towards the preparation of the inaugural IGF meeting were:

- The Minister of Transport & Communications, Mr. Michalis Liapis, set up a Steering Committee to tackle the various tasks required for the organization of the IGF's inaugural meeting. Its membership comes from the Ministries of Foreign Affairs and Transport & Communications, as well as the academic and business world. It was designed as a lean and agile unit, to interface with the UN New York, Geneva, Brussels and other relevant entities.
- A website ([www.igfgreece2006.gr](http://www.igfgreece2006.gr)) was created specifically for the Athens meeting. Its primary function was to keep everyone informed of developments pertaining to organizational arrangements, give periodic updates and assessments of the state of play and in general ensure a smooth, predictable and successful meeting in Athens in 2006.

The inaugural meeting October 24,25 and 26 2006 was chaired by Greek Minister of Transport and Communications Michalis Liapis, who declared that the Forum should shape a common global vision for the development and growth of the Internet.

Prime Minister Mr. Karamanlis, who officially opened the meeting, also told participants that the Forum had united under the same goal and vision, governments, intergovernmental organizations, the private sector and civil society.

More specifically, he said that "Taking into consideration our shared interest in the ongoing robustness and dynamism of the Internet, this Forum should be considered as an opportunity for a broad policy dialogue," he said. The Minister of Foreign Affairs Mrs. Dora Bakogianni also addressed the Forum in similar terms.

The Athens inaugural IGF meeting was deemed to be a very successful one mainly on two accounts: -

- organization and logistics, if one considers that it was the first meeting of its kind and there were many unknowns and that its
- main objective was to stay as close as was possible to the spirit of Tunis and the essence of the delicate compromises which brought about the birth of the IGF.

The overall theme of the meeting was "Internet Governance for Development" and the agenda was structured along the following broad themes.

- Openness - Freedom of expression, free flow of information, ideas and knowledge
- Security - Creating trust and confidence through collaboration
- Diversity - Promoting multilingualism and local content

- Access - Internet Connectivity: Policy and Cost

Among the most concrete results of the first IGF in Athens was the emergence of a number of so-called *Dynamic Coalitions* which were relatively informal, issue-specific groups consisting of stakeholders that are interested in the particular issue and a number of workshops on specific issues. Most coalitions were open to participation to anyone interested in contributing. Thus, these groups gathered not only academics and representatives of governments, but also members of the civil society interested in participating on the debates and engaged in the coalition's works.

The Greek government accepted the challenge of hosting the inaugural IGF meeting being fully aware of the scope, importance and the magnitude of the task. It embraced the idea of a multistakeholder, open process, not inspired by dogmas and

stereotypes but a platform to promote all forms of innovative ideas and free-thinking. Greece believed and continues to do so that the IGF should put forward a vision of a global society where the Internet would build bridges between countries, cultures and people.

The IGF constitutes a unique institutional experiment based on broad based participation of all stakeholders on equal footing. Its deliberations can offer valuable inputs to decision makers, academics, international and other organizations and the internet community.

## **Message from the Hosts of the 2007 IGF Meeting - Hadil da Rocha Vianna**

The upcoming Internet Governance forum (IGF) meeting in Hyderabad, India, 3-6 December, 2008, will be the third in a series of five annual events scheduled by the Tunis Agenda (TA). After this initial period, the Tunis Agenda asks "the UN Secretary-General to examine the desirability of the continuation of the Forum, in formal consultation with Forum participants, (...) and to make recommendations to the UN Membership in this regard" (paragraph 76). As the review period approaches and the IGF outcomes mount, the time has come to reflect on its future in view of the forthcoming decision.

Having had the honour to share with Mr. Nitin Desai the Chairmanship of the preparatory process for the 2<sup>nd</sup> IGF in Rio de Janeiro as the Special Representative of Brazil, the host country, I take this opportunity to offer some reflections with the aim of contributing to the debate. This article starts by highlighting the wide and complex range of public policy issues posed by the Internet, comments on why an innovative international regime is necessary to address them, and concludes by considering on the role of the IGF in shaping it.

It is undisputed that the Internet is almost insensitive to national borders. The consequences of this fact, for the most part, are quite positive: on the one hand, it would not have expanded so quickly throughout the world if it were otherwise; nor would it have revolutionized the way we communicate and search for information in less than a decade. On the other hand, though, these features limit the capacity of any government – in an autonomous fashion – to promote domestic public policies such as digital inclusion and e-government initiatives, the deployment of national and local strategies to foster social and economic development, crime prevention and countering, citizens' privacy protection, and customer rights enforcement in e-commerce and e-services.

Likewise, the absence of coordination among, or constraints on, the actions of several actors driven primarily by self-interest and provided with distinct levels of power and access to information – infrastructure operators, products and service providers, experts, organizations of all kinds, and common users – may put at risk values such as respect for human rights; promotion of equality of opportunities; fair distribution of costs, risks and benefits of the information society; respect for freedom of expression; democratic access to information flowing from diversified sources; observation of the rights of minorities; and acknowledgement of the collective and individual differences that characterize and enrich civilization.

There is plenty of evidence that the risks and benefits of the Internet are not evenly distributed throughout all countries and regions. The barriers that different societies must overcome in the transition to the information society are unequal, and the Internet has a lot to do with such inequities. Due to historical, structural and market factors, Internet access costs tend to be higher precisely in those countries with lower average income and more precarious telecommunication services – not to mention the price of a computer, which is prohibitive for most of the population of developing countries. There are many places where providing commercial Internet access services simply does not pay off. Their population will depend on digital solidarity mechanisms or governmental initiatives to get connected.

Moreover, the mere availability of technology does not ensure its productive use. Insufficient education levels and the absence of technical capacity prevent many

societies from taking full advantage of the Internet potential. As happens under all social constructs, the current Internet content, structure and governance model reflect the needs, priorities and worldviews of their users and developers, the vast majority of whom live in the developed world. English is still the primary language in web content, and is overwhelmingly dominant in Internet documentation, technical terminology and governance mechanisms. This fact constitutes an additional burden for non-English speaking users, stakeholders and policy-makers.

Experience tells us that, left to itself, the Internet will not provide solutions to these public policy issues. To the contrary, addressing them effectively depends on a careful balance between global and local actions that cannot be achieved by accident. While governments alone are not capable of implementing efficient Internet public policies within their jurisdictions, and should count on the active participation of all stakeholders to do so, their implementation requires a deep knowledge of local and national possibilities and needs, an extreme sensitivity for local culture and values, as well as a degree of political legitimacy that only democratically elected governments can obtain. As the world grows increasingly interdependent, the role of governments as representatives of their citizens in the international arena is even more important. The WSIS outcomes acknowledge this fact by stating that "(...) the management of the Internet encompasses both technical and public policy issues and should involve all stakeholders and relevant intergovernmental and international organizations. In this respect it is recognized that: a) Policy authority for Internet-related public policy issues is the sovereign right of States. They have rights and responsibilities for international Internet-related public policy issues; (...)" (paragraph 35).

As far as Internet public policy-making is concerned, the building of a people-centered, development-oriented and inclusive information society depends on the deployment of decision-making processes that allow the Internet to evolve in the common interest, and with the participation of all, with particular attention to those who still do not benefit from its existence. This goal can only be achieved through a process of enhanced cooperation with global reach which – besides governments – should involve civil society, the private sector, intergovernmental organizations and the institutions responsible for the management of Internet resources, both globally and regionally. In addition to convening the IGF as a space for dialogue that should "Strengthen and enhance the engagement of stakeholders in existing and/or future Internet governance mechanisms, particularly those from developing countries" (Tunis Agenda, paragraph 72, f), the United Nations Secretary-General was called upon to initiate this process by the final documents of the World Summit on the Information Society (Tunis Agenda, paragraphs 69-71).

Given its task of raising global awareness and providing a space for debate on public policy and Internet governance issues, the IGF mandate was quite accurate in identifying the major challenges and suggesting the correct tools to cope with them. First, it recognizes that properly addressing Internet governance issues requires broad participation, and establishes the IGF as an open multi-stakeholder body. Second, it notes the existence of Internet governance "issues that do not fall within the scope of any existing body" (paragraph 72, b), and encourages the IGF to debate them. Finally – also in paragraph 72, b – it acknowledges that there are "bodies dealing with different cross-cutting international public policies regarding the Internet" where dialogue should be facilitated. The adequacy of the IGF mandate regarding its targets accounts for a great deal of the success of the Forum.

Stakeholders from all over the globe responded accordingly: the meaningful and increasing participation in the Athens and Rio meetings is evidence of the growing

awareness of the international community regarding the relevance of the Internet for the contemporary world. It has helped to make it even more clear than in Geneva and Tunis that the building of a multilateral, transparent and democratic regime for its global governance, with the participation of all, should be given priority in the United Nations agenda.

The Rio event advanced along the promising path that began in Athens, in terms of substance, by dedicating a main session to an evaluation of the existing mechanisms for the administration of critical Internet resources (addressing, protocols, infrastructure) vis-à-vis the principles and guidelines established by the World Summit on the Information Society (WSIS). This new main session – the best attended in Rio – emphasized the public policy aspects and cross-cutting nature of critical resources management and its impact on issues such as access, diversity, openness and security.

While there is still a lot to be done to ensure accomplishment of the IGF mandate, the progress so far has been remarkable, and all evidence indicates that there is room for improvement: just as Rio was Athens-plus, Hyderabad should be Rio-plus. The first two meetings demonstrated that the IGF is a living and evolving experience – just like the Internet. In the next few meetings, the IGF should evolve so as to ensure an adequate balance in geographic representation and participation of developed and developing countries within each stakeholder group. This is an essential pre-condition for the legitimacy of the recommendations that the IGF is allowed to make (Tunis Agenda, paragraph 72, g).

When it comes to the possible renewal of its mandate, one must bear in mind that the IGF is neither a self-contained process, nor a decision-making body. Its efficiency cannot be measured based on the quality of its outcomes alone. The IGF is rather a facilitating process for the implementation of all WSIS action-lines regarding Internet governance. In this context, the decision on the continuation of the IGF should be made in view of the contribution it can offer to the success of the WSIS implementation process in the future.

While one cannot forget that this is not a decision to be made now, there already seem to be more than enough reasons for the continuation of the IGF, if the present situation is taken into account. Despite all progress that has been achieved since Tunis, the precise diagnosis that led to the creation of the Internet Governance Forum remains essentially valid. In other words, there is still room for an IGF. Looking on the bright side, the two first IGF meetings proved able to promote global awareness and pertinent debate on Internet-related public policy issues through an incremental implementation of its mandate. Moreover, the displays of vitality observed in Athens and Rio make it evident that there is much more to expect from the IGF both in Hyderabad and in the near future.

## **Message from the Hosts of the 2008 IGF Meeting – Andimuthu Raja**

I am pleased to know that a book is to be released at the 3<sup>rd</sup> meeting of the Internet Governance Forum (IGF) to be held at Hyderabad from 3-6 December 2008.

I understand that the book will be a compendium of the proceedings of the 1<sup>st</sup> meeting of IGF at Athens in 2006 and 2<sup>nd</sup> meeting of IGF at Rio de Janeiro in 2007.

The Internet is an engine of economic activity much in the same mould as the invention of the wheel turned the fortunes of the world several centuries ago. The objective of technology should be to liberate mankind from the travails of every day existence and foster conditions for harmonious co-existence with nature.

The concepts of Access, Diversity, Openness and Security which evolved at Athens and the focus at Critical Internet Resources which sprung up at Rio will no doubt occupy centre stage at the 3<sup>rd</sup> IGF at Hyderabad. In the spirit of Global Co-operation; Representatives of Governments, Dynamic Coalitions, Regional Interest Groups, Non Governmental Organizations, Civil Society Institutions need to confer and share their experiences and forge alliances in order to ensure welfare of Human Society.

India is an old civilization and a young nation. It is a melting point of religion, culture, language and philosophies. The success of Internet and IT activities in India is due to its kaleidoscopic ethos that encompasses all facets of human thought and activity.

I applaud the effort of IGF in evolving the theme of the Hyderabad meeting as Internet Reaching the next Billion. India is fully committed to this philosophy of inclusiveness and will contribute to this global mission.

I wish the IGF all success in its endeavors.

## **Background Papers**

### **Engaging in the Internet Governance Forum: An Opportunity and Responsibility for Developing Countries - Tarek Kamel**

#### **The Internet: A Tool for Socio-Economic Development**

Development has always been a magical word and a dream for all nations throughout human history. Augmenting the benefits of all available resources of the age is, by all means, the main objective of all governments, business institutions, civil societies and international organizations, regardless of the different constitutions and action plans set to achieve this charismatic word "development".

Our age can be easily labelled as the information age, where information technology is an integral part of all aspects of life. The ever expanding information revolution is making the world smaller and smaller all the more, turning our spacious globe into a small village.

The development of nations at our age is hence tracked by the sincere efforts of all stakeholders to make best use of tools of information development, chief among which is the Internet.

The indisputable imprint of the Internet on our lives is clear to all. Despite its young age, the Internet has turned into a robust agent transforming all walks of our lives; the way we learn, work, communicate and do business. Its impact is not confined to individuals but is rather extended to be a key factor in driving world economies to new horizons. The Internet is all the more presenting itself as a pre-requisite for the global information society, to an extent that it has become one of the main pillars of socio-economic development at large.

With the increasing reliance on this revolutionary resource of the Internet, stakeholders from all sectors and all regions around the world have realized the importance of maintaining the stability and robustness of the Internet's infrastructure, and of ensuring openness and transparency of its policy development process, which has yielded to the emergence of the public debate on Internet governance.

The Internet was built on cooperation and, for the benefit of all people around the world, should continue its growth as it was initially promoted; by partnerships and dialogue among all stakeholders. It is therefore the mission of all stakeholders, including governments, industry, academia and civil society, to fulfil this concept and to make maximum use of all opportunities for the benefit of the global Internet community; that is why the IGF was brought to life.

#### **The IGF: A Forum for Multi-Stakeholder Policy Dialogue**

The establishment of the Internet Governance Forum (the IGF) by the United Nations Secretary General, in this context, is well recognized as the most significant and tangible outcome of the WSIS process, not only because it marks the beginning of a new process based on a balanced multi-stakeholder policy dialogue, but also because it has clearly reflected, in an un-preceded way, the understanding of all stakeholders that there will be no inclusive information society without "one Internet for all".

The IGF is foreseen as an opportunity for bridging divides between the various parties

involved and for bringing the developing countries into the ongoing dialogue; an involvement that is highly essential for the future development of the Internet. The IGF also enjoys a unique setup where all stakeholders can equally participate to all topics of discussion, where trust is built and partnerships take place. Additionally the IGF serves as an outreach and awareness forum, which paves the road for more global participation to other specialized forums of the Internet arena. It is a forum where professionals and non-professionals, from all over the world, can meet, discuss problems, explore solutions, share experiences and best practices and identify emerging issues. Although IGF is not a decision-making body yet it creates a prolific space for exchanging ideas and deepening dialogue among The first two meetings of the IGF, in Athens and in Rio, were successful in enabling multi-stakeholder participation and providing a platform where views could be freely exchanged by all involved parties. Different stakeholders gathered and were offered the opportunity to share experiences and coordinate activities in common areas of interest. Moreover, the handling of the main themes set out by those two meetings, have laid out a work path for the next phases of IGF.

## The Need for More Global Cooperation

Despite attained achievements and the non-trodden areas that the IGF meetings have so far explored, a lot more is expected to come as the IGF is getting more robust and mature. Additionally, with the dynamically changing nature of the Internet, new challenges are posed every day, necessitating reviews of public policies and demanding more global discussions within the IGF area.

An obvious example is the paradigm shift in content generation. Internet users are no longer at the receiving end; they are becoming the primary authors for content, sources for information and drivers for innovation. Relations are no more limited to “service provider-to-end user” ones but have extended to become peer-to-peer and meshed social networks, thus offering great opportunities for sharing of information and content. Content that is user-generated, developed in a bottom-up collaborative way, predominantly non-proprietary and not-for-profit, and most importantly content that is often in the user’s own native language reflecting his or her local cultural heritage.

There are also challenges generated by the technological innovation itself. Among those are issues that have emerged on the global Internet governance agenda such as SPAM, cyber security, privacy and data protection, and protection of children and minors on the Internet. Such challenges clearly require both national and regional actions, as well as cross-border cooperation in a multi-stakeholder discipline.

Equally challenging are issues related to the free flow of information and to network neutrality, where policies and regulations need to be carefully drafted to maintain the open and neutral characteristics of the Internet as well as its decentralized and end-to-end nature, which constitute its most important founding principles and underpin the amazing innovation that took place over the Internet.

## The Next Billion Users: Focusing on a Developmental Agenda

The Internet is developing and spreading in an unforeseen pace, with a number of online users exceeding one billion. Yet it is evident that connecting the next billion will not be a simple task, it will rather be a challenge that is expected to increasingly gain

importance within the IGF discussions. While the number of Internet users in developing countries is relatively low, yet growth rates clearly indicate that potential lies within those emerging markets. It is therefore necessary that the IGF focuses more on a developmental agenda, and thus pays more attention to the concerns and challenges that face developing countries and limit Internet penetration within their societies. Those challenges usually include issues such as extending affordable Internet access to under-served areas, overcoming high prices of international bandwidth, stimulating creation of local content, in addition to the development of human resources and capacity building.

Other barriers to Internet penetration, which is not confined to developing nations, but also extends to some developed areas, include the absence of a truly diverse and inclusive multilingual Internet, capable of addressing the needs of all users irrespective of their language or cultural identity. This is especially true in countries where mother-tongue languages represent the only means of communication among the majority of the population and where perfection of a second language is usually uncommon. In such countries, language barrier comes as a major hindrance that faces national governments in their endeavours to increase Internet uptake and promote online services.

It is therefore imperative for the international community to realize that, only by overcoming such obstacles, through cooperation among all actors, will it be possible for the Internet to flourish and expand to completely new horizons.

#### Engaging in the IGF Process: Developing a National Public Policy Dialogue

Internet communities of the developing world, more than others, need to multiply their efforts to engage in the IGF process, in order to increase their stake, and overcome the increasing divide. This can only be achieved, if all local partners and stakeholders get on board and actively participate to the process, especially if empowered by the support of the international community through outreach and awareness. This effective engagement in the IGF process is to some extent dependent on the ability of those stakeholders to engage in a similar process at the national level. It is therefore essential for developing countries to promote the notion of "public policy dialogue" on matters which are key to the development of the Internet within the country.

The Egyptian experience in this respect is no different, where local partners have been keen to initiate a public policy dialogue around a number of topics that are of specific importance to the Internet community of Egypt. Those include:

- Increasing broadband Internet access
- Fostering competition and promoting Egypt as a hub for regional and international cable systems
- Promoting the development of local content and applications and supporting the full implementation of Internationalized Domain Names (IDNs)
- Planning for making a smooth and risk-free transition to IPv6
- Building confidence in the use of the Internet, and its relation to cyber security
- Child safety online and the safeguarding of minors on the Internet

Finally, it is vital to stress that Internet communities of both developing and developed countries share great responsibilities, through their collaborative participation to this

historic IGF process. We all need to pave the way for citizens of our societies to get connected. We need to explore how to better utilize the Internet and innovate within its space for our communities to further develop and prosper. Most importantly, we need to be inclined towards the future and improvise on how the Internet will benefit the coming generations and act as a revolutionary agent for enhancing people's quality of life.

## Internet Governance and Intellectual Property Rights - Francis Gurry

Intellectual property (IP) protects the moral and economic interests of creators and innovators through a system of intangible property rights provided in national laws and international treaties. The Internet presents both challenges and opportunities for the IP system, and vice versa. WIPO is involved in three particular aspects of this relationship, which I will address here: IPRs and domain names, copyright and digital content, and the enforcement of IP in the digital environment.

### IPRs and Domain Names

Domain names were designed to serve the technical function of facilitating users' ability to navigate the Internet. Successful fulfillment of this function contributed to the transmutation of domain names into a variety of business, social, cultural, political or personal identifiers in the virtual world, and created considerable tension with recognized rights of identification in the real world, in particular trademark rights. WIPO addressed this tension in the *WIPO Joint Recommendation Concerning Provisions on the Protection of Marks, and Other Industrial Property Rights in Signs, on the Internet*, adopted in September 2001. The Joint Recommendation provides a guide to application of existing national or regional IPR laws with respect to legal problems resulting from the use of a sign on the Internet.

WIPO also undertook two international processes, the First and Second WIPO Internet Domain Name Processes, to develop recommendations concerning the intellectual property issues associated with domain names. The First WIPO Process addressed the interface between trademarks and domain names. The goal of this was not to create new IPRs for use on the Internet, but to give proper and adequate expression to existing, multilaterally agreed IPR standards in the context of the Internet and the DNS. The Second WIPO Process concerned a range of identifiers other than trademarks, namely, International Nonproprietary Names for pharmaceutical substances (INNs), the names and acronyms of international intergovernmental organizations (IGOs), personal names, geographical identifiers, including country names, and trade names, involving some difficult questions where there are no fully concretized international norms.

The Final Report of the First WIPO Internet Domain Name Process recommended the adoption by the Internet Corporation for Assigned Names and Numbers (ICANN) of a dispute resolution policy under which a uniform procedure is made available for disputes arising out of bad faith registration of domain names corresponding to trademarks. Since ICANN's adoption of the Uniform Domain Name Dispute Resolution Policy (UDRP) in October 1999, the UDRP has proven an effective expedient in the absence of a multilateral agreement covering domain name abuse. Utilizing a contractual base, the UDRP has filled a gap by providing efficient and cost-effective means of resolving disputes over bad faith and deliberate misuse of trademarks through the registration and use of domain names.

Since 1999, WIPO's Arbitration and Mediation Center has administered more than 28,000 domain name cases under the UDRP applicable to generic top-level domain names (gTLDs; e.g., .com, .info, .org), cognate policies adopted by country code top-level domain registries (e.g., .ch, .ir, .mx), and Sunrise and other policies adopted by

registries of recently introduced gTLDs (e.g., .asia, .biz, .info, .mobi) and applied in the initial roll-out phase. In 2007, WIPO's Arbitration Center witnessed an 18% increase over the previous year, administering 2,156 UDRP and related cases covering over 3,500 domain names. A mixture of individuals and enterprises, foundations and institutions used WIPO's dispute resolution procedure, and in 2007 alone named parties to WIPO domain name cases represented over 100 countries. WIPO domain name proceedings have so far been conducted in 15 different languages, namely, Chinese, Danish, Dutch, English, French, German, Italian, Japanese, Korean, Norwegian, Portuguese, Romanian, Russian, Spanish, and Swedish.

The DNS landscape appears set to undergo considerable change, following ICANN's announcement of a broad expansion of the number of gTLDs and introduction of internationalized (non-Latin script) domain names at the top level. These developments, coupled with growing anonymity of domain name registrations, the increased facility for speculative registration, and the proliferation of registrars, will have significant bearing on IPR concerns, for example, whether and how the existing framework may need to be adapted. WIPO will continue to provide leadership in the development of solutions to tensions arising from the intersection of intellectual property identifiers and domain names and other virtual identifiers, and contribute to efforts to maintain the reliability of the DNS. Specifically, WIPO will work to adapt domain name dispute resolution procedures and policy advice in the face of increasing complexity and rapid evolution of the technological, business and legal conditions underlying intellectual property disputes on the Internet.

## Copyright and digital content

The Internet enables users worldwide to access creative content to a degree hardly conceivable in the analog world. Digital technologies also facilitate new forms of collaboration among users in creating, sharing and transmitting content that is protected by copyright and related rights. Unfortunately, some of this access, use and sharing takes place without permission of the owners of rights in underlying content, and the process of rights clearances and copyright licensing, while finely tuned for the analog world, is still emerging for the online environment. This creates tension between rightsowners who seek to defend their rights against online infringements, and users who interact with peers and traditional creators in new and dynamic ways while expecting, nonetheless, a degree of respect for their individual privacy in conducting online activities.

From the mid-1980s, WIPO was active in exploring the relationship between copyright and digital technologies; this process of 'guided development' led to the conclusion, in December 1996, of the WIPO Copyright Treaty (WCT) and the WIPO Performances and Phonograms Treaty (WPPT), known as the WIPO "Internet" treaties. These treaties seek to ensure that creations are protected when disseminated through networks like the Internet. But they also aim at maintaining a balance between the owners of rights and the consuming public, for instance by clarifying that countries have flexibility to establish exceptions or limitations to rights in the digital environment. Countries may, in appropriate circumstances, grant exceptions for uses deemed to be in the public interest, such as for non-profit educational and research activities. The two treaties also recognize the role of technological tools in facilitating management of rights, by providing remedies against circumvention of technical protection measures (TPMs) and misuse or removal of "rights management information" (RMI). The WCT and WPPT entered into force in 2002, and currently more than 60 countries have ratified them.

The decade since the WIPO Internet treaties were concluded has witnessed an explosion of new technologies and online services, that have transformed consumer demand, behavior and expectations in relation to copyright content – file-sharing software and search engines are two good examples. Inevitably, such technologies and services have challenged rightsovers to develop new business models and user-friendly licenses for delivery of online content, while at the same time stimulating users to create new licensing tools to make it easier to share content among wider and wider circles. The Creative Commons system of online licenses is a good example of how copyright rights, including those provided in the WIPO treaties, can now be exercised in flexible ways that meet the needs of a wide variety of online user communities. Similarly, the availability of more than 70 open-source licenses provide software developers with a range of choices for using copyright to develop new tools based on existing computer code. WIPO is deeply engaged, through its technical assistance activities, in raising awareness concerning the broad range of copyright licensing tools that are or are becoming available.

Even with greater choice among licensing tools, there are challenges ahead for online copyright licensing. While copyright holders can dedicate their work to the public domain or assign rights to an open-source project, grant a non-exclusive or exclusive license to users for payment or free of charge, or reserve all rights, users must be properly informed of the consequences of choosing one license over another. And the limited availability of licenses that cover multiple jurisdictions is problematic in a global, online world, including where licenses are granted by copyright management organizations (CMOs). Exploration of options for multi-territorial or even global copyright licensing should be a matter of priority for policymakers, including at WIPO.

The evolution of rights management technologies such as TPMs and RMI, known colloquially as ‘digital rights management’ (DRM), also deserves mention. Access- and copy-control technologies have had a checkered experience and met with strong consumer resistance, particularly in the online delivery of music content, leading to their partial or in some cases, total abandonment by rightsholders. But the growing role of search engines illustrates the importance of RMI technologies, which enable users to locate and access the content they need, including identifying the creator and providing licensing information where appropriate. An array of digital identifiers is available or coming online to facilitate content location and access, from watermarking and fingerprinting technologies to tools like the Digital Object Identifier (DOI), the International Standard Audiovisual Number (ISAN), the Automated Content Access Protocol (ACAP) and the metatags that support Creative Commons licenses. The proliferation of RMI brings its own risks, however, including lack of interoperability among relevant software and hardware that can result from a diversity of standardization processes through which RMI technologies are developed, as well as the conditions under which they are made available to users. Interoperability of identifiers is important to ensure that content is accessible for multiple purposes, including to sustain online business models for content delivery, provide online access to content by beneficiaries of copyright exceptions, and enable users to find and use content in the public domain. WIPO organized a seminar on RMI in September 2007, and further activities are envisaged to enhance awareness of the multiple potential uses of digital identifiers and other RMI tools.

Another obstacle to greater access to online copyright content is the divergent state of the law concerning the liability of ‘Internet intermediaries’, such as Internet service providers (ISPs) and search engines, for infringement of IPRs that takes place online. Intermediaries currently rely on safe harbors, notice-and-takedown procedures and

copyright exceptions in certain national laws to avoid responsibility for illegal content on their networks, but laws and judicial decisions around the world are not consistent. While voluntary agreements are in the offing in some regions that cover, *inter alia*, the monitoring of online traffic, possible suspension of repeat infringers and the sensitive issue of identification of users, greater cooperation between rightsholders and Internet intermediaries at international level appears necessary both to support revenue streams and to provide users with easy and legal access to the content they seek.

Finally, the issue of the appropriate balance between rights and limitations and exceptions in the digital environment is currently front and center on the agenda of WIPO's Standing Committee on Copyright and Related Rights (SCCR). While users in the analog world can take advantage of fair dealing, fair use or other statutory exceptions – by photocopying a page, showing images to students in a classroom using a slide projector, or making a Braille edition of a published textbook – the ability to access and use works in digital form under copyright exceptions is more complex, particularly when automated rights management systems are involved. Supported by several studies commissioned by WIPO in recent years, the SCCR is now examining the many questions involved in access to digital copyright content under exceptions for educational activities, for libraries and archives, and to meet the needs of visually-impaired persons.

## IP Enforcement in the Digital Environment

The above description of online use of trademarks and copyright content reveals the range of legitimate, yet sometimes diverging interests that must be involved in any discussion on enforcement of IPRs – rightsholders, users, online businesses, ISPs, and consumers, as well as Governments. IPR enforcement issues are also prominent on the agendas of bilateral trade negotiations and in emerging international frameworks. Through its Advisory Committee on Enforcement (ACE, created in 2002), WIPO provides a forum for informed policy debate among multiple stakeholders on a range of IPR enforcement issues, including online infringements. WIPO also assists its Member States to develop balanced IPR enforcement standards through legal advice and technical assistance.

WIPO has partnered with other international institutions in organizing the biennial *Global Congress on Combating Counterfeiting and Piracy*. A public-private partnership, the Congress brings together senior public sector representatives and business leaders to pool experience and develop strategies against counterfeiting and piracy. The issue of counterfeiting and piracy over the Internet has become a focus at the Congress, and the last Congress (February 2008) produced a set of recommendations on the subject.

Private international law issues are often at the heart of online IPR enforcement concerns. With the global accessibility of material on the Internet, litigation over online infringements often involves cross-territorial action. This may require establishing international jurisdictional competence, determining applicable law and enforcing a decision abroad. These issues are not new, but it can be difficult to apply existing concepts to disputes that involve global Internet transmissions. For instance, in the offline world, criteria have been developed to fix the place of jurisdiction, such as the place of damage, the harmful event, or the place of doing business. But it is not always clear how these criteria can be applied to online infringements, or how to calculate damages for the harm suffered. A body of law is emerging on such issues at national and regional level, but international harmonization is marginal at best. WIPO examined private international law issues in its *Survey of Intellectual Property Issues on the*

*Internet* (2002), and could play a more active role in promoting consistency of approach to private international law issues in the context of online IPR infringement.

A similar issue relates to the cumulative effect of 'non-commercial' online infringements. Currently, a 'commercial purpose or scale' is a condition for criminalizing IP-infringing acts in many countries. Likewise, criminal copyright infringement under the 1994 TRIPS Agreement is limited to willful copyright piracy "on a commercial scale". But there is no commercial purpose, and no or little cost, behind many of the acts of making available of unauthorized content over the Internet; rather, users often engage in file-sharing as a part of a free-distribution ethos. Depending on the national law involved, certain civil and criminal remedies may not be available, regardless of the scale of the infringement and the damage caused. In such an environment, the current condition of commercial involvement may need a fresh look.

## Conclusion

The above discussion shows that 'governance' of IPRs on the Internet may come from a number of sources – international IPR treaties and national laws, bilateral agreements, 'soft-law' instruments and guiding principles, as well as voluntary, self-regulatory arrangements among stakeholders. As the custodian of the major IPR treaties and through its comprehensive technical assistance programs, WIPO is a natural focal point for discussion on how IPRs and the Internet can evolve in harmony, including where new forms of behavior online may justify innovative approaches.

## **The Role of the IGF from the Viewpoint of the Multi-stakeholder Process: The Council of Europe's Perspective - Maud de Boer-Buquichio**

The Internet Governance Forum (IGF) has considerable value for the Council of Europe. Our aim is to make sure that the Human Rights enshrined in the European Convention on Human Rights are applied online, as much as they are applied offline. The IGF pools together information, ideas and expertise about the challenges of the Internet and, in doing so, attracts attention and facilitates action with a potentially global reach. It brings people together and helps them to understand and to see these challenges more clearly. It builds relationships between actors that may never have met otherwise. It strengthens the implementation of the Millennium Development Goals. Ultimately, the IGF is a community through which we can underscore and reinforce human rights and democratic freedoms on the Internet so that people can enjoy a maximum of rights and services subject to a minimum of restrictions. This makes the IGF an ideal platform for dialogue and cooperation.

The Council of Europe invests much time and energy in the IGF because it sees the potential it offers. It allows the Council to explore potential work streams, to test and validate concepts and ideas, to be better informed about and to anticipate emerging trends, to render tools and best practice more visible and more accessible in all regions of the world. This is particularly useful for the Council of Europe with regard to certain of its international law treaties, such as the Convention on cybercrime and the Convention on the protection of children against sexual exploitation and sexual abuse, which are unique in the world and have a global reach because they can be signed and ratified by non-European states.

The 'take away' value of the IGF is stimulating the Council of Europe to be ever more productive in its own work, in particular in developing a 'people-centred' Internet dimension to its standards and tools. The empowerment and protection of children on the Internet, human rights guidelines for internet service and online games providers, standards for freedom of expression and internet filters, the creation of a new notion of the 'public service value' of the Internet, e-participation, Internet access for people with disabilities and guidelines to counter the risks of counterfeit medicines on the web, are just some of the examples of the Council's work which is inspiring the development of European public policy regarding the Internet. For the European Court of Human Rights, such Council of Europe standards, tools and benchmarks provide a useful source of reference in interpreting the rights and freedoms contained in the European Convention on Human Rights.

The influence of the IGF can also be seen in the subsidiarity approach to internet governance with the creation of national and regional IGF-style events such as the European Dialogue on Internet Governance (EuroDIG) which the Council of Europe is hosting in October 2008. The multi-stakeholder approach to dialogue, fostered by the IGF, is undoubtedly influencing the way such events are being developed and carried out. For example, preparations for the EuroDIG are placing a premium on dialogue and the pooling and sharing of expertise from all stakeholder groups. This suggests that the IGF is not only influencing the substantive outcomes and directions of work but is also positively influencing the way in which dialogue is being constructed and organised. It has already had an impact on the way we work generally, by reinforcing the

multistakeholder approach in various areas of our work.

In this connection, the IGF is also actively listening and reacting to the needs and concerns expressed through this dialogue because, for example, we can already see that calls by the Council of Europe and others for public participation in Internet governance, including gender equality, youth participation (not only their protection) and people with disabilities are either emerging and stirring as priorities for open and balanced dialogue in the processes of IGF and IGF-style events. The IGF is therefore acting as catalyst for change in the way that people discuss and decide on priorities and concerns regarding the governance of the Internet, in particular by providing a shared collaborative (mental) space in which to meet, exchange and cross-fertilise knowledge and ideas.

From the perspective of an inter-governmental organisation (IGO), the IGF is helping the Council of Europe to break new ground in the way in which governments communicate with other stakeholders, in particular the private sector and civil society. In fact, this is the only way in which solutions to the challenges of the Internet can be found, especially considering the predominance of the private sector to advance the Internet via the delivery of applications and services and of the users to use them. The role of the IGF as a model for communication between governments and other stakeholders is increasingly enabling IGO's, such as the Council of Europe, to foster multi-stakeholder dialogue in intergovernmental settings.

In conclusion, from the Council of Europe perspective the IGF is an efficient, mutually reinforcing process for Europe and the world in driving forward a culture of human rights, rule of law and democracy for the Internet. The increasing volume of Council of Europe deliverables, the resulting 'network effects' and, no doubt, its cost-effectiveness, clearly demonstrate that the IGF plays a very valuable role.

## **The Role of the IGF from the Viewpoint of the Multistakeholder Process - Catherine Trautmann**

Could the IGF be anything else than a multistakeholder process? In the beginning things could have been different, but very early on the preparatory phase wisely adopted this approach, to such an extent that to ask this question now is to give the answer: the IGF is set to be not only a multistakeholder process, but possibly the one to provide new patterns for open and transparent fora on many other subjects.

For that matter, the beauty of the Tunis Agenda is that its procedures fit perfectly with its object -Internet and its governance- to the point that they almost blend. I tend to believe that this was not only a mere compromise followed by felicitous randomness, but rather a conscious agreement, which gave birth to such a framework.

Indeed, Internet's indivisible yet uncapturable wealth, lies in its diversity. No single State, nor any corporation, can claim ownership over such an intertwined network. In any case, such a monopolistic capture would without any doubt severely cripple Internet's capacities, and on the long term, threaten its very existence.

However, and this is a good thing, many claim a degree of ownership of the principles and processes which altogether are labelled « Internet governance »: in this sense and through the IGF, all types of interest groups express their views in a horizontal way.

Such collaborative work already delivered results and improvements, in terms of access, but also of openness, diversity and security. Those familiar with the IGF would have recognised the four « pillars » around which sessions are generally organised. Although it is difficult to create a hierarchy amongst these goals, access seems to be at the moment the main motor, with the « next billion » objective and development at its core, leading in turn to a polycentric, equal Internet for all. In fact, since many issues such as the ones above are multi-disciplinary by nature, the choice of topics itself is deeply rooted in the multistakeholder format. And it is actually striking to observe that in each category some very concrete breakthroughs have been made over the past years: the astonishing growth of Internet users, the internationalisation of Domain Names, the transition from Ipv4 to Ipv6, all the way to the recent joint effort to fix a security breach in the core DNS architecture of the Internet...

There is though a portion of Internet governance observers who pretend it would be even more efficient and to some extent, democratic, to revert back to mere intergovernmental negotiations. I'm writing "back to intergovernmental negotiations" because I strongly believe such a multistakeholder process as the IGF's doesn't belong to some « pre-Nation-State » past, but very much could be more adapted to complex contemporary, multidimensional issues such as all the ones our modern world has to deal with: global warming, migrations and so on... To be perfectly clear, there is in fact room for both types of gatherings, precisely because they don't share the same cast, processes nor goals.

The IGF is all about horizontal discussion, not pre-legislative drafting: its very interest derives from the stimulating exchanges it bears, which are not necessarily bound towards diplomatic or legal consequences. This allows for more humble, but also more frank and in-depth debates about what really is good for the Internet as a whole. For the representatives and the caucus they may gather in further, the aim in fact lies more in a sort of cooperation, facilitating in turn the convergence of public agendas and policies,

including on education, economy, research, health or eGovernment.

IGF gathers representatives from different groups and geographic regions, who certainly wouldn't have met otherwise (like a snowball effect). The now customary exchange of best practices is enhanced from this diversity.

To be exhaustive, a proper multistakeholder process has to encompass openness, transparency and accountability in order to be successfully collaborative.

Yet, there is maybe one flaw in all this: not all the stakeholders are equal in terms of financial means, or staff size, or even recognition. While for the latter, efforts are made to ensure equality of treatment, the money can remain a problem for the participants to travel to other continents every year. Of course the IGF online and the consultation phases certainly help, but sometimes it is just better to be physically present -as paradoxical as it may sound for people concerned with what consists mostly in dematerialisation-.

That is why in its resolution of January '08 relating to the Rio de Janeiro Forum, the European Parliament proposed to go towards the establishment of a European IGF, which far from being redundant, and learning from the experience of the emerging national IGFs, could provide the occasion for smaller structures and interest groups to directly express their views and shape an evermore consistent « European » agenda for internet governance.

For a legislator, such fora are particularly interesting and valuable: not only is it a sort of « crash course » on hot new developments, but it is also a place to compare new initiatives and approaches, and mostly, to mutually anticipate what lies in the near future. I think that is what citizens expect from their representatives: that they understand and anticipate their major interests and needs, and Internet definitely belongs to this category.

That's why EP delegations attended both IGFs so far (In Athens 2006, the delegation comprised M. Harbour, L. Van Nistelrooij, L. Herrero-Tejedor, M. Badia i Cutchet, J. Chatzimakakis, F. Pleguezuelos Aguilar and myself; the 2007 Rio meeting was attended by M. Harbour, M. Badia I Cutchet, G. Hökmark and myself). In addition to participating in main sessions and workshops, I think I can speak for my colleagues when saying that we all saw great value in informal exchanges with other participants.

From my point of view, it is beyond doubt that such interactive multistakeholder character that allows involvement of different actors on an equal footing in an open and inclusive way should remain a guiding principle for the IGF; moreover I can only insist that some of these ideas and structures could be re-adapted to other contexts or policy areas, where they would help building up consensus on allegedly unsolvable issues involving many interests: indeed, what could be more complex than the Internet? In addition, the multinational flavour of this process is very reminiscent of the European Union's own internal debates and research of compromises and could even enhance this latter one.

Internet is a new place to communicate and to live: the multistakeholder approach, as a participative political process, is more than a means, it is almost a goal in itself. Such an objective mimics the open, free, secure Internet that we defend. The European Union - Parliament and Commission together, and I believe also the Member-States-, helped by the relentless activity and invaluable inputs of the Council of Europe, will continue to apprehend Internet's future developments with both optimism and due caution, in order to pursue this grail.

## **Preserving the Internet Model: Multi-Stakeholder Processes in Practice - Lynn St. Amour**

The Internet today faces a range of challenges that could impact its distributed, end-to-end and open nature. This nature has characterized the Internet's development and users have come to take it for granted. Some of these challenges are related to service and architecture, including, but not limited to, the Network Neutrality debate in the United States and other countries, initiatives on next generation networks, and discussions over the future of access regulation (unbundling) and competition. Other challenges relate to the impact on Internet architecture and business models caused by changes in Internet usage patterns and the explosion of content creation and consumption.

These challenges are, in many ways, born of the Internet's success. This "network of networks" is enjoyed and shaped by an increasingly diverse range of players: from its users, to those who manage the networks that comprise it, to nations whose economic competitive advantage increasingly depends upon it. The Internet has shown itself to be supremely flexible and adaptable, yet these growing economic, cultural, and political challenges apply pressures that could well change some of the principal elements underlying its success.

The Internet Society (ISOC) believes that the Internet's future depends on a renewed commitment to the principles that have made it so successful to date. For each of the various challenges listed, ISOC is concerned that there has been insufficient focus on the need to preserve the fundamental user-focused principles upon which the Internet is built. The United States' National Academies voiced their concern in this regard in their 2001 publication "The Internet's Coming of Age":

The design values of the Internet have been reinforced by the environment in which the Internet was developed. In its early years as a cooperative research project, it was isolated from some of the stresses and strains associated with commercial marketplace interactions... Whether and how the traditional Internet design values will be maintained is an important issue for the future of the Internet. (see note 1)

The importance of maintaining these design values, and the fundamental principles that are based upon them, is at the heart of many of the Internet Society's programs. It is also why we find the Internet Governance Forum (IGF) with its multi-stakeholder discussions, to be an important venue.

### **The Future of the Internet and Multi-stakeholder models**

The Internet is successful in large part due to its unique model:

- shared global ownership,
- collaborative engagement models,
- development based on open standards (which are also openly developed, with participation based on knowledge rather than formal membership),
- key principles (such as the "end-to-end principle"),

- freely accessible public, multi-stakeholder processes for technology and policy development.

Together, these elements have become known as the “Internet Model”. This model relies on collaboration and processes that are local, bottom-up, and accessible to individuals around the world, whether they are from research, business, civil society, academia, or governments.

The openness and transparency of the Internet's technical development and its associated policy development processes, are intrinsic to the success of the Internet itself, and to maintaining this single, interoperable system of networks – the global Internet. This openness and accessibility drives much of the value of and in the Internet.

The Internet's development has always involved, and indeed *depended upon*, broad and diverse inputs. This is essential as it is a platform on which individuals, organizations, and users themselves build infrastructure and services that are globally accessible.

During preparations for the World Summit on the Information Society (WSIS) in 2003 and 2005, when the issue of Internet governance gained the attention of the world's governments, the openness and diversity of the Internet model posed a challenge to the traditional intergovernmental United Nations process. But the well-developed experience of the Internet community, combined with the willingness of all stakeholders to rise to the challenge of open discussion contributed to the recognized success of the Summit. These same elements also underlie the success of the IGF, which is proving the worth of bringing stakeholders together to openly and frankly discuss issues of Internet governance, and to find ways of working freely together to meet the new opportunities posed by the Internet's rapid development and acceptance.

The Internet is a living, operating ecosystem and, as such, it must evolve collaboratively. Challenges cannot be tackled in the abstract – the Internet is no longer a science project, but a global operational network supporting our real-world economy. Instead, solutions in these and other areas will – and must – evolve as specific needs drive creativity and invention. This concept is proving to be as true with regard to governance as it has been with the Internet as a network.

## Bringing the Next Billion Users Online

The Internet provides technology building blocks upon which everyone's global networking experience is based. Looking forward to the next ten years, a combination of technical and social factors will affect the Internet and require further development, if we are to rapidly bring the next billion people “on-line”, and the billions after them.

Three key areas that deserve special attention are:

Scaling – including everything from ensuring continued global addressing with a routing infrastructure that keeps pace with growth, to supporting the many different uses, applications and services, and cultures and industries that the Internet enables.

Trust – encompassing many facets of information sharing, particularly the security, identity, and accountability required to provide an environment in which we can carry out our electronic lives with the individuality and confidence we enjoy in the physical world.

Multilingualism – entailing providing support for multiple languages in an environment striving for global communications and universal accessibility. It is a huge challenge –

technically and culturally – yet critically important. And, it is only the tip of the iceberg as we strive to support the very different needs and desires of all people across the world.

While these are clearly challenges, it is important to remember how far we have come, with the Internet Model and its underlying principles ensuring stable, global development through multi-stakeholder environments.

## The Internet: Collaboration and Key Abilities

So what was it about the Internet that supported such rapid and innovative developments? The key elements are a continued commitment to an open Internet technology platform; organic, competitive development of Internet service provision models; collaborative development; and shared responsibility for the well being of the global Internet.

And what makes some innovations in Internet space succeed and others fail? In many cases the answer is only possible with hindsight, but a common ingredient to success stories is their spontaneous acceptance by ordinary users who found solutions that met their need; solutions that both emerge from and enable the ability to (see note 2):

- Connect
- Communicate
- Innovate
- Share
- Choose

In the dynamic, innovative, and rapidly evolving Internet environment, centralized decision-making, undue interference, and short-term policy constraints bring with them great risks. The walled gardens – the systems that eliminate choice or dictate user experience – are destined to fail. Attempts to force fit existing political or business models into cyberspace often fail as well.

The way forward is through continued evolution of the current collaborative efforts that coordinate the Internet's resources and develop its operational and technical standards. Through the past decade, we have seen these institutions grow and evolve, both in number and in scale. They have led stakeholders from many disciplines, cultures, and regions through discussions to resolve some of the trickier issues facing all of us as well as the Internet itself. In the post-WSIS environment, the need for multi-stakeholder models is even greater as we all work to address similarly challenging issues of Internet governance.

Certainly, as the Internet becomes increasingly multilingual, it will become more multi-cultural, more exciting, and more unpredictable. Hence, forums such as the IGF have a valuable role to play. The Internet must remain open to innovation, in governance as well as technical development, or its great potential will be lost.

The breakthrough in networking technology that sparked the Internet's development was the breaking down of physical barriers between networks, and establishing common protocols to share information across the diverse local network computing environments. Similarly, the challenge for policy makers and regulators today is to break through barriers, retaining enough local control while supporting creativity and individual possibilities. Ensuring that all voices are heard and that all processes are open and

transparent is the only way to steer this course. Therefore, we must respect the open and decentralized nature of the Internet and its supporting processes, which are fundamental for innovation.

## The future of the User Centric Internet

The Internet of today has been shaped by the fundamental principle that the user is in charge of his or her online activities: today's users choose and control where they wish to go on the Internet, who they wish to communicate with, the content and communities they wish to access, and the applications they wish to use. Most importantly, user centricity and the "intelligent edge" architecture of the Internet have driven innovation, the digital economy, and the Information society while measurably contributing to the wealth of nations. The Internet Society believes that these characteristics have made the Internet a unique tool and that a user's ability to wield this tool should not be fettered.

The Internet Society believes that some of the current debates mask a more important discussion related to the future of the Internet and the preservation of the underlying principles that have made it the success that it is today.

This is a discussion that merits much greater consideration as it has a direct bearing on the way the Internet will evolve and the benefits it may enable. For example, the success of the Internet in the future depends on how we answer some fundamental questions, including:

- How do we maintain and improve upon the principles that have driven the overwhelming success of the Internet?
- Will the Internet in the future be accessible and open as a result of new investment, new networks, and new business models; or will the new networks be closed, tiered, and exclusive, carrying only certain content to certain subscribers?

These are complex issues, and the Internet Society believes that the guiding principles for decision making must be the preservation of the Internet's user-centricity through its design values and its principles of openness, transparency, end-to-end, edge-based intelligence and, above all, user choice. Architectures, business models, and policies that fundamentally shift away from these design values are fundamentally shifting the character of the Internet.

Ensuring these principles remain at the heart of the Internet's development will be essential to the Internet's future growth and success. The IGF has an opportunity to play a key role as its multi-stakeholder process echoes so many of the principles that underlie the Internet Model. We encourage the IGF to defend these principles and the design model that has stood the Internet and mankind so well. And in doing so, you will demonstrate to the world the strength of the Internet model and the value it can bring.

## Notes and Comments:

[http://newton.nap.edu/html/coming\\_of\\_age/na\\_statement.html](http://newton.nap.edu/html/coming_of_age/na_statement.html)

See also the National Academies' paper and <http://www.ietf.org/rfc/rfc1958.txt>

As noted in the text, central to the Internet's success and growth is that individuals, organizations, and users have the ability to truly affect the course of its development. At

the June 2008 OECD Ministerial meeting on the future of the Internet economy, a group of seventeen Internet technical organizations presented the Ministers in attendance with a memorandum. The document, which emphasizes the importance of the multi-stakeholder model, called upon governments, civil society, the private sector and individuals to ensure that people's abilities to enjoy the benefit of the Internet are preserved as the Internet expands.

These abilities are:

**The ability to connect:** The end-to-end architecture of the Internet is essential to its utility as a platform for connecting people, and thus for education, innovation, creativity and economic opportunity. In an information society, to support human development and protect human rights, all people need to have affordable access to an open and neutral network, and to the services that it provides.

**The ability to communicate:** By enabling communication on an unprecedented scale, the Internet is a revolutionary medium for expression and collaboration. Genuinely free communication can only be guaranteed when privacy and anonymity are assured in principle, and where content controls are an exception rather than a rule.

**The ability to innovate:** The remarkable growth of the Internet and its applications follow directly from the open model of Internet connectivity and standards development. Policies must encourage open technical standards and protocols that are developed through open, transparent and accessible processes.

**The ability to share:** The Internet is based on a "many-to-many" architecture, making it a powerful tool for learning, sharing and collaborating. It has enabled the emergence of a global community that has developed many key components of the Internet, such as the Domain Name System (DNS) and the World Wide Web. This characteristic must be protected by fostering balance in the system of intellectual property rights, which is essential to scholarship, education and collaboration.

**The ability to choose:** The hope and expectations for the continued development of Internet-related capabilities is that this will speed economic growth and social progress. Such development can best be realized in an environment that is not encumbered by excessive governmental or private controls on its component technologies, infrastructure, or content. Therefore, policies must promote competition and diversity in telecommunications, Internet services, products and applications.

For more information on the memorandum to the OECD, see:

<http://www.isoc.org/pubpolpillar/docs/oecd-technical-community-memorandum.pdf>

[http://www.isoc.org/pubpolpillar/issues/oecd\\_ministerial.shtml](http://www.isoc.org/pubpolpillar/issues/oecd_ministerial.shtml)

## **Why the IGF matters to World Business - Subramaniam Ramadorai**

Building a people-centered, inclusive Information Society for more countries and individuals cannot be achieved without greater dialogue among all concerned. That means a fruitful, meeting of the minds from members of civil society, the technical community, business, governments, and relevant international organizations what is commonly referred to as “multistakeholder dialogue.”

The challenge ahead lies in bringing benefits and opportunities to the next billion Internet users including those living in remote parts of developing nations. To do so will require accomplishing four things: Putting in place the necessary conditions to attract investment, building education and skills programmes including multilingual tools, fostering entrepreneurship, and promoting innovation. All of these elements will require tapping the experience of all stakeholders, to develop and implement effective national policies and frameworks.

Business from around the world is convinced that one of the most important global forums where productive discussions are taking place among various stakeholders is the Internet Governance Forum (IGF), one of the processes set up to help achieve the objectives laid out by the World Summit on the Information Society (WSIS) in 2005.

A number of global level discussions have sprung up in recent years to deal with the rapidly evolving developments in information and communications technologies (ICT), for example, at the Organization for Economic Cooperation and Development (OECD), the Asia-Pacific Economic Cooperation (APEC), and the International Telecommunication Union (ITU). But these are intergovernmental in nature and include non-governmental stakeholders in varying capacities. The Internet Corporation for Assigned Names and Numbers (ICANN) includes all relevant stakeholders, but it deals with a specific agenda linked to ICANN's role in the management and technical coordination of the Internet's domain name system.

Only the IGF offers a truly multistakeholder discussion forum where all members are on an equal footing, by form and by definition. It is the only global-level space for discussions that cover the breadth and depth of Internet governance policy issues. The IGF offers a vital place to discuss Internet governance issues from infrastructure and access to the free flow of information and security matters.

Business firmly believes the IGF's discussion format, with no negotiated outcome as an objective, is the main reason it has been a success since its first meeting two years ago in Athens. In reality, many of the participants at the IGF never get a chance to discuss the critical issues which are raised at the IGF in any other forum, and may never otherwise engage with the range of participants who come to the IGF.

The IGF is also an important meeting ground for the exchange of experiences and best practices, one of the surest ways to foster the continued sound development and further expansion of the Internet in all regions of the world. Sharing case studies of countries that have created successful enabling environments, and of those that faced challenges and learned from their less successful choices, represents the kind of important dialogue IGF facilitates.

One of the commitments made at WSIS was to stimulate multistakeholder dialogue at

national and regional levels as well. Business also believes this is essential to build effective Internet-related policies and legal and regulatory frameworks, which cannot be achieved with the input of any single stakeholder group alone.

The IGF has helped boost and create national and regional exchanges on Internet governance issues with all relevant stakeholders.

In this regard too, the IGF is a unique opportunity where relationships have been forged that have translated into work relationships and initiatives at national and regional levels.

Like public-private partnerships, these projects, entered into by various stakeholders to accelerate digital transformation, are crucial to raising access to the Internet in developing countries.

For developing country stakeholders in particular, the IGF can be a focal point to raise awareness nationally and regionally about these issues. They can also participate in the event itself, using their limited time and resources to build contacts, expand networks, and explore opportunities to partner and join forces. They can also gain first-hand knowledge and share their experiences and challenges that many others around the world need to hear. The IGF can thus play a critical role in the creation of a more informed society for more people around the world

The International Chamber of Commerce (ICC) has been involved from the very beginning in the dialogue on how to create a more inclusive people-centred information society. By invitation of the host countries of the WSIS, ICC created the Coordinating Committee of Business Interlocutors (CCBI) to coordinate world business participation in the processes leading up to and culminating in the two WSIS summits held in Geneva (2003) and Tunis (2005).

In mid-2006, many CCBI members decided to create Business Action to Support the Information Society (BASIS) afterward, to serve as a vehicle for world business contributions to the global discussions on ICTs and Internet governance and as an outreach and advocacy initiative to bring business priorities and experience to these forums.

Currently, several BASIS members serve on the IGF's Advisory Group, bringing business experience and views to the setup and functioning of the forum, and to setting its substantive agenda. BASIS and members also participate actively in the preparations for the IGF and at the actual event.

Broadly speaking, BASIS works with governments, civil society, intergovernmental organizations and the public, to ensure the necessary legal and policy frameworks are created so that business, a major investor in and innovator of Internet and ICT technologies, services and applications, can help spread the benefits of the information society more widely across the world.

With a global membership made up of companies and associations from a wide range of business sectors, BASIS has a wealth of experience to share in the global dialogue on these policy issues. The initiative also raises awareness in the press on how business can help, and what conditions are needed for business to continue investing in technologies and infrastructures.

In our experience, the IGF has also played an important role in raising awareness about Internet governance issues and how people can get involved---nationally, regionally and internationally. This has led to many unquantifiable but positive impacts.

The IGF is also giving stakeholders the experience of working together, which may sound like a bland fact, but in reality this is a major shift. The IGF has allowed stakeholders to experiment with format and exchange on substantive issues in new ways. We see the impact of this model in many other processes and forums where stakeholders are taking this experience and adapting it as needed.

Multistakeholder dialogue now has a home with many rooms. But much can still be learned from the IGF to improve policy development on Internet issues.

As Chair of ICC's BASIS initiative, one of our objectives is to maximize ICC-BASIS members' networks to bring more business experience into the IGF. At the same time, BASIS is showcasing to more business men and women around the world all they will gain by engaging in the IGF discussions.

The IGF in Hyderabad, India 3-6 December 2008 is a particularly special opportunity to continue the productive exchanges from Athens in 2006 and Rio de Janeiro. The IGF promises to be even more interactive, by scheduling workshops that start focused discussions with translation provided, and a debate in the afternoon centering on the main points made in the workshops.

Bringing the next billion users online sounds daunting. But with the ongoing commitment of business and government, along with other relevant stakeholders, to work together to do the right things, this goal is achievable, and the IGF provides a unique substantive platform.

## **An Industry Executive's View of the Role of the IGF from the Viewpoint of the Multistakeholder Process - Naoyuki Akikusa**

Reflecting on my own experiences as Chairman of the Global Information Infrastructure Commission (GIIC), the private sector has come to the realization that a secure and reliable Internet can foster greater use of ICTs to enhance commerce at the local, national, regional, and international levels.

We, as ICT industry leaders, should continue to promote the innovation and development of services, applications, content, devices and networks that allow more users to share in the benefits of the Internet. This has prompted my ICT business colleagues, and myself, to get involved with the Internet Governance Forum (IGF). The IGF is a multistakeholder forum that allows for the exchange of ideas and suggestion of solutions to pressing issues about the Internet. The IGF allows all its stakeholders, for example, to learn what needs to be done to address the newest challenges facing the Internet: Internet governance. It is critical that continual cooperation among all stakeholders persist to allow for the innovation and growth of the Internet.

Industry leaders are also focusing discussions on the major IGF themes, namely critical Internet resources, access, openness, security and diversity.

With regard to critical Internet resources, some proponents have suggested introducing the intergovernmental governance system for the Internet; we do not propose a change in the governance structure of the Internet. Rather, we welcome dialogue on how we can secure the neutrality and transparency of the current governance system.

Internet access is also being discussed among heads of ICT businesses in regards to how they can assist in the education of users to provide affordable solutions to those who have yet to connect to the Internet. The key to increasing Internet access is realizing the role of public policy and regulation on lowering overall connectivity costs.

Once access is granted to users, then the topic of discussion turns to how open the Internet should be. Balancing "government regulation" with "private self-regulation" and "copyright protection" with "practical use" of content is critical for an openly accessible Internet and information sharing of artistic and literary works.

With talks on openness, concerns about security have come to the forefront of discussions. We have to realize that regional and national efforts cannot effectively respond to all problems because the Internet extends beyond national boundaries. It is very important to share technical know-how and best practices on a global basis. For example, I have come across the Computer Security Incident Response Teams (CSIRT) as an effective framework to provide rapid notification of security incidents and adopt measures against current and future threats.

Discussions on diversity have brought attention to a growing need for accessible multilingual software applications and Internationalized Domain Names (IDNs). We hope to see the international community support the diversity of the Internet by continuing to fund such diversification projects.

For any ICT business executive, these are critical management issues that are becoming more recognized as components for smooth business operations actualized by the Internet. Therefore, I have taken a more hands-on approach by participating in

events like the IGF Tokyo Conference, the 2007 IGF in Rio de Janeiro, the annual Global Information Infrastructure Commission (GIIC) Meeting and the OECD Ministerial Meeting on the Future of the Internet Economy to draw attention to these issues and other themes that are of interest to ICT business executives.

In May 2007, I attended the IGF Tokyo Conference: The Future of the Internet hosted by Nippon Keidanren, the Global Information Infrastructure Commission (GIIC) and the United Nations. We discussed the importance of all stakeholders sharing information, including best practices, and promoting international cooperation to include the views of developing countries, as well as, small and medium-sized businesses. Furthermore, stakeholders focused discussion on how to strike a balance between “IPR and the free flow of information” and “governmental versus self-regulation” to ensure openness.

At the 2007 IGF in Rio de Janeiro, the focus of discussions was on access. In partnership with iGrowthGlobal, the World Information Technology and Service Alliance (WITSA), Packet Clearing House (PCH), and the Nippon Keidanren, the GIIC organized a workshop on access entitled, “Qualifying, Quantifying, and Meeting the Challenge of Internet Access Costs.”

Critical lessons were also taken from the IGF in Rio about how to improve access to the Internet in the future. The first lesson is the development of local traffic exchanges (IXPs) to provide greater Internet access and lower connectivity costs. Second, existing regulations in certain countries do not adequately support the development of IXPs, or encourage the emergence of local Internet service providers (ISPs). A flexible legal, policy and regulatory regime is required to allow such services. Third, policy makers should avoid creating “islands of local access” by ensuring interconnection of emerging networks.

A new theme emerging from multistakeholder discussions are the linkages between ICT and the Internet and the environment. I addressed this topic in Rio. The issue came also to the fore of discussions at the GIIC Meeting on “The Power of Green: In the Future of ICT, Is It Part of the Problem or the Solution?” and the 2008 OECD Ministerial Meeting in Seoul. The use of what I call “Field Innovation,” a methodology for improving business processes by making known the key elements and interactions of people, processes and ICT, could be used to create an exchange of optimized ICT that results in transformative innovation on global issues, such as environmental challenges.

The topics about ICT and the environment centered on ICTs’ contribution to monitoring, measuring and addressing climate change, ICTs’ role as an “enabler” for behavioral and economic changes in other industries which can reduce carbon demand, and the ICT industry’s efforts to reduce its own electrical power demand through innovation and cooperation.

As a result of intensive discussion at the GIIC annual conference, recommendations on how the ICT industry can contribute to improving the environment were published in the “Tokyo Declaration.” One recommendation included reducing the environmental impact of ICT by lowering electricity consumption. It is suggested that replacing power-hungry equipment and services and promoting the development of low-power innovative technology were viable solutions. The ICT industry can also promote responsible Internet use to reduce spam and help communication carriers, ISPs, and other network operators cut additional energy costs that are incurred in order to deal with Internet spam. Another recommendation is to lower the environmental burden by using the ICT. The applications of ICT could maximize the benefits in efficiency of other sectors. For example, video conferencing and online transactions reduce the physical movement of persons and goods. Energy Management Systems by using ICT lower dramatically

power consumption in businesses and homes. ICT is also a tool to help promote a healthy environment by enforcing measurement and compliance to environmental standards and enabling businesses to institute new environmental-friendly ICT practices.

To achieve the proposed recommendations, early action is needed to deliver the most cost-effective policy reforms and practices for the environment. Thereafter, the ICT industry must have better information exchange about its studies and analyses to all parties. This will demonstrate that the ICT industry exhibits good environmental stewardship. Cooperation between leaders of the ICT industry and the public sector, particularly in emerging markets, is also important to develop and implement new roadmaps that define ICT use as a tool for clean business and economic growth. The use of ICT may also be able to provide market-based advantages to adopt practices that reduce greenhouse gas (GHG) and promote "green" innovations.

My involvement in the above proceedings demonstrates the growing importance that the ICT industry and its business executives hold for future participation in such multistakeholder dialogues. The main IGF themes of critical Internet resources, access, openness, security and diversity are issues now facing business firms when they consider whether to expend financial, human and technological resources in the development and deployment of ICTs. In the future, industry leaders will continue to promote the innovation and development of services, applications, content, devices and networks to address these issues and other rising challenges facing ICT and the Internet.

## **Reflections on the Internet Governance Forum from 2006-8 - Anriette Esterhuysen**

The Tunis agenda provided the IGF with a broad mandate which could have been exercised in many different ways, with varying degrees of formality and originality. The IGF secretariat, the multi-stakeholder advisory group (MAG) and the first two host countries made a number of critical choices about style, content, programme and nature of the forum. On balance, we believe their choices were successful. The first two forums exceeded the expectations of most of those who took part and left them with a desire to stay involved.

### **The First Two IGFs**

#### **The Athens IGF**

By the end of the meeting, held in Athens in November 2006, very few participants were talking of it with the kind of cynicism that had been so prevalent in WSIS. Almost everyone present seemed to feel that they had gained personally from the forum - in understanding, in networking, in ideas. This was true across the stakeholder spectrum and was a major achievement for the IGF and its organisers. Developing country participation was not strong enough, and turning this around was identified as a goal for the next forum.

The first IGF had less impact on the outside world than on 'insiders'. It was not particularly widely reported in the media, and much of the reporting that did occur saw it as a continuation of the WSIS debate about "who runs the internet", rather than as the much more broadly focused event that actually took place. However, as WSIS demonstrated, improving understanding of internet issues is a long-term and continuous process, not something that can be achieved overnight. The first IGF contributed here, and future forums can do even more.

#### **The Rio de Janeiro IGF**

The topics, organizations and people involved in organizing the workshops on the five broad themes chosen for 2007 as well as the best practice forums showed a very interesting picture of the IGF as a space for policy dialogue.

Participation was more diverse and it is worth noting the significantly increased presence of the African internet community. This was clearly the result of the preparatory work they engaged in the year before the November 2007 IGF proving the value of relating to the IGF as a process that consists of much more than just an annual event.

Every current policy issue that one can think of was covered across the 75 sub-events. Some of the workshops did not only raise questions but presented answers. Others sharpened participants' understanding of the complexities of the policy issue involved for which there are no simple solutions.

That one can see a comprehensive spectrum of policy issues, including the controversial issue of 'critical internet resources', being engaged is an organic

development which bodes very well for the quality of policy dialogue that the IGF can produce. It is also a sign of the serious commitment stakeholders are making to the success of the IGF as a space for policy dialogue, whatever the extent or nature of policy differences between them. There was a marked increase in participation from governments and parliamentarians, compared to Athens. Having a developing country government as host, particularly one that plays a leading role in its region, made an enormous difference in attracting the participation of its peers. This is significant. There is not much point in having policy dialogue without policy-makers being present.

However, adhering to the multi-stakeholder participation principle in organising sub-events is complex and should not be underestimated. Collectively negotiating such a comprehensive programme that attempts to include every important issue inevitably results in some issues 'disappearing' from the agenda and some actors being excluded from the process. This was demonstrated for example, by the lack of priority given to the right to privacy in the treatment of the security theme.

But in general the Rio meeting, like its predecessor in Athens, succeeded as a non-threatening space for policy dialogue that allows participants from different stakeholder groups with different priorities to not only reach common understanding of internet governance issues, but to also have a clearer understanding of divergences in views. In this way the IGF can exercise soft power over internet policy issues on the basis that debate can create better and more sophisticated understanding which in turn can indirectly influence the way in which institutions responsible for internet governance make decisions.

## The IGF as an innovative space for global policy dialogue

### Whose culture?

To be successful, the IGF needed to draw on two cultures - the formal culture of the UN system and the informal culture of the internet. Only by balancing these two cultures could the IGF attract the support and participation - as importantly, the positive participation - of the necessary range of participants.

In practice, the IGF adopted more of the internet community's informality than of the UN system's formalism. The relatively informal and egalitarian character of the IGF felt appropriate and should be maintained in the future.

### Participation

The first two IGFs were held under UN auspices, but were most unlike a UN meeting. In other UN forums (including WSIS), participants are continually reminded of their status within the meeting - as insiders (government delegates or representatives of IGOs) or outsiders (private sector and civil society). There was no discrimination between participants according to status or stakeholder group in the first two IGFs. Not only were there no arguments about who was entitled to speak from the floor where or when, it was clear that participants - from all stakeholder groups - would have regarded any such arguments as both improper and illegitimate.

This contributed to a much more open environment for dialogue and learning. Participants were listened to on their merits, because of the quality of what they had to say rather than whom they represented. In turn, they had to listen to what others were saying, rather than making assumptions based on who they were and/or relying on their

own delegation's previously-adopted decisions to decide their point of view. Those who merely came to listen, rather than to speak, learned far more than they would otherwise have done from the openness of discussion that resulted and the priority this placed on quality of knowledge, thought and engagement with ongoing debate.

The Rio IGF maintained the practice of inclusiveness, but, colour coding on participants' name tags did indicate whether they were from business, civil society, or government. This struck a note of dissonance to many who were at the Athens forum; nevertheless, it did not appear to undermine the extent and quality of participation.

It is interesting to note that the arguments about multi-stakeholder participation in WSIS were essentially about the representation of groups (the private sector, civil society), whereas the implementation of multi-stakeholder participation in the IGF was achieved essentially by giving individuals, not groups, equal status. The one exception to this was in the organisation of workshops where it was a requirement that speakers were drawn from different stakeholder groups. This emphasis on the equality of individuals irrespective of origin was much more successful in encouraging debate and dialogue than the alternative, of entrenching different stakeholder positions within the structure of the forum, would have been. It should be continued into the future

This otherwise excellent level of participation at the Athens forum was marred by three factors: firstly, the lack of gender balance in terms of participation and content, secondly, the lack of financial support for the many key stakeholders who do not have the resources needed to be there, and, thirdly, the lack of developing country participation.

The Rio forum was somewhat more successful in addressing the latter two factors, and various steps have been taken to increase financing available to participants from developing countries in the run-up to the IGF in Hyderabad. The increase in developing country participation in the Rio IGF was particularly noticeable, with 29% of the participants coming from the host country (Brazil). Gender balance was poor. Women's participation in the IGF, 30% Athens and 31% in Rio was not reflected in the composition of plenary and workshop panels.

The challenge to ensure diversity remains, and needs to be addressed. The current system of only selecting speakers from among people who are able to pay their own way to a forum, or who manage to get there through institutional backing, is bound to result in serious gaps in the diversity and knowledge and experience represented on the panels.

Facilitating remote participation has been a significant achievement of the IGF. It is difficult to evaluate how meaningful it is; not many remote participants get to 'speak'. Most probably its value will only be recognised if it were to stop being available. There is an interesting un-intended consequence of the live transcripts. They make it so much easier for non-English speakers to follow proceedings. At both IGFs we have noticed that many participants opt for reading the transcripts over listening to the interpreters.

## Content

There was much discussion at and after WSIS about whether the IGF should cover a broad range of issues in its first meeting or focus on a narrow range of issues requiring concerted action. There could have been advantages in either approach. In practice, the IGF chose to work on a broad canvas, and we believe this judgement to have been validated by experience. A narrow subject range would have reduced the numbers participating and increased the risk of polarisation within the forum. That would more

likely have undermined than helped establish it for the future.

A broad subject range - one which really made the Forum one on "Internet Issues" or "Internet Policy" rather than "Internet Governance" - gave it the potential scope to encourage participation at varying levels of expertise and the right balance between internet-specific issues and those which concern intersections between the internet and other areas of social, economic and political debate/governance. However, articulating these intersections remains a challenge for the IGF community.

Once area is of intersection which is particularly challenging is gender and internet governance.

## Discourse

Thus far the quality of discourse at the IGF has been significantly higher than in most comparable international events. This is an achievement that cannot be underestimated. By "discourse", here, is not meant technical sophistication - though there was plenty of that, and more, certainly, than in WSIS preparatory meetings - but the quality and sophistication of thought, of debate, and of linkages made between issues. Three points are worth making:

- Firstly, there was less posturing and position-taking than in other international forums. As one inter-governmental organisation representative put it privately to an APC delegate at the Athens IGF, "no-one is talking in code." People said what they thought and argued their case.
- Secondly, people were prepared to listen to one another and to learn from others' experience. Many people felt at the end that they left the forum knowing more than when they arrived - knowing more, that is, about the issues *and*, most importantly, knowing more about others' perspectives and why they hold them. This is not a common feeling at the end of international meetings, and it is one of the great virtues of multi-stakeholder engagement.
- Thirdly, those who sought to get the IGF to adopt firm positions - to make policy choices that were outside its remit - got short shrift. Participants understood that the value of the IGF did not lie in seeking to exceed its authority, but in building an informed and inclusive community of people engaged with Internet issues. This is what could establish the forum's credibility for the future.

Above all, the quality of the discourse can be attributed to the fact that there was no final communiqué at the end of the first two forums whose text had to be argued over word by word. Some have questioned the value of the IGF because it lacks decision-making powers. Experience of the first two meetings suggests that, in fact, its greatest value may lie in this very lack of decision-making powers – for it is this that enables it to provide an environment in which people can share experiences and ideas, learn about issues with which they are less familiar, gain understanding of each others' perspectives and explore partnerships with those outside the comfort zone of their own ideological or professional communities.

Whilst recognising that the general quality of discussion and approaches to discourse were higher than in other comparable foray, the IGF must be a place where

stakeholders can be transparently open and honest about controversial issues. Critical Internet Resources (CIR) was the 'elephant in the room' in Athens. A high level of wariness pervaded the last open consultation in Geneva prior to the Rio forum as participants waited to see whether CIR would make it onto the IGF agenda or not. It did, which was the right decision. But actual discussion of CIR in Rio was disappointing. On the one hand there was the predictable posturing by and between vested interests; reminiscent of the WSIS and a marked counterpoint to the refreshing lack of such behaviour in relation to most other issues. On the other hand, most workshops that addressed the issue appeared to preach to the converted. There were no noticeable forward-looking shifts in the debate and dialogue on the issue.

Another area of concern is the decreasing emphasis on rights issues. This trend unfortunately seems to continue in the build-up to the Hyderabad IGF. If this is an indicator of decreasing the emphasis on fundamental rights in internet governance, it could undermine the legitimacy of the IGF in the longer term.

## Challenges and recommendations

### The Mandate of the IGF

During the consultations leading up to the Rio forum APC raised a concern that the proposed programme and schedule did not fully deal with the specific requirements of paragraph 72 of the Tunis Agenda which lays out the IGF's mandate<sup>25</sup>

As an organisation concerned with the issue of access, APC raised the question of how the text in paragraph 72 (e) which says that, "The IGF should advise all stakeholders in proposing ways and means to accelerate the availability and affordability of the Internet in the developing world" could be put into practice. The function of providing advice goes beyond convening policy debate. APC argued that there should also be some attempt to move beyond dialogue, towards the requirement in the IGF mandate to produce advice on how stakeholders can make a difference in a global context in which five billion people do not have access to the internet.

APC continues to believe that the IGF is one of the most significant and innovative public policy spaces to emerge in the new millennium. However, if it is to grow its legitimacy and continue to be innovative it needs to be able to consistently create spaces for addressing controversial issues and find ways to ensure that some effective follow-up on issues discussed at the IGF that are of common concern, and that require further exploration and intervention, take place.

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<sup>25</sup> <http://www.intgovforum.org/mandate.htm>

## More dialogue, More Consultation - Qiheng Hu

### The Internet in China

In the daily life of plain Chinese people now has emerged completely new element, one single click and there is the whole world beside you. There you can find anything you want to know. The Internet is increasingly becoming the indispensable partner for more and more Chinese people. Lately, during the extraordinarily big disaster of Wenchuan earthquake, thousands of people found their separated folks with the help of the Internet. According to the latest statistics, there are over 234 millions Internet users in China until July 2008, accounts for 16% of the population. This number is reasonably expected to grow fast, particularly in view of the fact that there are more than 500 millions mobile phone users in China.

The progress is so fast and an interesting situation can be observed that in the past a few years the titles of the strategic plans of development in many countries have changed early or lately from "e-" into "u-", stressing on the expected future that the electronic environment is becoming ubiquitous. It is very true that the Internet is growing to be not only a cyber-world separated from the real one but rather the "cloud", even the atmosphere directly surrounding us and pervading through our life. In the near future anyone will not be able to live and work without assisted by the Internet.

It is interesting that in a survey for Chinese Internet users there is no one considers that the Second Life is virtual, most of the answers are "it is combined of the real and cyber". The human society and the Internet seem to be interweaving into each other.

### WSIS and IGF

Look back to the WSIS of 2003 to 2005, it should be considered a historical event in the Internet development in the sense that it is the first global meeting in the framework of UN that discussed the issue of Internet governance in a comprehensive way and passed the Tunis Agenda where the multi-stakeholder participation in the process of the Internet governance is stated as a fundamental principle. It is the first breakthrough in the meaning that the sovereign states' governments were included among the Internet governance actors of the equal level with other stakeholders.

There is no need to list all the risks threatening the Internet security and the users' benefit, particularly when the Internet will be becoming ubiquitous, the sovereignties have to interfere at different levels of the Internet governance through the local policy, law, regulations and enforcement rather than to be merely advising to the governance. Of course, as political entities, the governments may unavoidably have their specific problems. A global Internet and the local regulations, between the two inevitably will arise many issues that sound not in full harmony. This problem cannot be solved by simply ignoring either side. To the contrary, more effort is needed to promote the contact, dialogue, exchange, consultation and cooperation in the scope of the global Internet governance arena.

The IGF, as a child of the WSIS, is a perspective platform for the seeking of an advancing of a global Internet harmonized with the localized sovereignties and policies accordingly. IGF as a forum for all stakeholder groups, is expected to create the best practice for focusing the attention from both global and local regulators to the most important controversial issues in the Internet governance.

Among many reasons why the IGF is needed, the existence of IGF provides a chance for the local sovereignty to have a stronger flesh and blood feeling about the global community for the Internet governance. To promote the mutual understanding, to strengthen the link between the local governors and the global community is the key for facilitating the consensus on the controversial issues.

## A Topic for IGF

During the past two IGF meetings the Internet Society of China has made efforts to raise the issue on the World Internet Norm in collaboration with many other NGO groups. Sequential workshops with the title "Global Culture for Cyber-Security" have organized in Athens and Brazil.

The idea is to raise the attention from all stakeholders and the public-policy makers to the issue of appealing the self-engagement for all Internet users. In addition to the law and jurisdiction enforcement the human society has the common ethical norm that provides a bottom line for the human behavior. The Internet is a global human society, unfortunately in this society there is a lack of neither the law and jurisdiction nor the ethical standard. Can you imagine a public place where everyone feels free to throw trash and dirt to the ground, even make it as the bedpan? There are too many cases which are out of the reach of law and regulations, but rather a problem of the user's individual behavior that is worsening the environment of the Internet, annoying other users even maddening other people, for example, to make evil-speaking or abusive remarks to comment other people's opinion, etc.

When we say that we are making a free, open, trusted and accessible for everyone Internet, by all appearances, we are talking about a network that is useful and enjoyable for people in their constructive to the society activity, rather than reversely, to assist people in their demolishing activities and being disastrous for the people accessing the network. The Internet should be a nice place to the dominate majority of its users. Unfortunately, there are too many unknown enemies, namely the traps, frauds, exposure of privacy, attacks, viruses and malicious software etc. awaiting you on the Internet.

Besides the law and its enforcement can we appeal for a common conscience of all Internet users to engage themselves to repel evil-speaking and peeping, to refuse any kind of activities that would damage the network environment, and to make a nice Internet for all of us? Can we appeal for the formation of global culture supportive for a save, secure, open, trusted and diversified Internet through the efforts of all Internet users of the world?

It is the core idea why the ISC has participated in the collaboration to make the workshop on the past two IGF meetings. The Workshops have discussed the structure and main frame of the "global culture for cyber-security", explored the possible different view points on what should be included into this global consensus, and what is not. There may be many important topics to be developed under this general idea.

To build this culture requires national action and increased international cooperation to strengthen security while enhancing the protection of customer information, privacy and individual data. Continued development of the culture supportive for the cyber-security would improve the broad access and trade and must take into account the difference in the level of social and economic development of each country and respect the development demands of the poorer regions. The global culture formation will be a result of full exchange of information and best practices, case studies etc. which could

be accompanying the IGF process. The global culture for cyber-security will call upon the experts from different fields to find ways and means for making Internet more affordable and accessible. The consensus on what is good and what is misuse of the Internet which will be and could only be developed during the process of the global culture formation will be the foundation for the solution of many issues emerged in the Internet application.

## More Possible Topics

To explore the direction of development and the possible solution for some difficult issues in the Internet governance by the exchange and discussion of case studies and the best practices would be a helpful way to go. For example, the online copyright battle has been a permanent head ache problem. Lately Baidu developed the collaboration with EMI on the online music. The two decided to share the ad revenue on the EMI music page within the Baidu website, given the EMI authenticating Baidu to use all EMI songs in Chinese language as the free test version for Baidu users. They seem are exploring further collaboration in this direction, namely a system of ad revenue sharing based on free download of the EMI music.

It sounds quite reasonable and simple. The success and application of this idea to more aspects concerning online copyright would make our life easier avoiding too many battles and cost accordingly in this field.

Based on the share of practices, the IGF may also serve as a bridge linking the stakeholders of different geographic regions with the same interests and engagements to form regional or even global allies for certain specified activities of the Internet governance. The spam IM through the mobile phone is a very serious challenge especially for the regions where mobile-phone IM is popular. To fight with it, the first place problem is how to define it. The ISC is trying to solve this problem by "reporting and pleading". If there is more than certain amount of reports of spam focused on one IM sender, the Center for spam fighting will warn the spam sender and the spam sender in turn has the right of pleading. In case you abandon to plead, and more complains to you is received, then the Center would signal to all the SPs who have engaged into this mobile phone fighting ally to block this spam sender.

The ISC has paid great efforts to the spam email combat and quite positive result has been achieved. According to Sophos, in the 3d quarter of 2007 the spam sent through China from the number 2 in the world decreased to number 3. Such kind of activities would be much more effective if we can make a regional collaboration.

## Suggestion

The IGF platform is valuable and more useful practice which could be undertaken on this platform is still to be discovered. It seems that the basic function of the current IGF is to let all stakeholder groups have the feeling that there is a place where they can easily access, participate, present, show, develop discussion and raise issue that is important for them to draw the attention of the global community of the Internet. Considering the clever saying that "the realizable is the reasonable", perhaps this is the reasonable mechanism for the Internet governance for today.

What will be after the 5 years life of this IGF mechanism? Should not be a vacancy. At least the IGF alike platform should exist for some period and should be improved in its function and the way it will be organized.

## **Broadcasters are On-track for Internet Services - Jean Reveillon and Richard Sambrook**

EBU, BBC

In September 2008, media mogul Michael Grade argued that "The only important thing in the media is the content. All the rest is just railway lines". Like all generalisations, this is false, but there are some grains of truth in it.

For the Internet, content has no value unless there are railway lines going to the places where you want to go. Content also has no value unless the Internet has wide enough tracks to take the carriages. But it is equally true that, of itself, Internet has no power to change society or anything else. Technology and Content are partnerships which together change the world, and help us to find our identity.

To understand how the partnership may act, we need to look at the larger picture. Both technology and content are evolving, and at the same time industrial structures are changing. Broadcasters today see themselves as, first and foremost, content providers. Furthermore, public service media see themselves as having a mission to make the world a better place to be. Public service believe they must be an integral part of the Internet society.

The greatest force for change in the media world today is the Internet. This is because the basic distribution infrastructure already exists, and so introducing new services is simple. This is different to services such as broadcasting to handhelds, Video on Demand, where new infrastructures – receivers and transmitters – are needed. Internet can provide new services 'out of the box'.

Furthermore, picture quality on the Internet is changing, and becoming more 'watchable' as broadband services become available. In short the Internet is changing from a 'text' medium to a 'video' medium.

Because of this, trends are emerging.

Today there are 800-1000 million people (of a world population of 6.5 billion) that use the web. Globally the web is not nearly as popular as TV or radio (more 4.5 billion) or mobile phones (about 3 billion), but it is growing.

One of the trends of the web is 'media concentration'. There are tens of millions of web site available, but statistically less than one hundred sites reach more than 93% of the worldwide audience. Less than ten reach more than 90%. The so-called 'long tail' of web sites is thin and getting longer and thinner.

The top nine companies worldwide are all based in North America – and they are big companies now. In reality the web is becoming dominated by media giants. With possible mergers, the top companies list may even shrink to five in the years ahead. There is now a saying that "every web user in the world is now working for Google".

Another important trend is that people are turning more and more to professional content from the Internet. This is even true of gateway sites like You Tube, where over time, companies like CBS, Universal Music, and NBC are dominating clip downloads, rather than the citizen-made content, though occasionally there are very popular citizen clips.

It seems that, mostly, the sites gaining viewers are those which have big budgets. Overall, the web may not be the great democratizer that we thought it would be. The web is a 'market economy', and will behave like one, not a social service. The web will be another means to provide viewers with content by professionals, not by citizens. We have to recognise the web for what it is – principally another means to distribute professional media, this time with worldwide competition.

The situation for European public service broadcasters on the Internet today is 'not bad' – though much remains to be done. . When we look at national broadcaster situation today in Europe, we find that over 90% have advanced web sites, and virtually all are in the top 100 web sites in their countries. Over 70% of European broadcasters do streaming of TV or radio programmes or on-demand. Over 60% of them Podcast radio and television. Furthermore over 80% assume that viewers have broadband connections with over 500kbit/s capacity.

And the tide is moving to 'free services'. Because of the Internet environment and the fierce competition for audiences, the public is growing to expect 'free services'. The public seems also to have no conscience about pirating music or video on the Internet. To succeed pay services will need to cost less than the cost of pirating them. Though not condoning piracy in any way, free to air broadcasters are well placed in this environment. The public service mission is to reach viewers and listeners, not to make large profits. The web is moving in a public service broadcaster direction.

The tide is moving to 'social objectives'. The web is following an evolutionary path. The path is towards greater contribution by the user – interactivity and content creation. The path is towards greater communities of users. This includes the sharing of video, pictures, and lives. These are social objective and not business objectives. Free to air public service broadcasters are well placed for this trend. The web here too is moving in a public service broadcaster friendly direction.

There is also confidence among broadcasters. About 70% of EBU Members believe broadband will be as important as, or more important than, broadcasting at some point in the future. The most common projected timescale for this is 2012-2015. This means that broadcasters need to become media providers for both broadcasting and Internet services.

So, in summary, on the one hand the web is becoming dominated by a handful of US companies - somehow we must do more to ensure pluralism. But on the other hand, in practice many directions for the Internet are 'friendly' to public services. There is a good chance that the trains from public service media will reach their destinations.

## **Convergence between the Information Society and the Low Carbon Economy: An Opportunity for Internet Governance Innovation? - Don MacLean**

In establishing the Internet Governance Forum, the World Summit on the Information Society gave it a mandate to “identify emerging issues, bring them to the attention of the relevant bodies and the general public, and, where appropriate, make recommendations”. This is a potentially powerful role for the IGF. The emerging issues section is the only part of the mandate statement that explicitly encourages the Forum to reach beyond the collection of individuals, groups and organizations involved in Internet governance, and to speak directly to the peoples of the world. It is also the only part of the mandate statement that directly invites the Forum to move beyond its roles of facilitating discussion and promoting dialogue, and to make recommendations to other bodies and the international community.

At its present stage of development, it is not surprising that the IGF’s potential role in these areas has not yet been realized or even fully explored. The first two IGF meetings included sessions on emerging issues. However, discussion at both events was wide-ranging, general, and inconclusive. This is not a criticism of Forum proceedings. The sessions on emerging issues at Athens and Rio were not intended to identify issues to be brought to the attention of relevant bodies and the general public, accompanied by appropriate recommendations. Clearly, it would have been premature to attempt anything of this kind at a time when the Forum was still finding its feet. The IGF process for identifying emerging issues, communicating their importance to the world at large, and developing recommendations remains to be invented.

The IGF mandate runs for five years, at which point the UN Secretary-General, after examining the desirability of continuing the Forum in consultation with its participants, will make recommendations to the UN membership in this regard. It is possible – perhaps even likely – that during the next three years the IGF will not have discharged this part of its mandate. If this proves to be the case, it will not be for lack of opportunity.

Important new issues related to Internet governance have emerged in the three years since the Forum was established – issues which in some cases have attracted public notice as well as the attention of bodies involved in Internet governance. Some of these issues, such as the transition from IPv4 to IPv6, concern the management of core Internet resources. Others, such as network neutrality, concern public Internet services provided by the information and communications technology (ICT), content and entertainment industries. Still others concern the role of the Internet and ICTs in relation to overarching global issues that rank high on the international policy agenda, and which are of broad concern to countries and peoples.

The role of the Internet and ICTs in relation to climate change and other environmental challenges is an example of this third kind of emerging issue. For the past decade, climate change has been one of the most important items on the international agenda. It is a subject that has become of direct concern to governments, the private sector, civil society, and ordinary citizens – as scientific consensus has developed around the causes of climate change and the steps that must be taken, both to mitigate its effects and adapt to its consequences – as regional, national, and local jurisdictions have begun to take measures to reduce greenhouse gas emissions, in the spirit if not always

according to the letter of the 1997 Kyoto Protocol – and as negotiations on the post-2012 global climate regime have intensified.

In the past five years, the ICT industry sector, ICT policy makers, and some parts of the sustainable development policy community have begun to pay serious attention to the relationship between the Internet, ICTs, climate change and other environmental issues. Much of this work has been undertaken within a conceptual framework that distinguishes between three orders of effects.

*Direct or first order effects – the materials used, the energy consumed, and the greenhouse gases emitted in the production, distribution, sale and support of ICT equipment, applications and services, as well as in the disposal of ICT waste at the end of product life cycles*

This is sometimes referred to as “the 2% problem” reflecting the ICT sector’s current share of greenhouse gas emissions – a share that is projected to increase dramatically in the next five years, principally because of increasing demand for Internet services. The challenges facing the ICT sector in relation to first order effects are relatively straightforward: to mitigate its direct effects on the environment by increasing the energy efficiency of its products and services throughout their life cycles; and to shift to renewable sources for its energy needs.

*Indirect or second order effects – the materials used, the energy consumed and the greenhouse gases emitted in the use of ICT equipment throughout the economy and society*

Although sometimes referred to as “the 98% problem”, the ICT sector sees the indirect effects of its products and services as a source of significant business opportunity, because of the role ICTs can play in improving the efficiency of energy, transportation and building infrastructures; managing the energy supplies generated by variable renewable sources, such as solar and wind; and reducing demand for materials and energy throughout the economy and society – through the “de-materialization” of products and services and the “virtualization” of organizational structures and work. The challenges facing the ICT sector in relation to second order effects are broad. They include issues of public and private policy associated with the convergence of ICT, energy, transportation and building infrastructures into “smart” systems, and with the general Internetworking of economic and social relationships.

*Systemic or third order effects – the role of ICTs in relation to the fundamental changes in economic and social structures, as well as in public attitudes, values, and behaviours, that will be needed to mitigate climate change and adapt to its consequences at environmentally sustainable levels*

This is largely unexplored territory that lies at the intersection of the Information Society and the Low Carbon Economy. Mapping this new world as it begins to emerge, and forecasting its future shape under different governance scenarios, are tasks that lie beyond the normal interests and capacities of the ICT sector. However, it is the kind of territory the sustainable development policy community regularly explores, using future forecasting and scenario building techniques as tools for policy research, analysis and communication. If thought leaders from the ICT sector were to see value in exploring the possible systemic. Long-term effects of ICTs in relation to climate change and other environmental issues, it would make sense to join forces with their sustainable development counterparts.

As the December 2009 deadline approaches for concluding a new global climate

change regime, international bodies with Internet and ICT governance responsibilities have begun to launch initiatives aimed at aligning the products, applications and services provided by the ICT sector with the environmental, economic and social imperatives that are consequences of climate change. For example

in regard to first order effects, the ITU has declared its intention to lead a global effort open to all interested parties to develop energy efficiency standards for ICTs, as well as methodologies for measuring their environmental impacts;

in regard to second order effects, the June 2008 OECD Ministerial Conference on the Future of the Internet Economy established a program to research the impacts of the Internet and other ICTs in addressing climate change and improving energy efficiency.

Although the ITU and the OECD are intergovernmental organizations, these initiatives will be undertaken on a multi-stakeholder basis according to the processes and procedures normally used by these organizations. While their approaches to multi-stakeholder governance differ significantly from those of the IGF, they are effective in producing recommendations that have immediate practical impact (particularly in the case of the ITU) and in bringing emerging issues to the attention of other bodies and the general public (particularly in the case of the OECD).

Is there a need, in the remainder of its present mandate, for the IGF to examine emerging issues raised by the role of the Internet in relation to climate change and the environmental, economic and social issues associated with it?

In one sense, this question has already been answered in the affirmative by the number of proposals submitted to the Hyderabad preparatory process for workshops, dynamic coalitions, and main sessions related to this theme. At the very least, activities of this kind will keep IGF participants in touch with actions undertaken by the private sector, civil society, and other international organizations with the aim of minimizing the direct impact of the Internet and other ICTs on the environment, maximizing the indirect benefits from their application and use throughout the economy and society, facilitating global adaptation to the consequences of climate change, and enabling the systemic changes that will be needed to reduce greenhouse gas emissions to sustainable levels and make the transition to a low carbon economy.

A monitoring function of this kind would provide the IGF with a basis for assessing the implications of decisions taken by other bodies with respect to ICTs and the environment for many of the themes and issues on the IGF agenda, including: technical standards; management of core Internet resources; development of innovative network architectures and services; the role of Internet users in generating content; protection of consumer and citizen rights; extension of Internet access, and promotion of Internet-based development opportunities. All of these issue areas will likely be impacted by the economic and social changes needed to mitigate climate change and adapt to its consequences.

While clearly of value, this monitoring and assessment function would not help answer the question of whether the IGF can meet the test implicit in the emerging issues section of its mandate – the test of whether the IGF can move beyond its basic roles of facilitating discussion and promoting dialogue to a different level, where its role would be to use its unique approach to multi-stakeholder governance to achieve consensus on significant emerging issues, and to communicate their importance to the world at large through recommendations where appropriate.

This is a standard that other organizations involved in Internet governance regularly

meet, using multi-stakeholder processes tailored to their purposes. The coming convergence between the Information Society and the Low Carbon Economy gives the IGF the opportunity to do the same.

By joining forces with thought leaders from the sustainable development community to focus attention how Internet governance can help enable the systemic, long-term economic and social changes needed to mitigate climate change and adapt to its consequences, the IGF would have an opportunity to explore new territory.

It would also have an opportunity to explore this territory in new ways – by working across sectoral boundaries to draw on the combined expertise and experience of the Internet, ICT and sustainable development communities, with the aim of co-inventing an open, bottom-up, networked approach to governance, modeled on Internet principles, incorporating basic governance rights and freedoms, and designed to be applicable to a wide range of governance challenges.

As in any venture into unexplored territory, there would be risks attached to this kind of project. However, since the global policy environment in which Internet governance takes place is likely to be significantly affected for the next several decades by concerns about the consequences of climate change, there are also risks in assuming that nothing will change fundamentally in the domain of Internet governance as a result of these concerns, or that dealing with the economic and social consequences of climate change is better left to other organizations.

In the past two decades the Internet has developed an increasingly symbiotic relationship with economic and social life. In the next two decades, this relationship will be extended through the Internet of Things to include both natural and artificial components of the physical environment. As this happens, the Internet will be used to reshape the relationship between the economy, society and environment. At the same time, the Internet will be reshaped through its relationship with them. Beginning the process of understanding how these relationships are likely to evolve under different governance scenarios is an important challenge for governments, the private sector and civil society. Is it also an opportunity for the IGF?

# The Scope of Internet Governance - Vinton G. Cerf

## Introduction

The Internet has now existed for 25 years, reckoning from its roll out on January 1, 1983. Of course, ten years of work on the TCP/IP protocols preceded that, and exploration of the packet switching technology and networks on which the Internet is based started in the early 1960s. As 2008 comes to a close, the Internet has become a major, global infrastructure on which a remarkable range of applications is supported. That these applications are becoming increasingly important economically, socially, scientifically and politically is not in debate. The governance of this global infrastructure has been a topic of discussion and debate, sometimes contentious but always interesting, nearly from the beginning.

The range of interested stakeholders in the governance of the Internet seems to include every person on the planet, every government, and many businesses and institutions. In this brief essay, an attempt is made to characterize the interests, issues and perhaps even useful steps that can be taken that surround the topic of Internet governance. The term “governance” can be and often is interpreted in many different ways. In this essay, the term is deliberately intended to be broadly understood to include all the means by which the Internet is operated, the rules governing its provisioning and use, the ways in which its technology evolves, methods for enforcing local, national or international agreements regarding the Internet and the process by which governance practices are established. It is deliberately assumed that “governance” does not mean solely “the role of government in the governance of the Internet.”

The Internet has always been a dynamically evolving system but the year 2008 marks a time of significance in its history. Technical changes to the fundamental features of the Internet are underway and these predictably will raise governance issues. The new, expanded Internet Protocol (IP Version 6 or IPv6) is actively being introduced. The Regional Internet Registries are exploring the use of digital signatures to validate the assignment of address space to parties authorized to advertise their assigned addresses. The Domain Name System is absorbing non-Latin character domain names and is making use of digital signatures to protect its integrity. Vulnerabilities in the network and in the computers attached to it are being addressed in part through technical means. The technical implications of these changes are significant and have governance aspects worthy of analysis and discussion.

Adding to the richness of the conceptual space of governance are the wide ranging abuses of the Internet that are emerging, such as identity and credit card theft, denial of service attacks, injection and propagation of viruses, worms and Trojan Horses, various kinds of fraud, invasion of privacy, imposition of censorship, a wide range of illegal acts including the storage, transport and production of child pornography, copyright violations, and other socially unacceptable behaviors. These problems drive extensive debate about principles, methods and means to counteract these abuses.

Finally, there are the basic organizational structures of the many bodies that have a role to play in various aspects of Internet Governance. Debates about these structures and their composition contribute to the general dialog about the Internet and its role on the global stage. In what follows, specific technical matters and their policy implications will be examined and, where possible, recommendations will be suggested.

## Internet Address Space

Among the most significant of additions to the present Internet is IPv6. This protocol was standardized by the Internet Engineering Task Force around 1996 but has been very slow to emerge in the world wide Internet. Recent analysis of the rate of consumption of the dominant IPv4 (version 4) format suggests strongly that ICANN will have exhausted IPv4 address space that it assigns to the Regional Internet Registries (RIRs) by approximately mid-2010. The RIRs will likely exhaust this resource by mid-2011. It is this relatively short-term exhaustion that seems finally to have awakened many of the Internet operational players to the need to introduce IPv6 in parallel with the existing IPv4 system. The two protocols are not directly interoperable and the general notion is to run both in parallel until all systems have IPv6 capability at which point the IPv4 system becomes theoretically redundant. Of course, private use of IPv4 may well continue, especially in nets not connected to the public Internet or in private networks that use so-called private IP address space that is *not* globally unique. The widespread use of Network Address Translation in today's Internet almost guarantees that there will continue to be a good deal of IPv4 usage in networks that are attached to the Internet but which do not provide paths to the rest of the global Internet.

The exhaustion of fresh IPv4 address space will lead to after markets for address space and to potential fragmentation of the address space that, in turn, will lead to increased routing table size and processing demands of routing algorithms. It has already led to a certain amount of address hijacking in which address space is advertised that has not been officially assigned.

Operating IPv4 and IPv6 in parallel will place additional stress on the size of routing and forwarding tables in Internet routers. This will, in turn, increase pressure to maintain a hierarchical address assignment policy to limit routing table size and the amount of computing capacity and data transfer devoted to updating these tables periodically. Mobile operation and multi-homing for reliability will conflict with provider-based, hierarchical assignment. The size of the IPv6 address space, while solving the exhaustion of IPv4 address space, does not solve the problem of global routing in an increasingly large scale Internet. All of these tensions will lead to the need for serious research and development on large scale routing algorithms and network structure.

The need to support mobility and multi-homing will almost certainly lead to new protocol designs that segregate end point distinct end point and routing indicators.

Some of the address hijacking problems can be resolved by introducing a registration regime in which assignments can be validated through digitally signed table entries that can confirm which autonomous systems have the authority to announce specific address spaces. For such a regime to work, there will need to be global discipline in registration of address space assignment and transfer as well as diligence in checking routing updates for validity against authorized announcement privileges. During the end-game for IPv4 address space, the increased economic value of addresses will lead to (perhaps already has led to) a kind of black or gray market in address space selling. This phenomenon may actually accelerate the uptake of IPv6 address space, especially if the economics of upgrading to the use of this address space are more attractive than persisting in the use of IPv4 addresses.

Connectivity of the IPv6 "universe" is a major concern. When the Internet was being deployed, it had implicit "connectivity" because any new network joining had access to the global routing tables and everything was connected to everything else. A complex regime of peering and transit connection policies evolved in which parties made

economic decisions around the means by which they maintained full connectivity to the global Internet. As IPv6 is being introduced sporadically, there is no central, IPv6-connected core. Consequently, adopting IPv6 does not assure connectedness of the ensemble of IPv6-speaking portions of the Internet. While various forms of tunneling may be employed to achieve desired connectivity, the result is a brittle and fragile construct. Efforts will be needed to adopt liberal policies for IPv6 connectivity at least until a strongly IPv6-connected core emerges.

## Domain Name System

The Domain Name System (DNS) has been evolving at a rapid pace since 2000 when the first new top level domains were introduced and since 2003 the first, internationalized, non-Latin characters were allowed in second level (or lower) labels of domain names. As of 2008, we are poised to introduce internationalized domain names (IDNs) at the top level for both country code and generic top level domains. The introduction of a massive number of new allowed characters drawn from hundreds of scripts creates opportunities for many forms of confusion for Internet users. Domain names written in Chinese, for example, could have multiple representations that are interpreted by users as the meaning the same thing, but seen by the Domain Name System as distinct and different. Traditional and simplified Chinese characters contribute to this kind of ambiguity. Rules have been and are being developed to reduce the potential for this kind of problem. Similar issues arise with Latin, Greek and Cyrillic characters because many of them are identical in appearance but are encoded in the Unicode system as distinct.

Technical efforts are well underway in the Internet Engineering Task Force (IETF) to limit the set of characters that are considered suitable for use in domain names, but these technical limitations will have to be augmented by additional restrictions applied by domain name registries and domain name server operators at lower levels to reduce the potential for ambiguous domain names. Such policies have been developed, for example, by users of Chinese, Korean and Japanese characters and users of other characters are developing counterparts. The expanded set of domain names will assuredly lead to a variety of new opportunities for deliberate fraud or simple user confusion, while at the same time improving the experience of Internet users whose native languages are not conveniently expressed using the limited Latin characters A-Z, 0-9 and the hyphen and encoded in the American Standard Code for Information Interchange (ASCII).

The important policy point arising from the introduction of internationalized domain names is that restrictions on use will have to be implemented not only through protocol constraints but also by policy at registration time. The Chinese, Japanese and Korean communities have concluded to bundle together certain registrations so that a domain name that is registered will also implicitly register a set of additional names or at least prohibit registration of other names in the bundle implicitly defined by the registered domain name. Other restrictions may prove necessary to reduce abusive or ambiguous registrations for other character sets and associated languages.

There will be strong need for cooperation among parties who share a common or overlapping use of scripts. Many languages are expressible in the Arabic script, for example Arabic, Farsi and Urdu. There will be value in coordinating registration rules to reduce the risk of ambiguous domain name registration and use. Use of characters from different scripts in a single label may also be strongly discouraged to avoid the kind of visual ambiguity found among Greek, Latin and Cyrillic characters, for example.

The addition of new top level domains will exacerbate concerns among trademark holders for the need to register or somehow protect trademarks in all top level domains. There is tension between this concern and the understandable desire to increase user choice of top level domains. There is risk, however, in the unconstrained expansion of top level domains because the processes governing top level domain authorization are much more complex and cumbersome than those governing second level or lower level registration. A root zone file containing hundreds of thousands of entries would not be manageable under the present domain name management regime. A factor of ten increase from hundreds to a few thousand top level domains, however, maybe be feasible. The oversight and enforcement functions exercised by ICANN may be expandable to that scale but not without significant stresses.

An additional policy problem may emerge with the use of IDNs because they are encoded for use in the Domain Name System servers in the form of strings that take the form of valid lower case ASCII alphanumeric strings prefixed by “xn—”. This prefix signals that the original IDN was expressed in Unicode form and encoded using a reversible algorithm called “punycode” so that the original Unicode form can be recovered. Domain names in this punycode form may be presented to users because browser software makers may try to protect users against confusion by presenting the alphameric punycoded version of the domain name rather than its Unicode script form. This could lead to deliberate registrations whose punycode form displays a trademarked term or deliberate attempts to register punycode-like strings such as “xm—cocacola” to mislead users. Registration time limitations and protocol restrictions will be needed to curb such abuses.

Recent attacks against the Domain Name System exploiting a vulnerability of many implementations have increased attention on the use of the Domain Name System Security standard, DNSSEC. In essence, under this system, domain names in a given zone would be digitally signed so that the response to the look up of the IP address associated with the domain name could be validated using a digital signature provided by the zone manager. In the case of top level domains, the TLD operator would provide such signatures. The idea is to assure that the integrity of information associated with a domain name can be validated at look up time. The notion can work at all levels of the Domain Name System including the root zone. While introduction of DNSSEC does not solve all potential vulnerabilities, it would be an important step toward increased integrity of the DNS.

The signing of the root zone has been a matter of discussion and some controversy. The current management of the root zone involves ICANN, VeriSign and the US Department of Commerce. A straightforward way to implement the signing of the root zone is for ICANN to accumulate root zone changes as it does now, assemble the zone file and sign it, have the signed object validated by the Department of Commerce and to transport the signed root zone to VeriSign for propagation into the Internet. This sequence introduces minimal change in the current process but allows the contents of the root zone to be strongly validated on look up.

The current DNS is supported by twelve organizations operating thirteen distinct Root Servers. Many of the Root Server operators are using the “anycast” function of the Internet global routing system to replicate servers around the Internet so that there are many more root servers than operators, increasing the resilience of the root zone service. The introduction of DNSSEC and the introduction of IPv6 as led to the introduction of an extension of the DNS system called EDNS0 that would theoretically allow for more than 13 root server operators. The limitation to 13 is part of the ancient history of the IPv4 design but it is not useful to review this aspect in detail in this essay.

An important policy issue arises if the limitation of 13 root server operators is lifted: on what basis should additional root server operators be selected and where should the servers be placed? The latter is easier to answer since placement in locations of high connectivity will benefit the maximum number of users. The use of anycast allows regions of lower connectivity to access root zone information even when global connectivity is at risk. Selecting who should serve as a root operator is a much more complex question that remains largely unanswered. The community of root server operators today stems from the voluntary nature of the early Internet. Even within the limited set of 13 root servers it is not clear how a replacement operator would be chosen should one cease to be able to function for any reason. This is a policy area that deserves attention.

## Viruses, Worms, Trojan Horses and Badware in General

The World Wide Web (WWW) has produced a cornucopia of new applications in the Internet, built atop the flexible HTTP, HTML and XML protocols. The incorporation of interpretable, executable programs in the WWW context, such as JavaScript or Java code or Python, has created remarkable richness and also substantial risk. So-called "Badware" that can capture control of a computer is increasingly common. Just going to a web page can create an "infection" because browsers work by downloading the files associated with the web page and then interpreting the contents, including the execution of downloaded high level programs.

Browser software is remarkably complex and also remarkably tolerant of executing software whose functionality is not known ahead of time. The openness of the browsers and the operating systems on which they run have led to an increasing percentage of computers on the Internet that are infected with viruses, worms or Trojan Horses. Such machines are often controllable by the infecting party who creates so-called "botnet armies" of "zombies" that can be commanded to send spam email, to launch denial of service attacks or carry out other cyber-offensives under the control of the botnet general. These armies are rented out by their controllers. At one time it was thought that the agents creating these botnets were determined to destroy the Internet but now it seems that they are much more interested in keeping the Internet running because their armies are producing substantial revenue. The scale of the infected population of machines is impressive. Estimates in excess of 200 million infected machines (out of about a billion devices on the Internet) have been made.

Steps are needed to increase the defenses of the browsers against the ingestion and execution of bad software. Operating systems may need to be augmented to limit the damage that any executing program can do to other programs or the operating system itself. There is clear opportunity for serious research and development at many levels to cope with this serious risk. Absent an adequate response, the utility and richness of the Internet may fade as users conclude that it is not safe to use it for anything important (health care, financial transactions, personal information, etc).

## National Policies in a Global Internet

The Internet was designed to be largely insensitive to national boundaries. The IP address structure is *not* oriented around countries, unlike the telephone system. It was designed to support connectivity among all the computers on all the networks that make up the Internet. As the Internet has evolved, the need to limit access to specific resources on the net has arisen. Enterprises on the Internet have found it necessary to protect their internal resources through the use of firewalls, cryptography, virtual

networking and other methods. Mappings of Internet addresses to likely country of location have been developed for a variety of reasons.

Law and customs vary from one country to another and what is acceptable behavior in one place may not be acceptable elsewhere. To the extent that anyone can reach many computers on the Internet and obtain or deliver information through them, there is an understandable possibility for actions taken in one legal regime to affect Internet users in a different regime. Content that is legal in one country may be illegal in another. Fraud committed by a party in country A may affect a party in country B. The global nature of the Internet poses a significant challenge for national policy makers.

Of course, this is not new. International interactions or their equivalent in the distant past have always been a part of civilization. The question in the Internet context is how to accommodate national differences in policy in a global context. For example, personal privacy may have varying interpretations from one regime to another. While it is likely too much to assume that a global definition of privacy can be crafted, it might be possible to establish a minimum set of privacy guidelines that can be agreed on a multilateral basis. The legal significance of a digital signature and the process by which digital public key certificates are issued might be another area ripe for consideration. Multilateral agreements for the prosecution or enforcement of commonly agreed abuses, such as the production, possession or distribution of child pornography are also reasonable targets.

It is in the area of globally agreed legal frameworks that the Internet Governance Forum (IGF) can contribute to useful dialog. That the IGF is organized around a multi-stakeholder model is significant. Internet policy affects and is of interest to a very rich mix of stakeholders. It is in the context of these multi-stakeholder discussions that useful and commonly agreeable policies may emerge. Each stakeholder community has a role to play in the overall governance of the Internet. The technical community has responsibility for developing and adopting voluntary standards that assure reliable operation of the Internet. The infrastructure providers (Internet Service Providers, Domain Name registries and registrars, Root Server Operators, Regional Internet address Registries) necessarily must coordinate their policies to create as uniform an Internet as possible. Governments have the critical responsibility to protect public interest and must seek to do so on a globally coordinated basis, at least insofar as the Internet is concerned. The providers of applications on the Internet have an interest in a stable and growing infrastructure and a business environment that is conducive to global operation and friendly to competitive opportunity. The users of the Internet have an interest in the free flow of information and maximum choice of means to access to the Internet. They are equally interested in the protection of privacy, and safety in their use of the Internet.

## Conclusion

That the scope of Internet governance is extraordinarily broad and complex can hardly be disputed. The utility of common agreements on Internet policy can hardly be overestimated. Agreements that lead to a more reliable, stable, expandable Internet in which online commerce can thrive, information exchange can flourish and Internauts can feel safe and secure in their use of this global resource are surely desirable and must be a primary focus of the Internet Governance Forum and its constituents.

## The Preparatory Process

### The Preparatory Process

### The IGF Process - Chengetai Masango

#### Introduction

The second phase of the World Summit on the Information Society (WSIS), held in Tunis, on 16–17 November 2005, requested the Secretary-General of the United Nations to convene “a new forum for a multi-stakeholder dialogue<sup>26</sup>” – the Internet Governance Forum (IGF).

The mandate of the IGF, set out in Paragraph 72 of the *Tunis Agenda for the Information Society*<sup>27</sup>, is to discuss the main public policy issues related to Internet governance in order to foster the Internet’s sustainability, robustness, security, stability and development. The Secretariat is hosted by the United Nations Office at Geneva.

In Tunis, the Government of Greece offered to host the first meeting of the IGF in Greece in 2006. Subsequently, the Governments of Brazil, India and Egypt offered to host the IGF meetings in 2007, 2008 and 2009 respectively. The 2006 meeting took place in Athens, the 2007 meeting in Rio de Janeiro and the 2008 meeting will take place Hyderabad.

#### Convening the IGF

Due to its unique nature, there was no ready template to copy for the convening of the IGF. Therefore, to fulfil the mandate that was given to him, the UN Secretary-General asked his Special Adviser for WSIS, Mr. Nitin Desai, to start broad-based consultations on this mandate<sup>28</sup> with the aim to develop a common understanding among all stakeholders on the nature and character of the IGF. These stakeholders are defined in the Tunis Agenda for the Information Society as being governments, intergovernmental organizations, international organizations, the private sector and civil society, including the academic and technical communities.<sup>29</sup> The Secretary-General extended the mandate of the Secretariat of the Working Group on Internet Governance<sup>30</sup> (WGIG) to provide support for this consultative process on a provisional basis. The mandate was confirmed on 2 March 2006<sup>31</sup> and the Secretary-General appointed Mr. Markus Kummer as the Executive Coordinator<sup>32</sup>. A Web site was set up<sup>33</sup> to facilitate communication between the Secretariat and stakeholders. All stakeholders were invited to submit written contributions as inputs, which would in turn be posted on the Web site to encourage an exchange of views. A questionnaire soliciting ideas on the IGF was

<sup>26</sup> <http://www.un.org/News/Press/docs/2006/sga1006.doc.htm>

<sup>27</sup> *The Tunis Agenda for the Information Society*, available at: <http://www.itu.int/wsis>

<sup>28</sup> Implementation of and follow-up to the outcomes of the World Summit on the Information Society

<http://www.un.org/docs/ecosoc/meetings/2006/cs2006/SG%20report%20on%20WSIS.15June.pdf>

<sup>29</sup> *See id.*, . . . 29-35.

<sup>30</sup> The setting-up of the WGIG was one of the outcomes of the first phase of the WSIS. Its terms of reference are set out in the Geneva Declaration of Principles, WSIS-03/GENEVA/DOC/0004, available at <http://www.itu.int/wsis/docs/geneva/official/dop.html>.

<sup>31</sup> <http://www.un.org/apps/sg/sgstats.asp?nid=1942>

<sup>32</sup> The Secretariat is hosted by the United Nations Office at Geneva. It operates under the umbrella of the United Nations Department for Economic and Social Affairs (UNDESA) in New York which also provides its administrative support. The IGF Secretariat is funded through extra-budgetary contributions.

<sup>33</sup> Internet Governance Forum, <http://www.intgovforum.org>.

posted on the Web site to stimulate and provide an open framework for discussion<sup>34</sup>.

The Secretariat also developed a capacity building programme, in the form of a fellowship programme whose participants are chosen from developing countries, in particular least developed countries, to come and work at the Secretariat for periods up to three months. During their stay, they learn about Internet Governance issues and get to interact with stakeholders that come to the open consultations.

## Open Consultations

The first round of consultations, which was open to all stakeholders, was held on 16-17 February 2006. As part of the effort to widen participation, interested people could follow the proceedings virtually via a live webcast<sup>35</sup> and downloadable verbatim transcriptions<sup>36</sup> of the proceedings that were made available after each segment.

During the consultations there was a general feeling that the activities of the IGF should have an overall development orientation. It was equally recognized that capacity building for developing countries in Internet governance issues should be an overarching priority. Capacity building is understood as enabling meaningful participation by all in global Internet policy development, and includes assistances to attend meetings as well as training in Internet policy matters. The consultations also reaffirmed the WSIS Principles that the IGF meetings should be as open and inclusive as possible, with very light registration requirements. Furthermore, there was a common understanding that the IGF should be a continuous process with an annual meeting lasting for a duration of three to five days. A broad range of public policy issues were brought up, ranging from spam to freedom of expression.

Though, there was a broad consensus that the IGF should be as open and inclusive as possible, there was also a general feeling that there was the need for an additional body with closed membership to manage the process and prepare the meetings of the IGF. The views on which form this body should take diverged, with some arguing in favour of a multi-stakeholder management group that should be kept as small as possible (between 10 and 20 participants), and others arguing for a replication of the WSIS structure with three bureaux, one each for governments, private sector and civil society. The G77<sup>37</sup> asked for more time to reflect on this issue during the consultations and finally made known their preference for a WSIS-type construction with three different bureaux for governments and the other two stakeholder groups. The G77 proposal envisaged a total of 40 members for the three bureaux, with 20 government representatives and 10 each for private sector and civil society, based on equitable geographic balance. The G77 also emphasized the ad-hoc character of the advisory process that would be put into place to prepare the first meeting of the IGF.<sup>38</sup>

In the end a mixture of these proposals was adopted: an 'Advisory Group', which would advise the Secretary-General on convening the inaugural meeting of the IGF. It would comprise representatives of all stakeholder groups who would engage in dialogue together as equals (in line with the principles set out in WSIS). The representatives of the various stakeholder groups would be chosen based on the recommendations by

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<sup>34</sup> Questionnaire on the Convening of the Internet Governance Forum (IGF) : <http://questionnaire.htm>  
<sup>35</sup> Internet Governance Forum Webcast, [http://live.polito.it/mediateca/Internet\\_governance\\_forum](http://live.polito.it/mediateca/Internet_governance_forum).

<sup>36</sup> Internet Governance Forum, Meetings, <http://www.intgovforum.org/meeting.htm>.

<sup>37</sup> Group of 77 at the United Nations, <http://www.g77.org/doc>.

<sup>38</sup> Statement by HE Mr. Masood Khan (Pakistan) on behalf of the Islamic Republic of Pakistan, on behalf of the Group of 77 and China at the Consultations on the Establishment of the Internet Governance Forum, 17 February 2006, <http://intgovforum.org/contributions/IGF%20Statement%20by%20PR.pdf>.

their respective groups. A notice went up on the Web site inviting all stakeholders to submit recommendations for members of the Advisory Group to the IGF Secretariat by 18 April 2006. Letters were also sent to Permanent Missions of all UN member and observer states in Geneva, soliciting names for Advisory Group candidates. The proposals were grouped roughly based as follows:

- government representatives were proposed by the five regional WSIS groups;<sup>39</sup>
- private sector representatives were identified mainly (but not solely) by the main interlocutor for the business community: the International Chamber of Commerce/ Coordinating Committee of Business Interlocutors (ICC/CCBI);
- civil society representatives were proposed by various civil society groups (the Internet governance caucus, the media and various advocacy groups), reflecting the diversity of civil society;
- Internet community representatives were forwarded by the various Internet institutions such as ISOC, ICANN, NRO, CENTR etc.

These names were collected, collated and sent to the United Nations Secretary-General to select who was going to serve on his Advisory Group. Representatives of inter-governmental organizations (IGOs) were also invited to attend the meetings of the Advisory Group. On 17 May 2006, the Secretary-General announced the establishment of an Advisory Group<sup>40</sup> to assist him in convening the IGF. Mr. Desai was appointed Chairman of the group.

The regional and stakeholder group breakdown of the group was as follows:<sup>41</sup>

Regional Breakdown		Breakdown by Stakeholder Group	
Africa	8	Government	22
Asia	7	Business	6
Eastern Europe	5	Civil Society	7
LAC	7	Internet Community	10
WEOG	18	Media	1

This was considered to represent a reasonable balance. While some criticized apparent disparities in the make-up of the group, such as the heavy representation from the WEOG region, it should be noted that these could be attributed to historical reasons and the pattern of growth of the Internet and its related bodies.

The main task of the Advisory Group was to prepare the substantive agenda and programme for the first meeting of the IGF. All members served in their individual capacities and were not tied to their stakeholder group. To encourage openness and

<sup>39</sup> The WSIS regional groups are the same as on the UN level: Western European and Others Group (WEOG); Eastern European Group; Latin American and Caribbean Group (GRULAC); African Group and Asian Group.

<sup>40</sup> See UN Release SG/A/1006 PI/1717 of 17 May 2006.

<sup>41</sup> It must be noted that some Advisory Group Members belonged to several stakeholder groups and for the breakdown they are taken to belong to the primary group that proposed them. (It is noteworthy that several non-governmental representatives were proposed by governments.)

free expression the 'Chatham House Rule'<sup>42</sup> was applied to all meetings. The first meeting of the Advisory Group took place on 22-23 May 2006, following an open consultation on 19 May 2006. In addition to the Advisory Group its Chairman appointed five 'Special Advisors to the Chair'<sup>43</sup> to assist him.

## Second Open Consultations

The second round of consultations held on 19 May 2006 focused on the substantive preparation for the inaugural meeting of the IGF in Athens, Greece. The contributions received addressed a wide variety of public policy issues. The contributions further reinforced the consensus that the IGF needed to maintain an overall developmental and capacity building orientation.

From these consultations emerged a common understanding of how the IGF should operate and what issues it should address. The consultations endeavoured to create a conducive environment that allowed all stakeholders, including individual participants with proven expertise and experience, to take part on an equal footing. A general sense of the public policy priorities emerged with those concerning the use and abuse of the Internet such as spam and security taking the fore.

## Advisory Group Meetings

The first Advisory Group meeting took place immediately after the second open consultations on 22 - 23 May and the second took place on 7 - 8 September 2006. The meetings further distilled the inputs from the open consultations and came up with a set of recommendations for the agenda and programme outline;

The inaugural meeting would be based on four main themes:

- openness: freedom of expression, free flow of information, ideas and knowledge;
- security: creating trust and confidence through collaboration, particularly by protecting users from spam, phishing and viruses while protecting privacy;
- diversity: promoting multilingualism, including internationalized domain names (IDN) and local content;
- access: Internet connectivity policy and costs, dealing with the availability and affordability of the Internet including issues such as interconnection costs, interoperability and open standards.

It was also agreed that the Athens meeting would include workshops whose organizers adhered to the multi-stakeholder principle, were in line with one of the themes of the meeting and endeavoured to explore an issue from different angles and different stakeholders' perspectives. Pure advocacy workshops would not be considered. The workshops were also encouraged to be interactive with audience participation.

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<sup>42</sup> "When a meeting, or part thereof, is held under the Chatham House Rule, participants are free to use the information received, but neither the identity nor the affiliation of the speaker(s), nor that of any other participant, may be revealed" (Chatham House Rule, <http://www.chathamhouse.org.uk/index.php?id=14>).

<sup>43</sup> Internet Governance Forum, Advisory Group, Special Advisors to the Co-Chairs, [http://intgovforum.org/ADG\\_members\\_chairs\\_Adv.htm](http://intgovforum.org/ADG_members_chairs_Adv.htm).

A summary of each workshop would be read in the summing up session in the next day's main session, thereby becoming part of the meeting record. A total of 36 workshop proposals were submitted by the deadline on a wide range of topics such as multilingualism in the Internet to free expression.

## The First Internet Governance Forum in Athens

The inaugural IGF meeting took place in Athens from 30 October to 2 November 2006. The meeting was opened by the Greek Prime Minister Konstantinos **Karamanlis**, also participating were Internet pioneers such as Vint Cerf and Bob Khan.

Amnesty International on the final day of the Forum presented their "irrepressible" campaign, through which it, with the support of *The Observer*, presented the 'Internet as a new frontier in the struggle for human rights'.<sup>44</sup> Amnesty collected 50,000 signatures and handed over a pledge to Mr. Desai who accepted it on behalf of the Secretary-General.

One of the more notable outcomes of the Athens meeting was the formation of a number of so-called 'dynamic coalitions'. These coalitions are relatively informal groupings of stakeholders that are interested in collaborating on particular issue, by the end of 2007, there were fourteen 'dynamic coalitions' formed around such issues as stopping spam; creating an Internet bill of rights to access to knowledge<sup>45</sup>.

The Athens meeting was generally hailed as a success. One of its main achievements was bringing together stakeholders who would not normally meet under the same roof. It encouraged dialogue on issues of common interest among people who would not normally interact. On the whole, participants recognized that the meeting had been useful and had met some of its main objectives in so far as it contributed to developing a common understanding of the format of the IGF.

There were 1350 registered participants almost twice as many people taking part than were originally expected and planned for. 97 government delegations participated with 397 delegates. There was also a strong media interest with 152 media accreditations.<sup>46</sup>

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<sup>44</sup> Irrepressible.info – an Amnesty International campaign, <http://irrepressible.info> and BBC, Amnesty to target net repression, <http://news.bbc.co.uk/2/hi/technology/5020788.stm>.

<sup>45</sup> Dynamic Coalitions, [http://intgovforum.org/dynamic\\_coalitions.php](http://intgovforum.org/dynamic_coalitions.php).

<sup>46</sup> Note by the secretariat on activities undertaken by relevant United Nations entities in the implementation of WSIS, UN Doc. E/CN.16/2007/CRP.2 of 16 May 2007, [http://www.unctad.org/en/docs/ecn162007crp2\\_en.pdf](http://www.unctad.org/en/docs/ecn162007crp2_en.pdf), 25.

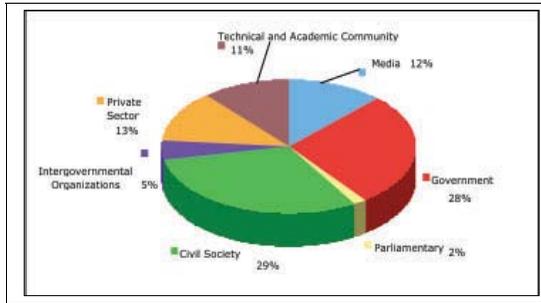


Figure 1: Participant breakdown by stakeholder group<sup>47</sup>

With 30 %, government and parliamentary representatives made up the largest stakeholder group, followed by civil society representatives with 29 % and then the private sector with 13 % of the total participants. This showed that there was broad interest among stakeholder groups. The gender split of the participants was 70/30 for men and women respectively.

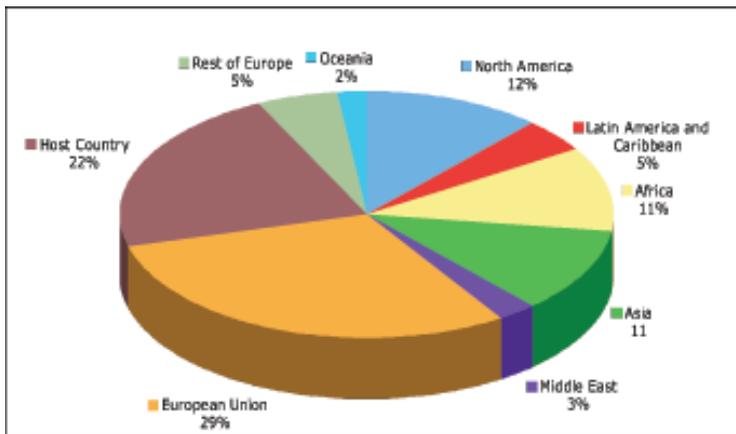


Figure 2: Participant breakdown of stakeholders by region<sup>48</sup>

The largest number of participants from each grouping came, not surprisingly, from within the European Union followed by North America with 12 %. Participants from developing countries were not as well represented with Asia and Africa accounting for approximately 11 % of participants each and Latin America and the Caribbean 5 %. While these figures showed a reasonable geographic distribution, concern was expressed about the low percentages for the Latin America and the Caribbean region. The most important outcome of Athens was that there was the general acceptance of

<sup>47</sup>

Based on registrations with the IGF Secretariat for the Athens meeting.

<sup>48</sup>

*Id.*

the format of a multi-stakeholder dialogue in which all partners participate as equals.

## Taking Stock after Athens

Following the inaugural meeting of the IGF in the Secretariat issued a call for contributions on the IGF website on 11 December 2006 with the aim to take stock of the Athens meeting and make suggestions with regard to the preparation of the meeting in Rio de Janeiro as part of the open and inclusive process.

The contributions received focused on topics such as the preparatory process and the logistics of the meeting as well as its format and content. Most contributions highlighted the innovative character of the IGF and the need for developing a preparatory process based on key principles of multi-stakeholder co-operation. It was recognized that creating a basis for multi-stakeholder discussion was a challenging goal. Furthermore, several contributors argued that the preparatory process was important in drawing on the expertise from other organizations and delineating a new area for work for the IGF, which did not duplicate or compete with the work of existing organizations. The open and inclusive nature of the preparatory process, with two rounds of consultations open to all stakeholders, and the use of the IGF website as a platform for exchanging views were generally well received.

The Advisory Group was commended for its work. The group was seen as having carefully developed its activities in such a way that they were not perceived to be taking on authoritative perspectives – a process that was consistent with the expectations set out in Tunis. Moreover, the Advisory Group was successful in focusing on processes and identifying additional resource persons and institutions, not taking on the role of developing positions themselves.

For some stakeholders, the transparency over the appointment and operation of the Advisory Group was inadequate.<sup>49</sup> Others argued that the IGF should move towards a decision-making body<sup>50</sup>. Some commentators, however, emphasized that the IGF should not of itself seek to change or expand its mission, which was the result of careful and lengthy negotiations within the WSIS.<sup>51</sup> They saw the role of the IGF as a platform for exchanging information and ideas and sharing best practices, in a true multi-stakeholder format. In their view, the success of the Athens meeting was intrinsically linked with the role of the IGF as a forum for dialogue and discussion without a view to developing consensus positions, formal resolutions or documents manifesting or resembling policy making. Central to the IGF's relevance and purpose was what is seen as the common understanding and agreement that it is not a decision-making body, that it is multi-stakeholder in nature and that it is a meeting of equals. These are described as the fundamental principles that underpin the IGF and have contributed to its uniqueness and its success to date. These commentators see its value in the productive and valuable discussions among people who might be able to take actions in other venues.<sup>52</sup>

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<sup>49</sup> Internet Governance Forum, Second Meeting, Rio de Janeiro, 12-15 November 2007, Synthesis Paper, [http://intgovforum.org/Rio\\_Meeting/IGF.SynthesisPaper.24.09.2007.rtf](http://intgovforum.org/Rio_Meeting/IGF.SynthesisPaper.24.09.2007.rtf).

<sup>50</sup> Intervention made by the Government of Brazil in the February 2007 open consultations, <http://intgovforum.org/contributions/IGF-1-0216.txt>.

<sup>51</sup> Letter to Mr. Kummer Executive Coordinator of the IGF from the Information Technology Association of America (ITAA), <http://www.intgovforum.org/ITAA%20IGF%20-%20Feb%202%202007.pdf>, at 1.

<sup>52</sup> Internet Governance Forum, *supra* note 21.

## The Second Internet Governance Forum in Rio de Janeiro

As a result of the stocktaking process, the Secretariat recommended to the Secretary-General to consider that the current Advisory Group be renewed for another year with the task of assisting him with the preparations of the IGF 2007 in Rio de Janeiro. It was also recommended that the Advisory Group be tasked with establishing a mechanism for their renewal according to the proposals of the stakeholder and to increase transparency.

The second meeting of the IGF was held from 12 to 15 November 2007 in Rio de Janeiro under the general theme of "Internet Governance for Development". The main sub-themes of the inaugural meeting of the IGF were carried through and the additional sub theme "critical Internet resources" was added. In the preparatory process a strong focus on children and young persons emerged. The meeting had seven main sessions. A total of 84 parallel events took place. Apart from 36 workshops, there were also several new elements such as 23 'Best Practice' forums where governments and other organizations could share their Internet-related experiences from which valuable lessons could be drawn. There were also eight 'open forums', in which Internet-related organizations could hold meetings and share information about their activities. Eleven Dynamic Coalition meetings enabled these informal multi-stakeholder interest groups to update participants on their progress since they were formed during the Athens meeting. Six further events covered other issues. Of these parallel events, were devoted to the issue of openness and freedom of expression, twelve on development and capacity-building, nine on access, ten on critical Internet resources, six on diversity, 19 were devoted to the issue of security, and 17 on other issues. Of the security sessions nine spotlighted the issue of the protection of children and child pornography on the Internet.

The panels carried on the innovative format started in Athens of interactive multi-stakeholder participation with questions and comments from the audience, facilitated by the moderator. Each of the sessions was chaired by the host country and moderated by journalists or independent experts. This format was generally accepted and well received. The meeting adhered to the commitment that the IGF would foster a dialogue among all stakeholders as equals with no special treatment given to any stakeholder group

There was a general feeling that the meeting had been a success, which built and went beyond the Athens meeting. The richness of the debate, the number of workshops, the multi-stakeholder format, the diversity of opinions, and the number and range of delegates were all cited as indicators of success. Through the speeches made, there was a common thread that the IGF presented all stakeholders with a unique opportunity to catalyze local change by empowering communities, to build capacity and skills, and to enable the Internet's expansion, thereby contributing to economic and social development. Moreover, there was clear support for the multi-stakeholder processes and many participants commented on how the dialogue of the IGF, freed from the constraints of negotiations and decision-making, allowed for ideas to be freely exchanged and debated.

The meeting was attended by 1,363 participants from 109 countries. The breakdown of participants underscored the broad support the IGF has among stakeholder groups with 32% of participants coming from civil society, government representatives were the second largest stakeholder group, making up 30% of the participants, followed by the private sector with 15%, and the technical and academic communities accounting for approximately 10%.

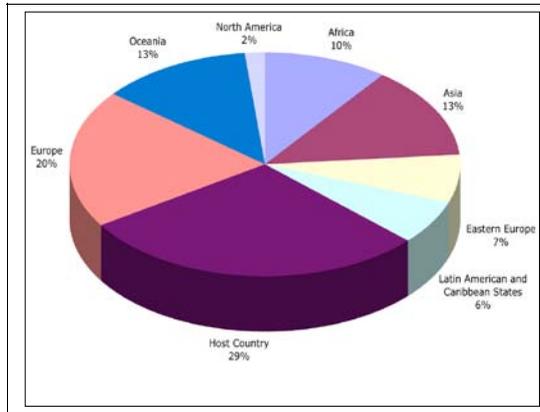


Figure 3: Participant breakdown by region<sup>53</sup>

The meeting saw an increase in the number of participants from developing countries, which was due, primarily, to the fact it was held in South America. Delegates from Africa made up approximately 10% of participants, with Asia keeping its 13% from Athens, Latin American and Caribbean participants increased to 35%, (including the host country's 29%). Oceania (including Australia and New Zealand) made up approximately 13% of participants, a substantial increase from Athens. The delegates from North America and Western Europe made up 22%, down from 36% of the previous year (excluding host country). The gender balance also saw an improvement in the proportion that were women with the split being 69/31 % between men and women respectively.

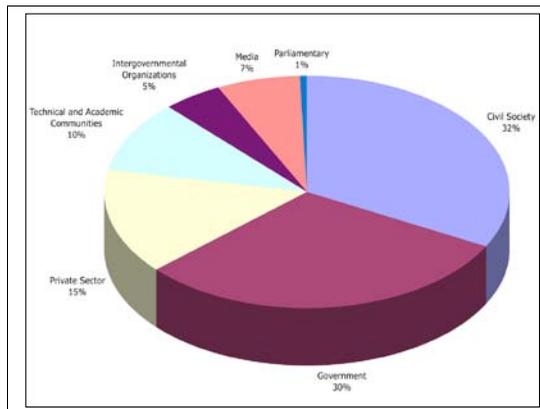


Figure 4: Participant breakdown by stakeholder group<sup>54</sup>

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<sup>54</sup>

Based on registrations with the IGF Secretariat for the Rio meeting.  
*Id.*

Remote participants had the opportunity to participate, via online chat, email, discussion boards and blogs. There were 1172 distinct IP addresses<sup>55</sup> that accessed the web casts of the sessions, indicating a growing remote audience for the IGF meetings.

'Critical Internet resources' was a new main session topic introduced in the Rio meeting. The session covered a wide range of issues related to the physical and logical infrastructure of the Internet. Discussions about ICANN, the role of governments, and Internet oversight also took place within the session. The issues that garnered the most attention at the Rio de Janeiro meeting seem to have been cyber-security focusing on child protection and against child pornography<sup>56</sup> on the Internet. On these issues, participants called for the harmonizing legislation between countries and also for bringing into force new legal instruments that apply to the on-line world. The next issue of highest visibility was access, in terms of getting the next billion people online<sup>57</sup>. This also brought to the fore the issue of diversity with calls for a multilingual Net with additional IDNs (internationalised domain names) to reflect the expanding trends of Internet users in non-English speaking parts of the world

The Internet Society (ISOC) contribution put emphasis on the importance of the 'Access to Access theme' with the context of access to knowledge. The primary concern is that without capacity building in the fundamental skills necessary to use the technology the Internet brings, "considerable portions of the population [that] would never have access."

The linkages between Internet governance and sustainable development emerged as a new issue in the Rio de Janeiro meeting. Already at the Athens meeting there was a workshop 'Greening Development through ICT and Civic Engagement'. The International Institute for Sustainable Development (IISD) launched a book on the subject at the Rio meeting, which comments that the Internet governance community and the sustainable development community can learn from each others experiences, especially in the decision making process<sup>58</sup>. This topic was also brought up in the 'Emerging Issues' main session where one panellist pointed to the positive contribution the Internet may be able to make in the effort against climate change<sup>59</sup>, while the Chairman of Fujitsu at the opening session referred to the importance of taking into consideration the environmental impact of ICTs.

## Online Collaboration and the IGF Web Site

Throughout the preparatory process for both the 2006 and 2007 IGF meetings, all stakeholders were invited to submit contributions for the IGF meetings. Each year, over 100 contributions by governments, private sector, civil society, the academic and technical communities as well as intergovernmental organizations were received. Like the attendance and participation in meetings, the online contributions accentuated the support the IGF has among stakeholders beyond IGF meetings.

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<sup>55</sup> The number does not include access attempts from people inside the venue.

<sup>56</sup> Cf. AFP, *Rio forum to shine torch on the dark side of the Internet*, <http://afp.google.com/article/ALeqM5gTTr0X1GyB3uKCu0WkjqvD8L8IA> and Yahoo News, *UN Internet forum focuses on fighting sex predators*, [http://news.yahoo.com/s/afp/20071116/tc\\_afp/unInternetbrazil\\_07111614145](http://news.yahoo.com/s/afp/20071116/tc_afp/unInternetbrazil_07111614145).

<sup>57</sup> Cf. ABC News, *UN Conference Tackles Digital Divide*, <http://abcnews.go.com/Technology/wireStory?id=3859652>, BBC, *Access key talking point at forum*, <http://news.bbc.co.uk/1/hi/technology/7096411.stm>.

<sup>58</sup> D. MacLean, M. Andjelkovic & T. Vetter, *Internet Governance and Sustainable Development: Towards a Common Agenda 9* (2007).

<sup>59</sup> R. Pepper, Senior Director, Government Affairs, Cisco Systems, [http://intgovforum.org/Rio\\_Meeting/IGF2-EmergingIssues-15NOV07.txt](http://intgovforum.org/Rio_Meeting/IGF2-EmergingIssues-15NOV07.txt).

The contributions addressed a wide variety of public policy issues. Many of them included not only a description of a public policy issue, but also included an expanded discussion on the importance of the issue, the actors involved in the issue and an explanation of reasons why the issue should be included in the agenda of the first IGF meeting.

The Secretariat issued synthesis papers of all contributions received by early August 2006 and 2007 respectively. The papers were translated in all UN languages. They were organized in terms of the broad key themes of the Athens, respectively the Rio meetings and summarized the submissions along with a synthesis of the main arguments made in the formal consultations process.

The Web site proved to be a useful tool for creating an open, continuous and inclusive process. The increase in the Web site visits from the first to the second IGF meeting mirrored the increased interest in the IGF. In both years, it peaked at the meeting itself. Compared to 2006, the number of visited pages in 2007 almost doubled, indicating an increased interest in the substance matter. In both years (2006 and 2007), it gathered momentum in the period leading up to the consultations. In 2006, the Web site received over 50,000 hits towards the second round of consultations in May 2006. The number of hits also gathered momentum in the period leading to the September consultations and peaked shortly before the inaugural meeting itself.

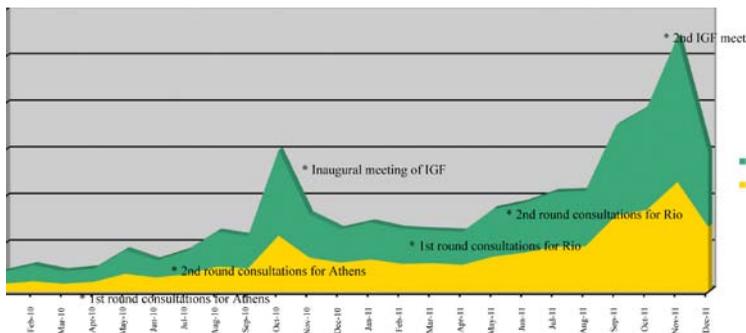


Figure 5: IGF Web site traffic (2006 and 2007)

The pattern was repeated in 2007 with the Web site gathering momentum in the period leading the consultations, particularly the period leading to the third consultations in September when the Web site received more hits than the ones received towards the 2006 IGF meeting. The momentum was maintained up to shortly before the second IGF meeting (see figure 5).

Towards the end of December 2007, the interest in the IGF Web site sustained a level of activity more than the level of the 2006 IGF meeting. The sustained level of activity in the IGF Web site beyond IGF meetings underscores the strong support from stakeholder groups.

The geographical spread of the visitors of the IGF Web site shows a very strong US interest, with 57% of the total. Visitors from Western Europe, with 21,4% of the total, were the second biggest group. All the other visitors were fairly evenly spread among

the other regions, but at a much lower level, below 5% of the total, with the exception of Asia with 5,34% of the total.

## Taking Stock after Rio de Janeiro

During the Rio meeting several issues came to the fore such as issues concerning child protection on the Internet. There were several references made to the linkages between Internet governance issues and environmental issues such as sustainable development, climate change and other issues of a global significance.

After the meeting, the Secretariat again issued a call for contributions on the IGF website to give an opportunity for stakeholders to give feedback on the Rio de Janeiro meeting and make suggestions on what could be improved for the next meeting in Hyderabad, India. These suggestions were to be used for input into the 'Taking Stock' session, held in Geneva on 26 February 2008. The Secretariat received 23 contributions down from 32 for the Athens stocktaking. It was said this should not be taken as a lack of interest but more as a sign that, overall, participants were satisfied with the meeting and had no complaints to make<sup>60</sup>.

The feedback received indicated that there was a general feeling that the meeting had been a success, which built upon and went beyond the Athens meeting. The richness of the debate, the number of workshops, the multi-stakeholder format, the diversity of opinions, and the number and range of delegates were all cited as indicators of success. Through the speeches made, there was a common thread that the IGF presented all stakeholders with a unique opportunity to catalyze local change by empowering communities, to build capacity and skills, and to enable the Internet's expansion, thereby contributing to economic and social development. Moreover, there was clear support for the multi-stakeholder processes and many participants reiterated comments heard from the Athens meeting on how the dialogue of the IGF, freed from the constraints of negotiations and decision-making, allowed for ideas to be freely exchanged and debated. There was also a need expressed for reviewing the IGF preparation process in order to allow a broader, more balanced and more representative participation from all stakeholders, which would allow as much diversity of opinion as possible. Calls were also made for improving what was seen as an insufficient gender balance.

The MAG was commended for its efforts. Though, some felt that the MAG meetings were too secretive and called for more openness and transparency in its meetings and processes. There were comments made on remote participation with calls for more resources and efforts to be made in order to include those interested stakeholders who could not physically attend the meeting.

The village square was praised and there were suggestions that it should be expanded in the future IGF meetings. The format of the workshops was seen as innovative though it was felt that the number of panellists could be reduced in future IGFs. The Chairman's summary was said to add value to the main sessions and it was suggested that the summary be translated into all six UN languages in order to foster worldwide awareness of the IGF's findings. There was a general feeling that participants wanted the IGF's format to continue to evolve and not be a prisoner of meeting formats inherited from past meetings.

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<sup>60</sup> Transcript of the 26 February taking stock session: <http://intgovforum.org/feb26/Geneva-IGF-2-26-08%20Full%20Day%20ver1.txt>

## Excerpts from Syntheses of Contributions and Consultations

Each of the first two meetings of the IGF was preceded by two rounds of public consultations focused on the content and organization of the upcoming meetings. Each of the two yearly meetings was followed by a public consultation to review the meeting.

Before each of these public consultation a public call went out for contributions. These contributions were then synthesised into a paper that was used as a starting point for the public consultations and the Multistakeholder Advisory Group discussions. After the consultations, the synthesis paper was generally updated reflecting the comment received during the consultation

### Preparation for Athens

The preparatory process for the inaugural meeting of the IGF was conducted in an open, inclusive and transparent manner. Two rounds of public consultations, open to all stakeholders, were held in Geneva on 16 February and on 19 May 2006. The consultations allowed all stakeholders, including individual participants with proven expertise and competence, to take part on an equal footing. From these consultations there emerged a common understanding of how the IGF should operate and what issues it should address.

The preparatory process for the convening of the Internet Governance Forum (IGF) started a broad-based discussion on the substantive agenda. At the first round of consultations, participants were invited to list the top three policy issues they would like the first meeting of the IGF to address. After the consultations, a short synthesis of the public policy issues discussed during the meeting and also reflecting responses to a questionnaire was released by the IGF Secretariat. This synthesis included:

- A recognition of an emerging consensus that the activities of the IGF should have an overall development orientation.
- A recognition of an emerging consensus that capacity building to enable meaningful participation in global Internet policy development should be an overarching priority.
- A recognition that meaningful participation included both assistance to attend meetings and training in the subject matter of Internet governance.

Following the February consultations, a call for comments was issued. A total of 43 contributions were submitted by governments, private sector, civil society, the academic and technical communities as well as intergovernmental organizations. The contributions addressed a wide variety of public policy issues. Many of them included not only a description of a public policy issue, but also included an expanded discussion on the importance of the issue, the actors involved in the issue and an explanation of reasons why the issue should be included in the agenda of the first IGF meeting.

The emerging consensus, originally reported after the February consultations, that the IGF needed to maintain an overall development orientation was reinforced by many of the contributions. Capacity building was the most frequently addressed issue. When looking at capacity building it was pointed out that access to education, culture and knowledge was a recognized human right. Other authors pointed out the necessity of

fostering the ability of all stakeholders from all countries to participate in the process of Internet governance. The discussion of capacity building also extended to consideration of technical standards and the need that they be developed in such a way as to not hinder capacity building. It was suggested that explicit action should be taken to explore the offering of relevant Internet Governance educational resources online.

A cumulative listing of priority issues confirmed by the stakeholders included:

- Spam
- Multilingualism
- Cybercrime
- Cybersecurity
- Privacy and data protection
- Freedom of expression and human rights
- International interconnection costs
- Bridging the digital divide: access and policies
- Bridging the digital divide: financing
- Rules for e-commerce, e-business and consumer protection.

Different views were held with regard to the structuring of the agenda of the inaugural meeting of the IGF: one approach favoured a focus on a small number of issues to be dealt with in depth, while another approach favoured a broad discussion on any issue that was considered to be important.

The preparatory process also addressed organizational aspects, in particular how the preparatory process should be managed. In light of the opinions expressed, the United Nations Secretary-General established an Advisory Group on 17 May 2006 to assist him in convening the IGF. The group included 46 members from government, the private sector and civil society, including the academic and technical communities, who represent all regions of the world. Its chair was Nitin Desai, the Secretary-General's Special Adviser for Internet Governance.

The Advisory Group met on 22-23 May and 7-8 September in Geneva and proposed the programme and substantive agenda for the Athens meeting. 'Internet Governance for Development' was chosen as the overall theme of the meeting, with capacity building as a cross cutting priority. The following four broad themes were proposed as the main topics for discussion:

- Openness - Freedom of expression, free flow of information, ideas and knowledge;
- Security - Creating trust and confidence through collaboration, particularly by protecting users from spam, phishing and viruses while protecting privacy;
- Diversity – Promoting multilingualism, including IDN, and local content;
- Access - Internet connectivity: Policy and cost, dealing with the availability and affordability of the Internet including issues such as interconnection costs, interoperability and open standards.

General sessions on the first and the last day were set aside to allow participants to address horizontal themes as well as institutional aspects of the IGF and look at emerging issues and discuss future priorities.

Following the meeting of the Advisory Group, a call for contributions was issued on the IGF Secretariat Web site and 2 August was set as a deadline for submitting contributions. There were 79 submissions from 45 different contributors within that deadline.

Issues surrounding the nature of Internet governance were raised by many of the contributions to the IGF consultation process. These contributions focused on several themes, in particular the general organizational setting of existing Internet governance mechanisms, the processes they invoke as well as the management and tasks of Internet governance organizations.

Many of the contributions discussed the ways in which Internet governance mechanisms can only be understood in a broader set of issues and international and national policy frameworks. Thus, for example, the Council of Europe pointed out that Internet Governance, for its members, incorporated the principles and frameworks which are designed to ensure development of the Internet and the Information Society. Thus, for them, Internet governance issues embrace The European Convention on Human Rights and other Council of Europe instruments, like the Cybercrime Convention, which provides a framework on the European level for examining State responsibilities and guiding State policies.

The role of the IGF was debated in several of the submissions. Some emphasized that the IGF mandate was clearly set out in the WSIS Principles and Tunis Agenda. The Russian Federation in its contribution indicated that it would like the IGF to address the principles and future mechanisms of international Internet governance and discuss issues relating to the administrative management of the Domain Name system (DNS) and IP addresses.

There was broad consensus on the importance of the development agenda as a focal devise for the IGF, in particular issues such as capacity building, and increasing the level of democracy and transparency of Internet Governance. The South Centre identified two broad types of capacity building: the first type related to improving the institutional knowledge and understanding of Internet governance issues for governments and their representatives with the aim of enabling developing countries to advocate their needs more effectively with other governments and the private sector; the second related to improving the ability of citizens to fully utilize the benefits of the Internet.

There was some concern expressed in the consultations about the balance of interests in a multi-stakeholder environment. Some argued that the IGF could be in danger of being captured by dominant political and business interests. As a result, it was argued, the IGF should focus on the development issues surrounding the Internet as a public infrastructure with a strong public goods perspective.

The Council of Europe noted that the IGF could help explore and map out unanswered questions regarding the interpretation of rights in online situations. Important issues that needed to be addressed were privacy of correspondence or communications over the Internet and in particular how the State should deal with third party interference, the right for freedom of expression and information and the role of third party actors, such as Internet service providers and their notice and take down actions. The Council of Europe also noted that it was important to explore security and stability through the

human rights prism. Others emphasized that up to this point existing Internet governance arrangements had been successful in keeping the technological core infrastructure from political and commercial manipulation and expressed their hope that this should continue in the era of multi-stakeholder Internet governance.

## The Four Broad Themes of the Inaugural IGF Meeting

### A. Openness

Throughout the preparatory process, many speakers and contributors highlighted the importance of openness as one of the key founding principles and characteristics of the Internet. The open nature of the Internet was seen as part of its uniqueness, and its importance as a tool to advance human development. The Internet provides for a robust and unencumbered exchange of information, and welcomes millions of individuals as users from all corners of the world. Internet users trade ideas and information and build on both, thus increasing the wealth of knowledge for everyone, today and in the future. The openness of the Internet was also seen as a key feature to ensure its stability and security.

Many submissions pointed out that the Internet made it possible for more people than ever before to communicate and therefore to express themselves (i.e. to hold, receive and impart information and ideas regardless of frontiers) as clearly and as quickly as such a low cost. Access to knowledge and empowering people with information and knowledge that is available on the Internet was described as a critical objective of an inclusive Information Society and to continued economic and social development.

There was a wide spread acceptance across the contributions that because the Internet was designed for efficiency and not control, it has enabled millions of people all over the world to educate themselves, express their views, and participate in democracy to an extent never before possible. Moreover, there was also wide spread recognition of the fact that the distributed nature of the Internet whereby control is placed at the ends, or in the hands of users, rather than at a centralized point, is a key architectural feature of the Internet that has ensured that freedom of expression and the free flow of information. Hence there was a consensus around the importance of openness in fostering processes of development.

There was a general understanding that one of the most important set of rules governing online behaviour is the body of law dealing with intellectual property rights (IPR) in cyberspace. Because of the unique digital nature of the Internet – copies of data are necessarily made to engage in just about any online activity – almost all uses of the Internet automatically trigger intellectual property rules. However, there was no common understanding on how these rules should be shaped to protect the openness of the Internet and the free flow of information.

For some, the real concern was that the direction of current policy development with regard to IPR and technological innovation, such as with regard to digital rights management (DRM) and technology protection measures (TPM) were capable of undermining the free flow of information and the openness of the Internet.

The need to maintain an open Internet was also seen as a prerequisite to sustainable development. Several contributions focused on the role of free flow of information as a mechanism for sustaining development and inhibiting the 'brain drain' from poorer to richer countries. Critical to these types of arguments is the view that openness of the

Internet is about looking at ways to ensure a fairer distribution of scientific knowledge between countries. Such flows of information are axiomatic to the innovation process and support the development of small and large businesses in developing countries.

The importance of open and online education resources was highlighted by a number of contributors. These arguments were reinforced by others who highlighted guiding principles for the free flow of information, namely: public access to works created by and funded by public authorities; to ensure the smooth migration of content into new formats for purposes of preservation; lending and copying those materials that still have a copyright but are not under commercial use; measures to encourage individual research and study by allowing copying of protected material/content by individuals for personal use (research and study) and measures to harmonize copyright legislation.

The rights of minority groups and indigenous peoples with regard to both access to information and the protection of their cultural heritage were raised by some contributors. Amongst the points made were that the free flow of information and access to knowledge ensured the development of the Internet and freedom of expression as well as being a vital human right, also contributing to a growing public domain. One group argued that unauthorized use of indigenous people's cultural heritage, like the use of indigenous names and terms as Internet domain names, could cause economic and social harm to those people.

## B. Security

Many contributors and speakers throughout the preparatory process emphasized that Internet security was a key element of building confidence and trust among users of ICTs. They argued that the Internet had the potential to enable users to access and generate a wealth of information and opportunity. Achieving the Internet's full potential to support commercial and social relationships required an environment that promotes and ensures users' trust and confidence and provides a stable and secure platform for commerce.

It was pointed out that although each new device and interconnected network increases the capacity for users and their communities to make beneficial economic and social advances, they also increased the exposure of individuals and organizations to potential harm from unintentional, intentional and also illegal behaviour. Security and privacy breaches such as phishing, viruses and spam undermine users' confidence and trust. Concern for network and information security therefore detract from the Internet as a medium delivering economic and social development. These threats also create enormous cost burdens for users around the world, reducing the continued growth and utilization of the beneficial aspects of the Information Society.

There was a general understanding that solving these problems depended on a heightened awareness and understanding among all stakeholders of the importance of a secure Internet infrastructure. It would involve a combination of initiatives (national, international, private sector, and technological) and doing so required enhancing the users' abilities to control their data and personal information. One major concern was to find the appropriate balance between security and ease of use and openness. There was also need for a balance between measures to fight crime and protecting privacy and freedom of expression. Ultimately, the responsibility for ensuring Internet security rested with all stakeholders and required cooperation among them.

Several contributions focused on the issues of security. Many of these papers presented well-established work that had been done in other contexts, but was relevant to the

work of the IGF.

A recurrent theme of the papers submitted was the need to adopt international best practices and to ensure greater international cooperation in a multi-stakeholder environment. Thus, for example there was a widely held view that with respect to preventing cyber-crime the IGF should promote cooperation between different stakeholders and agencies, educate the users of ICTs, taking care to explain security threats in a plain language to the end-users and award individual contributions making the Internet a safer place. The contributions also illustrated the extensive nature of existing work done to increase security and confidence in the Internet and combat harmful and illegal activities. It was widely accepted that the poor levels of security (such as, phishing, spam, malware and leakage of personal information) was a major cause of concern for business and users and could ultimately undermine trust in the Internet.

One of the intergovernmental organizations dealing with security issues, the Organisation for Economic Co-operation and Development (OECD), explained in its contributions its mandate to conduct research and analysis and develop policy frameworks to sustain trust in the global networked society, with a primary focus on information security and privacy. The OECD also established a Task Force on Spam. Each of these initiatives produced substantial results, for example the OECD Guidelines for the Security of Information Systems and Networks: Towards a Culture of Security (2002) and the Anti-Spam Toolkit – the focal point of the OECD submission to the IGF.

A common thread to the contribution papers was that many measures are available to tackle spam. To reduce the amount of spam, the OECD argued that national anti-spam regulation should attempt to preserve the benefits of electronic communications by increasing user trust in the Internet; prohibit and take action against the act of spamming, as defined by national law. To achieve these goals, national legislation should follow some key principles: the legislation should have a clear policy direction; the enforcement of the law should be effective and, as spam was a cross-border issue, the legislation should foresee appropriate international linkages.

Similar arguments were voiced by the Secretariat of the International Telecommunication Union (ITU) in their submissions. In particular, the ITU drew attention to the following priorities:

- to address cybersecurity concerns in order to provide secure and accessible e-service;
- to develop a common understanding of the issues of spam and cyberthreats, including countermeasures;
- to promote cooperation and outreach to support the collection and dissemination of cybersecurity related information to minimize prevent and detect cyberthreats;
- to facilitate regional and interregional cooperation and support appropriate capacity building, which could include the development of Memoranda of Understanding among interested member States to enhance cybersecurity.

The OECD also stresses the importance of the Internet Service Providers (ISPs) and the need for governments and regulators to support the development of ISP codes of best practice that complement and are consistent with legislation. This view was echoed in the comments of others, for example, the International Chamber of

Commerce (ICC). For some, the extension of what can be seen as self-regulatory measures could be extended into 'quality assurance' measures, such as Internet quality labels.

Many contributors argued that issues of cybersecurity were so clearly international that it was important to build mechanisms through which the international community could co-operate against security threats. Underlying this view was the need to focus resources on a widely diffused issue; it was felt by some that the efforts of a single company or country were no longer sufficient to combat increasing security threats. In this regard there were suggestions as to the activities that could be undertaken and supported by the IGF. Hence there was a view that the IGF should start a discussion about non-geographic reporting and policing, enabling to report and monitor crime across the borders; that the IGF should encourage the allocation of more resources in order to identify the scale and nature of current cybercrime.

Whilst the notion of spam was widely seen as an abuse and misuse of the Internet, there was clearly a need, as argued by some, to distinguish between the legitimate business needs and benefits of commercial electronic communications and spam. If spam was seen as harmful, fraudulent, malicious, misleading or illegal communications, generally sent in bulk, then it should be possible to differentiate between other forms of mass communication on the Internet. Such a differentiation between these two could help the relevant institutions dealing with this issue to focus on the harmful effects of spam.

Interwoven into the debate on security were several other significant issues, such as human rights and the protection of privacy. The Council of Europe argued that although multi-stakeholder cooperation was undoubtedly the most effective way to respond to many of the security and stability related issues, it was necessary to think about abuse and misuse of the Internet in terms of the denial of human rights.

One contribution asked whether the current security measures were about democratically accountable partnerships or self-protection of special interest groups. It argued that the scale of cybercrime was not accurately measured at the moment as phishing of spam were inadequately reported.

Other key issues on privacy raised in the consultation process included the rights of business to collect and use personal information from and about employees to comply with labour tax and other laws, to administer benefits, to operate their businesses and to serve their customers. The argument was that businesses should not be prevented from making appropriate, focused and reasonable use of pre-employment screening procedures for prospective employees, provided that the employees know that this may happen. It was noted that companies were increasingly legally required to vet employees in the areas of health, childcare, teaching, finance, or privately provided security and law enforcement provisions. As a consequence there was the need for flexibility to facilitate access to information, communications, and commerce on global scale and the ability to accommodate differences in interpreting privacy in the workplace.

One of the very specific debates about privacy raised in the consultation process was with respect to the WHOIS database. The core of the argument was that the current policies of ICANN/IANA for the administration of the WHOIS database, requiring both accurate data and public access to those data, was seen to be in direct conflict with broadly accepted principles and regulations for privacy protection in some jurisdictions. As a result it was argued that ICANN, in collaboration with others, should establish the official purpose of the WHOIS database in accordance with its original and specific

purpose, *i.e.*, that of enabling the reliable resolution of technical problems surrounding domain registration.

Some of the contributions sought to look at innovative solutions to issues of security. One such approach centred on the concept of 'trusted computing'; a process designed to increase security as well as prevent computer users from making any un-authorized operations.

## C. Diversity

While it was generally applauded that by now almost one billion people use the Internet, it was also pointed out that many of these people could not read or write in English, and they used languages that do not use the Latin alphabet. It was generally recognized that everybody should be able to use the Internet in their own language. A multilingual Internet would foster an inclusive, democratic, legitimate, respectful, and locally empowering Information Society.

Many contributions emphasized that a key element of promoting multilingualism on the Internet was creating the availability of information in local languages. A number of different organizations submitted papers under this theme and discussed the benefits of a multilingual Internet to the local communities.

Several submissions stressed the importance of linguistic and cultural diversity as essential elements for the development of the Information Society. However, in their view the lack of access to the Internet in indigenous languages was detrimental to many potential and existing users. These detrimental effects were typically most commonly felt in developing countries. Some contributions argued that governments should design policies to support the creation of cultural, educational and scientific content (in line with the UNESCO Universal Declaration on Cultural Diversity) and, in particular, develop national policies that encourage the use of information stored in archives, museums and libraries to provide content in the Information Society.

One submission focused on the use of keywords. The paper suggested that it was essential to look now at the future of keyword systems. The future could hold multiple variations to a single keyword lookup. Thus, keywords could be iconic, oral, non-verbal sounds or translated into other multiple keywords in any other language, which would open interesting avenues for handling multilingual web contents.

Many of the papers discussed the management of the DNS and various ways to turn it into a system that allows multilingual use, but each arrived at different recommendations. The issues surrounding Internationalized Domain Names (IDN) were addressed by several of the submissions. It was recognized that as technical solutions to address issues of multilingualism became more localized, questions of global interoperability became more complex and harder to guarantee.

The ITU Secretariat provided an overview of its activities on IDN based on the work of Study Group 17 (Security, languages and telecommunication software). ITU was given the mandate by The World Telecommunication Standardization Assembly to study IDN as it was considered that implementation of IDN would contribute to easier and greater use of the Internet in those countries where the native or official languages are not represented in International Reference Alphabet (IRA) characters.

However, some expressed the view that the issue was now not one of establishing multilingualism but one of ensuring consistency across the national registries. There was a need to ensure that the processes for development, maintenance, upgrade and

resolution could proceed in a manner that would preserve the stability, integrity and security of the Internet.

#### D. Access

Many contributions, in particular from developing countries, reminded that, despite the rapid spread of the Internet, five billion people remained without access to this important tool for economic growth and social development. They recalled that access could therefore be the single most important issue to most people, in particular in developing countries.

Some contributions underlined that there were several factors that conditioned the availability and affordability of the Internet. The appropriate regulatory environment (sometimes referred to as the enabling environment) at the national level could do much to foster the deployment and growth of the Internet. National policies could encourage investment in capacity and growth, support the establishment of Internet exchange points (IXPs), create a favourable legal climate for supporting e-commerce, promote the extension of broadband networks, and encourage competition in the ISP industry that would lower prices.

It was pointed out that another element that could influence the availability and affordability of the Internet were international connectivity prices and costs. Interconnection standards and agreements, including peering arrangements, were seen to be critical to the successful functioning of the Internet and for maintaining its end-to-end and cost effective availability and reliability.

Submissions dealing with access focused on three key issues. The first was the overriding significance of access to the delivery of an information society and how access was so unevenly distributed across and within countries. The second area was the importance of open standards in maintaining the openness of the Internet, fuelling innovation and supporting the rapid diffusion of new services and technologies. The third area of focus was the cost of access.

There was a concern that the topic of access within WSIS as well as other Internet governance discussions had focused on access as an issue of infrastructure rather than issues of quality, content and affordability. The key argument was that infrastructural access was of little use to end users if access to content and services and the level of prices was not included in the concept and discussion of access. It was commented that access and openness of information were linked concepts.

Some submissions developed the argument that access was more than infrastructure and pointed to the interplay between the digital divide, access and multilingualism. Often the indigenous languages were not written languages, so for indigenous people to gain access needed unconventional solutions from software and hardware point of use.

Those submissions that addressed the question of open standards all focused on the positive outcomes from the longstanding custom with the Internet technical community of openness and strongly argued against any moves to weaken the norm of open standards.

Many of the submissions argued that open access processes had driven growth and connectivity in the Internet and that this foundation stone of the Internet should be borne in mind as issues of Internet Governance became major public policy debates. For some the biggest threat to the stability, growth and global reach of the Internet could come from lack of understanding of the way in which the Internet's technologies and

resources are developed and coordinated. It was therefore important for policy makers, both in the public and private sectors, to have an understanding of how the Internet developed and what made it so successful.

Other submissions focused on the significant positive 'network effects' that were delivered through open standards and how these network effects were fundamental to understanding why the Internet and the World Wide Web were such powerful communication and collaboration tools. Some papers drew attention to the existing balance between IPRs and public goods and the ways this balance was being challenged by a combination of elements including the growth of software patents, the failure of so-called "reasonable and non-discriminatory" licensing, and competitive business strategies and trade relations.

Another dimension, discussed by some contributors, was the role of open standards in promoting competition on an equal basis across a wide range of Internet markets. One contribution set out some guidelines for providing effective open standards and interoperability policies and promoting open standards for eGovernment services.

Many submissions stressed the need to differentiate between two distinct issues: how to define and uphold open standards on the one hand and the debate over proprietary versus free and open source software (F/OSS) on the other. The proponents of F/OSS argued that the Internet and free and open source software went hand-in-hand. It was F/OSS that made the Internet and the World Wide Web possible and continued to shape and develop it.

One submission argued that Internet standards were the mediators between competing economic interests reflecting multi-stakeholder tensions (such as the tension between access to information and IPRs). It also noted that Internet standard bodies shared no common procedural norms, as there were numerous organizations setting standards in the Internet space and also that, procedural and informational openness varied by organization. There were barriers of entry to the standard setting procedures as some of the standards bodies tended to exclude non-members and powerful interests sometimes dominated standards setting processes and procedures. For example, it was argued that some entities had used IPRs to unfairly maximize royalty revenue from adopted standards while others had used standards as part of product marketing strategies, creating barriers to interoperability and restraints on competition.

Several of the submission stressed their own role in the debate over open standards and standard making processes. For example, ISOC submitted an article from its news bulletin which emphasized that as the "organizational home" of the Internet standards processes, it had a unique position to help policy makers to understand the implications of Internet technologies and to develop effective and fair Internet coordination policies. Similarly the ITU Secretariat highlighted its long-standing formal role in the international community in the standards making processes.

The question of interconnection costs was addressed by several submissions, in particular the way in which the costs of the network and access and the associated revenues were distributed between the different players. In its submission on this subject matter, the ITU Secretariat presented the recommendations of the World Telecommunication Standardization Assembly, recognizing the need for compensation between the providers carrying the traffic. The paper stressed that such arrangements for Internet traffic interconnection should be agreed upon on a commercial basis when direct international Internet links are established.

Others argued that the issues of Internet interconnection and especially international

connectivity could be addressed by the liberalization of telecommunication markets which have over recent years successfully supported access growth, service innovation and dramatically lowered the price of Internet access. In the OECD's experience, concerns raised in respect to Internet traffic exchange have been overcome as commercial solutions have been applied but they also note there is pressing need to develop human capital, particularly inter-networking skills, along with infrastructure such as Internet exchange points.

## Preparation for Rio

As a follow-up to the inaugural meeting of the IGF was held in Athens, on 30 October – 2 November 2006 the Secretariat issued a call for contributions on the IGF Web site on 11 December 2006 with the aim to take stock of the Athens meeting, assess what worked well and what worked less well and make suggestions with regard to the preparation of the meeting in Rio de Janeiro. To stimulate the discussion, the Secretariat set up an online forum on the IGF Web site. More than 800 users joined the forum and seven active discussion threads were developed on the four broad themes of the Athens meeting as well as on how to improve remote participation.

As with the first year, there was a general view that the IGF needed to maintain an overall development orientation. Capacity building was the most frequently mentioned issue in the public consultations and was also referred to in several of the contributions. It was presented not only in terms of the growing consensus for its priority in enabling meaningful participation but also as a specific policy issue. When looking at capacity building, it was pointed out that access to education and knowledge was a recognized human right. The necessity of fostering the ability of all stakeholders from all countries to participate in the process of Internet governance was also pointed out. It was suggested that explicit action should be taken to explore the offering of relevant Internet governance educational resources online.

The second IGF meeting to be held in Rio de Janeiro included the four themes from the first meeting in Athens as well as a fifth theme, relating to critical Internet resources. In addition, the programme included a session on emerging issues. The agenda, was follows:

- Critical Internet resources;
- Access;
- Diversity;
- Openness;
- Security.

## The Substantive Agenda of the Rio de Janeiro Meeting

### A. General Comments

There was a general recognition that the first IGF meeting in Athens, Greece, had been an effective beginning that should be built upon. It was pointed out that the IGF should continue as a forum for multi-stakeholder policy dialogue as foreseen in the Tunis

Agenda.

Issues surrounding the nature of Internet governance were raised by several of the contributions to the IGF consultation process. These contributions focused on several themes, in particular the general organizational setting of existing Internet governance mechanisms, the processes they invoke as well as the management and tasks of Internet governance organizations.

One contributor wrote about discussions in Africa that emphasized the importance of localizing Internet governance. The localization would enable not only the expression of local concerns, but would help in bringing these perspectives to international attention. There was also a strong concern for ensuring the multi-stakeholder nature of the communities at the local level, as well as at the regional and international levels.

Several of the comments received during the course of the year discussed the ways in which Internet governance mechanisms could only be understood in a broader set of issues and international and national policy frameworks. For example, the contribution of the Council of Europe (CoE) pointed out that Internet governance, for its members, incorporated the principles and frameworks that are designed to ensure development of the Internet and the Information Society. Thus, Internet governance issues embrace *The European Convention on Human Rights* and other Council of Europe instruments, like the *Cybercrime Convention*, which provide a framework for examining State responsibilities and guiding State policies.

The Council of Europe also expressed the view that Internet governance should be governed in all respects by human rights, particularly the freedom of expression.

It was suggested treating development along side the five other themes as a major thematic focus as a way to ensure that sufficient attention was paid to the development dimension.

One contribution stated that there had been little discussion about the definition of a development agenda. Identifying the development agenda with capacity building was inadequate as this just helped to reinforce the status quo.

It was suggested that the IGF focus more on governance issues proper, such as concrete policies and programmes adopted by the relevant intergovernmental, private sector, and multi-stakeholder organizations and networks that were involved in security and governance.

## B. Critical Internet Resources

While all contributions that wrote of critical Internet resource issues underscored the importance of names and numbers, several of the contributions supported a broad concept of critical resources. The definition of critical Internet resources contained in the report of the Working Group on Internet Governance (WGIG), which included issues relating to infrastructure, technical standards, peering and interconnection, telecommunications infrastructure, including innovative and convergent technologies, and multilingualization, was highlighted in this regard. The point was made that discussions on this issue should also include the varying perspectives of all stakeholders.

A government contribution made some concrete proposals:

- The inclusion of capacity training in the details of the management of critical

Internet resources should be part of the IGF agenda. This could be done by the relevant stakeholders currently responsible for the mechanisms and structures involved in the status quo of the current administration of critical resources.

- That all stakeholders, especially governments, use the platform of the IGF to discuss the participation in the public policy issues of the governance of critical Internet resources. These discussions should reflect “fully the principles of multilateralism, democracy and transparency of Internet governance”.
- There should be a discussion on the distribution of Internet addresses “within the IGF framework on how to ensure the equitable access by all countries to IPv6 address resources and how to promote balanced development of future Internet in all countries particularly developing countries during the transition from IPv4 to Ipv6”.
- There should be discussions concerning the issue of “equitable addition, deletions and adjustment of gTLDs.”

Another contribution stated that the governance of critical Internet resources had significant public policy implications. When private organizations, for example the Internet Corporation for Assigned Names and Numbers (ICANN), were responsible for these resources, especially the resources that affected state public policy concerns, these organizations became agents of the state and should be subject to state regulation and oversight. They also wrote that ICANN, which is currently only answerable to the United States, should be answerable to the international community at large.

It was commented that the current private sector led arrangements for Internet operations and management were working well and should not be changed. It was also pointed out that since ICANN was still under a contract with the United States Government, a way to achieve greater neutrality and to promote global management of the Internet should be discussed.

One contribution recommended that “the political assumptions and objectives of existing structures and processes” in governance of critical Internet resources be examined. An examination needed to be undertaken of the political assumptions and objectives of existing structures and processes of such governance, including an examination of who the beneficiaries are from the status quo. Such a discussion needed to examine the nature of technical issues versus public policy, the nature of their overlap/ interface, as well as their appropriate institutional mechanisms.

The addition of critical Internet resources as a stand alone topic was questioned, as was what was termed “the added value of a separate debate considering that there are no clear boundaries from the other main themes” that also related to critical Internet resources. The need for a clear definition of the framework for the discussions was also emphasized. Issues already decided at WSIS should not be reopened and the work of existing organizations should not be challenged.

The view was also held that the critical Internet resources theme should be viewed within a broader context of Internet governance and should be linked to national and local management of these resources.

## C. Access

Many speakers during the preparatory process pointed out that despite the rapid spread of the Internet, five billion people remained without access to this important tool for economic growth and social development. They recalled that access could, therefore, be the single most important issue to most people, in particular in developing countries.

One contribution wrote that achieving the public service value of the Internet required universal and affordable access to ICT infrastructure for all. In their view this required a stable legal and regulatory structure that made it safe for businesses to invest. They also called on States to provide public access points to provide a "minimum set of communication and information facilities, in accordance with the principle of universal community service".

It was also pointed out that building out infrastructure was indispensable for bridging the digital divide especially in rural areas. Any build out of infrastructure should be accompanied by education on ways of using the Internet.

The importance of the 'Access to Access theme' with the context of access to knowledge was emphasized. Without capacity building in the fundamental skills necessary to use the technology the Internet brings, "considerable portions of the population [that] would never have access".

There was one report from an Internet governance session at a meeting held in Abuja, Nigeria, in May 2007. Speakers at this meeting spoke of the importance of encouraging regulatory reform at the local level in order to enable "a more conducive and lower cost access environment".

The importance of an enabling environment at the national level to improve access was emphasized by several contributors and speakers. In their view, it was important to stress the legal, policy, and regulatory conditions that enable private sector investment and innovation, promote competition and foster entrepreneurship in order to promote access to the infrastructure and the Internet.

A contribution from the business community wrote of the importance of the public sector recommendations from the WTO in establishing the correct regulatory and political environment for the deployment and public adoption of a broadband infrastructure. Elements of this policy included telecommunications liberalization as well as pro-competitive regulations for basic telecommunications. They also discussed the importance of ensuring efficient and effective use of the radio spectrum, which could involve removal of government restrictions on the services that can be used on certain frequencies and the elimination of artificial spectrum scarcity. In the case of rural, remote and other under accessed services, this contribution supports government policy to provide such access, including some subsidization for rural or lower income customers, if these are pursued in a transparent and competition neutral manner and through the use of general tax revenues or tax incentives.

## D. Diversity

While it was generally applauded that by now almost one billion people use the Internet, it was also pointed out that many of these people could not read or write in English, and that these people also used languages that do not use the Latin alphabet. It was generally recognized that people everywhere should be able to use the Internet in their own language. A multilingual Internet would foster an inclusive, democratic, legitimate,

respectful, and locally empowering Information Society.

One contribution discussed the importance of promoting and protecting locally developed content, including content that is not commercially viable, as a means of increasing the diversity on the Internet. They also discussed the importance of language communities in developing multilingual content, including content in indigenous and minority languages.

It was suggested that stakeholders should share technology and know-how to help the elderly and people with disabilities to use the network without the stress they normally experience in dealing with the Internet.

Several contributions discussed the importance of Internationalized Domain Names (IDN) as essential for continued Internet development. One indicated that “a multilingual environment will increase local interest in Internet content and increase the possibilities for all language groups to share and access information in their own languages”.

It was stated that the introduction of IDN could become mired in many problems that could adversely affect business and consumers alike. A major concern involved the confusion that might occur across language, or script, boundaries. These confusions could affect consumer trust of trademarks and make protecting the intellectual property rights prohibitively expensive for business. Concerns also extended to the fraudulent use that could be done in the case of confusion used for phishing attacks. Another major concern for the business community was the need to maintain a single domain name space across various language and script boundaries.

## E. Openness

Throughout the preparatory process, many speakers and contributors highlighted the importance of openness as one of the key founding principles and characteristics of the Internet. The open nature of the Internet was seen as part of its uniqueness, and its importance as a tool to advance human development. It was emphasized that the Internet provided for a robust and unencumbered exchange of information, and welcomed millions of individuals as users from all corners of the world. Internet users traded ideas and information and built on both, thus increasing the wealth of knowledge for everyone, today and in the future. The openness of the Internet was also seen as a key feature to ensure its stability and security.

Many have pointed out that the Internet makes it possible for more people than ever before to communicate and therefore to express themselves. Access to knowledge and empowering people with information and knowledge that is available on the Internet was seen as a critical objective of an inclusive Information Society and to continued economic and social development.

Several contributions stressed the importance that the Internet be underpinned by the democratic values of openness and accessibility.

One contribution, while recognizing legitimate public policy objectives such as protecting the general public, and particularly children, from objectionable Internet content and prohibiting the use of the Internet for criminal activity and information that could be prejudicial to global security, cautioned against the imposition of unnecessary restrictions on Internet content, given the benefits of increased information flows and trade for society. It stated that direct action by governments in the interception and monitoring of Internet content could compromise the overall security and confidence of users in the Internet. It recommended a policy of self-regulation with voluntary labelling

as an alternative to legislation. In case where legislation was absolutely necessary, the contribution recommended that the legislation be clear, precise and narrowly focused to those abuse areas requiring such legislation, as unnecessary legislation had what was termed a “chilling effect” on the Internet as a tool for business and for promoting economic development. Additionally, such legislations should not place undue burdens or costs on business and should limit the liability put on Internet service providers.

The view was held while government regulations should be created against content that infringed on trademarks or privacy, there should be cooperation between governments and self-regulation on harmful content such as obscenity. Self-regulation in Japan, for instance, had been effective in finding an effective balance between the protection of copyright and privacy, and freedom of opinion and expression.

## F. Security

Many contributors and speakers throughout the preparatory process emphasized that Internet security was a key element of building confidence and trust among users of ICTs. They argued that the Internet had the potential to enable users to access and generate a wealth of information and opportunity. Achieving the Internet’s full potential to support commercial and social relationships required an environment that promoted and ensured users’ trust and confidence and provided a stable and secure platform.

The importance of addressing the problems of international security, including cyber-terrorism and cyber-extremism was emphasized. Several of the contributions discussed the issues of Web security and cybercrime, especially in regards to children’s safety.

The Council of Europe also included a recommendation for the applicability of various international conventions such as those:

- on cybercrime;
- on prevention of terrorism;
- on protection of individuals and automatic processing of personal data;
- on action against trafficking in human beings;
- on the protection of children against sexual exploitation and sexual abuse.

The Council of Europe drew particular attention to its *Convention on the Protection of Children Against Sexual Exploitation and Sexual Abuse*, which was to be opened for signature in October 2007 for all States, both European and non-European. This convention *inter alia* requires States to criminalize conduct such as knowingly accessing child pornography on the Internet and the soliciting of children for sexual purposes. The security of the Internet and the protection of children were described as a priority for the Council of Europe, and as the central focus of its Open Forum in Rio de Janeiro.

A contribution from a university recommended a solution for protecting children on the Internet from pornography and predators. The solution would involve zoning Internet ports so that all pornography would be kept off the port normally used for Web traffic, but would rather be moved a port specifically designated for adult traffic. The proposal explained that based on the *Declaration of the Rights of the Child*, zoning of the Internet was justifiable in the defence and protection of children.

It was proposed that ICANN should accept responsibility for controlling online illegal content and for protecting children from Internet pornography. Their proposal built on

the responsibility that ICANN has for the domain name system (DNS). Specifically the proposal included using the existing structure of contracts, MOUs and policies to help countries in carrying out their regulation of pornography.

The view was held that because users were entitled to security, they could ultimately hold the state responsible for a security failure in the Internet. There were concerns that security issues in the Internet would erode the confidence that users needed in order to do business on the Internet. This was tied into a notion of trust in the Internet, though the notions of trust were broader than just security and extended to the idea that the Internet was a space of freedom that people could use with confidence.

For the business community the main role for government was to raise awareness and promote a culture of Internet security that balanced the responsibilities of users and businesses. Business remained committed to fighting cybercrime.

The point was made that national and regional efforts may not be enough to deal with problems such as email virus distribution or cybercrime. The cross-border nature of cybercrime made dealing with it especially difficult, making this an issue that requires international cooperation on best practices and international response mechanisms like the Forum of Incident and Security Teams.

Raising user awareness about Internet security was seen as a priority and as a key for developing economies in order to build secured infrastructures for people to access the Internet. As the Internet went beyond national boundaries, it was important to share know-how and the best practices on a global basis. Several contributions included the concern that people should be educated in using the Internet safely and with respect for others. There was also a concern that education should extend to other issues on Internet security such as the activities of Computer Security Incident Response Teams (CSIRTs). They provided an effective framework in this regard, as they were able to provide rapid notification of security incidents and for adopting measures against current and future threat.

## The Way Forward

There was a shared awareness that the IGF was a new model of international cooperation and could not be seen as a traditional UN-style conference. It was also pointed out that its format was in the forefront of multilateral policy-making and could set precedents for a renewed and upgraded style of multilateral conferences.

Several contributions looked at the development from the Athens meeting to Rio de Janeiro and the subsequent meetings and the point was made that there was a need for a certain vision on how the IGF would evolve and some conception of how this forum was going to develop.

The view was expressed that the Athens meeting led to grounds for the important work yet to be done towards the full implementation of the IGF mandate. The Rio de Janeiro meeting would thus represent one step ahead in the incremental IGF process, in accordance with its mandate as contained in the Tunis Agenda<sup>7</sup>.

Some wanted the IGF to develop its own structures, which would allow it to be more results-oriented. The view was expressed that, in the next three planned editions, the IGF should evolve into a results-oriented body so as to provide the international community with substantive recommendations. The IGF working methods should be designed accordingly and there was a need for reassessing the direction in which the IGF was moving. There should be clearly defined short and long-term goals within the

Tunis framework. It was also suggested benchmarking issues from one IGF to another in order be able to adjust the expectations of the public policy domain with advance of technology.

Others saw the best recipe for success in continuing the forum along the same principles; namely, by promoting the interactive exchange of ideas among all stakeholders on an equal footing. In this vision, "the IGF provides a platform for representatives of different parts of the world and different stakeholders to gather and discuss in an open, informal setting, without the pressure resulting from having to achieve negotiated outcomes, thus offering exactly the right venue and setting for increasing global understanding and cooperation".

The view was held that the IGF would grow in stature and deliver increasing value for so long as it encouraged dialogue, best practices, dynamic collaboration, community building and experience sharing. Also, the notion of multi-stakeholderism should be carried forward and improved, including the understanding on how to be adequately applied. The point was made that debates held within the IGF undoubtedly would influence the future behaviour of governments, business and civil society. In this way, the IGF played an important and influential role in guiding Internet culture in a positive direction.

There was a general understanding that it would be necessary to evaluate the effectiveness of the functioning of the IGF as well as the role, function and composition of the Advisory Group in a follow-on session early in 2008 as part of the overall assessment of the achievements of the Rio de Janeiro meeting.

## **Proceedings**

### **Proceedings**

#### **Athens Meeting, 2006**

##### **Summing-up - the IGF Secretariat**

###### **Format of the Meeting**

There were six panel sessions in an innovative format of interactive multi-stakeholder panels with questions and comments from the audience. Remote participants were given the opportunity to take part via blogs, chat rooms, email and text messaging.

One of the moderators called the panel sessions a giant experiment and a giant brainstorming. He also recalled the Secretary-General's comment that the IGF entered uncharted waters in fostering a dialogue among all stakeholders as equals. The innovative format was generally accepted and well received and some commentators called it a true breakthrough in multi-stakeholder cooperation.

A total of 36 workshops were held in parallel to the main sessions. Reports from these workshops will be made available on the IGF Web site.

###### **Setting the Scene**

The first session covered a very broad range of issues. The moderator himself recalled that 10 years a similar gathering was mainly attended by engineers and academics from North America and Europe, while this meeting had a much broader participations, both in terms of geography as well as stakeholder groups. One panellist made the remarks that four years ago many people assembled in the meeting room would not have spoken to one another.

The discussion in the first session was very broad and touched on all of the topics that would be covered later in the week. The importance of the multi-stakeholder model was emphasized by many speakers.

Several speakers noted that IGF is not the beginning of this process but the middle of, much has already been achieved in the WSIS process and the IGF must build on that. It was remarked that all stakeholders have roles to play in the IGF. We need to share experiences and perspectives. We need to share best practices.

Many of the speakers remarked on the fact that technology moves at a pace that is difficult for policy to match. Those working in policy areas should be as creative as those who created the technology. There were also many comments that expressed the hope that the IGF would not be a sequence of five meetings held in beautiful locations, but a process where the meetings would serve as checkpoint in that process.

Perhaps most importantly the theme of development was emphasized with several speakers asking what that IGF could do for the billions who do not yet have access.

The main message of this Session was that no single stakeholder could do it alone and therefore we all needed to work on IG issue in development together.

To conclude it was felt that for the IGF to have value we would have to leave Athens with a clear view of how to move forward.

## Openness

The Openness session focused on free flow of information and freedom information on the one hand and access to information and knowledge on the other. Much of the discussion was devoted to finding the right balance:

- the balance between freedom of expression and responsible use of this freedom; and
- the balance between protecting copyright and access to knowledge.

Some panellists pointed out that the two themes are linked and that for developing countries issues such as better access to the Internet and access to knowledge is more of a priority. One panellist called the possibilities offered by the Internet to create content “a new form of free speech”. He referred to the creative use made of the new medium by young people which under today’s legislation can be illegal.

While all panellists emphasized the importance of freedom of expression, two of them reminded the audience that this freedom is not absolute and that freedom of speech is not without limitations and that the Internet is not above the law. Hate speech, for example, is illegal in both the on- and off-line world.

It was generally felt that the Internet has greatly contributed to the spread of free flow of information and freedom of expression. However, it has also created an inbuilt institutional apprehension or fear of new popular empowerment and a curb on freedom of expression. It was remarked that freedom of expression can be under threat in all countries.

This Session addressed different types of freedom, such as freedom from government surveillance or free access and their link to human, social and economic rights.

The Session turned to the role of the private sector and looked at the relationship between market laws and market forces and human rights. In this context, it looked at the responsibility of the private sector. The question was asked whether major corporations should use their bargaining power to promote freedom of expression. It was pointed out that for some companies doing business in a country signified an engagement or bringing persuasion in the form of economic development rather than trying to use some form of market power in order to negotiate and bring about change.

Some pointed out that systems could be used to encroach on rights and repress freedom of expression. Others highlighted that many systems are multipurpose and the same systems can be used for positive purposes, such as the protection of children and, on the whole, the positive aspects of increasing Internet access outweighed the negative ones. For instance, the use of the Internet increases transparency and this is a value in itself.

The Session also looked at the relationship between national regulation on freedom of expression and the borderless Internet.

As its second main theme, the Session examined the balance between openness and protecting copyrights, the balance between the citizen’s right to information and rights of

the copyright holders.

There was a recognition of different treatment for materials created by using public finance and those created with private financing and of different business models. Some business models require copyright fee in order to continue production.

Some speakers called on governments to enable free access of information on the Internet. They drew a parallel to libraries: governments bought books for citizen to allow them to gain access to information and knowledge. Should governments do the same with the Internet and remunerate the creators and owners of content?

The Session discussed various questions with regard to the effect of businesses protecting their copyrights and battling piracy. Among these questions were the following: Should copyright protection take into account different cultural traditions, given oral cultures and different notions of knowledge? Was there a need to find business models that work with open information, software and standards?

## Security

There was a generally held view that the growing significance of the Internet in economic and social activities raised continuing and complex security issues. One of the key issues here is the way in which responses to growing security threats are dependent on the implementation of processes of *authentication and identification*.

Such processes can only be effective where there is a trusted third party that can guarantee both authentication and identification. This raised a debate about who could effectively act as a trusted third party, the state or the private sector. There was also a debate as to whether a 'bottom-up' model centred on the role of users was more effective than a 'top down' model driven by formal government actions.

It was widely accepted that the perpetrators of security breaches are 'intelligent adversaries' constantly adapting their behaviour to advances in security technologies and processes. There was a shared view that insufficient attention was being given to proactive and long term actions to reduce security threats. There was a broad convergence of views on the need for co-operation at an international level. However, it was pointed out that one of the main obstacles to finding solutions was the lack of agreement at a very detailed level of what a security threat is and who are the key stakeholders.

There was a widely held view that the best approach to resolving security issues is based on 'best practises' and multi-stakeholder co-operation in an international context. However, there was concern about the degree to which information was shared in a timely manner and in a common format (particularly with developing countries). At the same time concern was expressed about the extent to which information and exchange was being achieved in a fully inclusive manner. The role of users and the opportunity to exploit the 'intelligent edge of the network' was highlighted by many speakers.

For some, the role of users had been undervalued in the implementation of enhanced security measures. Not only were better educational measures required -- user choice should be respected more clearly. Thus for example, the setting of clear expectations and principles, within a public policy framework, could enhance the power of consumers to address security measures.

It was generally felt that security is a multi-faceted issue and therefore it was necessary to involve co-ordination between different policy communities and actors. For some this

co-ordination needs to include a clear legal framework within which to operate; one example cited was the Council of Europe's Convention on Cyber crime. However others raised the issue of jurisdiction and the particular need for inter-governmental co-ordination.

There was a debate as to whether market based solutions, which stimulate innovation, or a public goods model would deliver better security measures across the Internet. For some, the public goods approach offered the opportunity for the widespread adoption of best practice across all countries. A counter view was that innovative solutions were required at that these could only be provided by market based activities. There was a wide ranging, but inconclusive debate about the role of open standards in shaping security solutions. The debate focused on the appropriateness of the open standards in the security arena. One of the key questions here was the extent to which free and open source software/standards would enhance the level of security for all users compared to market based licences for proprietary technology.

There was a widely shared view that the IGF could play a significant and positive role in fostering greater debate and action with regard to security on the Internet. The role of the IGF in collating best practices, ensuring the widespread dissemination of information and breaking down 'silo' approaches to the problem were all highlighted. The ability of the IGF to support the development of a common language in the policy debate was seen as very significant.

## Diversity

The panellists' views on diversity in the Internet varied, but there was strong agreement that the multilingualism is a driving requirement for diversity in the Internet. One participant said: like biodiversity is to nature, diversity on the Internet must reflect, and does reflect, the whole spectrum of human endeavor, both past and future. The event was not about the 'digital divide', but rather about the 'linguistic divide'.

There was also recognition that diversity extended beyond linguistic diversity to cover populations challenged by lack of literacy in the dominating language or by disability. Audiovisual communication was one of the other forms of communication mentioned in this context. There was also a discussion of media for people with visual and other disabilities. Another theme that was mentioned involved use of the Internet to relieve and someday eradicate illiteracy. The discussion also touched upon the value of audiovisual applications available on the Net especially in communities where cultures were not recorded in a written language.

The meeting guided the participants through a very complex set of distinctions in subjects covered by diversity. It was generally recognized that the WSIS outcome had put the issue of multilingualism on the agenda of international cooperation: there was a right to a multilingual Internet that preserved and enabled the diversity of cultures, including indigenous cultures. A number of panelists highlighted the many success stories about diversity, while also drawing attention to areas where improvements were needed in that regard.

A representative from UNESCO drew attention to the Universal Declaration on Cultural Diversity mentioning that its purpose was to support the expressions of culture and identity through the diversity of languages.

Multilingual and local content were widely seen as necessary to bring all people into the Internet. When talking about local content a distinction was made between international

content that is translated for local languages and content developed locally. There are issues with both:

- For translated content, there are royalty or copyright fees as well as import fees.
- For truly local content there are sometimes difficulties with finding the way to express that content. There is also a need to protect that content.

There was also recognition of the importance of content that supports those who are not literate and those who are not illiterate in the dominant language.

Participants raised the issue of software, pointing out that market forces were sometimes not strong enough to provide countries with software in the languages they required.

During the discussion on internationalized domain names (IDNs), it was generally felt that internationalizing these domain names without endangering the stability and security of the Internet remained one of the biggest challenges. Part of the discussion related to the technical details of IDNs. The discussion included: an explanation of unicode character sets and how language communities need to be involved in making decisions about the code-points. The Session also looked at the work being done in the technical bodies on improving IDN and on testing IDN in the root zone file.

There was general understanding that the support of IDNs involved more than the DNS. Noted as a positive development by participants was that all browsers now supported internationalized domain names.

There was also a discussion on the possible follow-up to the meeting.

- One suggestion is to establish multistakeholder cooperation between the various institutions dealing with these issues, such as UNESCO, ITU, ICANN and ISOC/IETF, to come up with solutions
- Another suggestion related to support of multilingual content that is not commercially viable. Many techniques were suggested and may be explored in initiatives emerging from the Athens meeting.

## Access

The debate brought into focus the universal acceptance that increasing access remains one of the great challenges facing the Internet community. The nature of digital divide was seen as being multifaceted and a focal point for public policy responses. A wider range of policy initiatives were discussed but a strong theme was that the introduction of competition and the removal of blocks to competition were of fundamental importance. It was recognized that Africa faced particularly complex problems with regard to access to ICT resources.

It was also stressed by many speakers that the issue of access was not solved by a specific and narrow focus on telecommunications sector reform. However, it was recognised that telecommunications sector reform was a necessary condition to establish the appropriate framework for increasing access. Key issues highlighted in the debate over telecommunications sector reform included:

- Independence and transparency;

- Removal of monopolies and the licensing of new players;
- Competition as a key issue (and what are the barriers to competition);
- The need to establish interconnection regimes that reinforce the competitive market;
- The need to develop innovative policy measures such as universal access regimes (through for example reverse auctions) to harness market based solutions to structural issues.

For some the emphasis was not on the detail of regulatory frameworks but on the need to establish market structures which would stimulate investment, especially from local capital and the construction of local solutions, such as peer-to-peer interconnection arrangements through local Internet Exchange Points (IXPs). It was also observed that increased local based activity would increase reliability and integrity of the network; several examples from Kenya and Senegal were quoted how local IXPs and local routing enhanced Internet connectivity, access and reliability.

The comment was made that it was important not to simply import regulatory frameworks from OECD countries but to focus on frameworks that were tailored to local conditions. Hence, it was stressed the need in many countries is not local loop unbundling but the building of local loops and ensuring adequate power supplies.

The issue of interoperability and adaptability was debated. Likewise it was widely recognized that open standards are critical to underpinning greater access for all communities. It was stressed that open standards are, for example, critical in allowing those with disabilities to reformat material into more accessible format.

The role of enhanced capacity building was discussed extensively. In the debate, the issue was not just focused on the needs of policy makers but in enhancing the level of ICT skills within a country. The debate reinforced the key messages of the Tunis Agenda. For some, the investment in ICT capacity building within an information society is tantamount to the investment in basic training and education; without such an investment the issues of access can never be addressed.

There was a broad convergence of views that the most appropriate level to address issues of access was the national level, as most policy development and implementation is at the national level. This debate focused on the role of governments as the key stakeholders in ensuring an enabling environment for greater access. The debate highlighted the role of governments as the single largest customers in any one country and the stakeholders with the ability to link across many policy debates, such as the provision of other infrastructure services like electricity or access to other government services (for example, healthcare and education). Linking policy debates and creating enabling environments was seen as critical for increasing access to the Internet.

There was some discussion on the role of new emerging wireless technologies in providing increased access. It was widely expected that wireless technologies could change the access market landscape. But for this change in the landscape to become a reality some of the appropriate spectrum regulatory and wireless technology standards issues need to be addressed.

Many speakers raised the topic of rural access and the problems associated with it. It was emphasized that there is no 'one size fits all' solution but knowing the 'best practice' cases would help increasing access in rural areas across the world. The debate also

focused on the role of government policies in facilitating increasing access in rural areas, for example encouraging investment or the government playing a role of a key enabler.

The speakers also emphasized the issue of affordability from two perspectives: end user and carriers' perspective. Some participants noted the significant decreases in costs of international connectivity. Others observed continuing high costs on some routes.

The significance of the IGF as an international initiative to put on the table the multi-stakeholder debates surrounding issues of access and the digital divide was recognized. The ability of the IGF to exchange best practices in promotion of access between various stakeholders should help address the issues of inequalities of access.

## Emerging Issues

The panel format included video link-ups with remote participants at locations in Chile, Mexico and Peru.

It was apparent that to young people the Internet is a way of life. One of the concerns that ran through the entire session was the sense of a growing Digital Divide. Since youth in developing countries have to pay many times more for access than their peers in developed countries, they are not able to make the Internet part of their lives in the same way that those on the panel and in developed world. This is seen as one of the causes of the growing divide.

Access, according to several of the panelists should be a fundamental human right because without access the young cannot grow up to truly live in the modern world. There were also participants who disagreed with the statement that access was a right and who argued that access was something that needed to be gained through individual effort. One speaker stressed the point that: "... we can't take the passive voice here. It's something that we have to do, not something that we can be given."

Many participants talked about developing the skills to use the network to create local content and local advantage. The ability to use the Internet and the ability to create content was seen by many participants as being essential for freedom of expression and a new category of e-citizenship.

Another issue discussed by several participants involved the inclusion of youth in Internet governance, especially in areas dealing with the safety of the Internet for young people. For example, youth have formed grass roots organizations in Africa to campaign for safer use of the Internet. The hope was that the IGF would enable youth to get more involved.

Many of the participants took up the theme of what they called 'access to access' as the most important and immediate need. By 'access to access' the participants meant that the problem is not about technical details, but about economy and capacity. It was the opinion of many participants that 'access to access' should be the driving theme for the Rio meeting.

One hopeful note was sounded by one of the participants: seeing how quickly the Internet spread to one billion people there is hope that it will spread to the remaining five billion.

Some of the participants pointed to the need for continuing capacity building both in the

use of the Internet and in Internet governance. There was an emphasis on the need for financing in order to make capacity building a real possibility. But several noted that it takes more than money, it takes developing a program that allows those who receive the education to have an opportunity to use the education and to take it further.

Several participants also spoke about a gender divide within the digital divide. It was mentioned that frequently access in the developing world had a gender bias insofar as efforts were oriented more towards the boys than girls. This was seen by some participants as an additional problem in that it makes the gender divide worse in places where the digital divide was being alleviated.

While there were many participants who called for the need for more money for development, there were also participants who argued that money was not the main issue, but that there needed to be a symbiotic relationship with business to allow for innovation. The lack of innovation in some developing regions was seen by some as the reason for high access costs. The remedy, for these participants, was for markets to be more open.

Several participants spoke of a need to make intellectual property rights more flexible to allow innovations to continue. Another theme that was discussed concerned the change in education opportunity that the Internet brings. A number of panelists spoke about the way the Internet enables citizens to become educated and aware of some of the conditions that affected their lives. This was seen as a major contribution to strengthening democracy.

## Excerpts from Transcripts of the 1<sup>st</sup> IGF, Athens, Greece, October 30 – November 2

### 1. Opening Session

#### Chair:

- **Michalis Liapis**, Minister of Transport & Communications, Greece
- **Nitin Desai**, Special Adviser to the UN Secretary General for Internet Governance

#### Welcome Message

- **Kofi Annan**, UN Secretary General (by Video)

#### Speakers:

- **Konstantinos Karamanlis**, Prime Minister of Greece
- **Yoshio Utsumi**, Secretary-General, International Telecommunication Union
- **Tarek Kamel**, Minister of Communications & ICT, Egypt
- **Viviane Reding**, Commissioner for Information Society & the Media, European Commission

- **Guy Sebban**, Secretary-General, International Chamber of Commerce
- **Natasha Primo**, Executive Director, Women's Net
- **Vint Cerf, Chair of the ICANN Board**, Vice President of Google
- **Bob Kahn**, CEO and President of the Corporation for National Research Initiatives (CNRI)

### **Nitin Desai, Special Adviser to the UN Secretary General for Internet Governance**

It's truly appropriate that we should be meeting here in Athens, a city associated with the very idea of open democracy, particularly in this hosting of the first open house for the citizens of the global Internet for this forum, which brings together stakeholders who often meet separately, but seldom together, a forum which, hopefully, will be as innovative as the Internet, and be a harbinger of a new type of multilateralism.

### **Message from Kofi Annan, United Nations Secretary General**

The forum is an important new vehicle for multistakeholder policy dialogue. It sustains the momentum generated by the two-phase World Summit on the Information Society. And it represents further progress in our efforts to extend the benefits of information and communication technology to all the world's people. Indeed, I am very encouraged that during the preparatory process, all stakeholders acknowledge that the Internet can play a powerful role in helping developing countries to advance their economic and social well-being, and agreed on the developmental dimension as an overarching priority of the forum. Today, the forum enters uncharted waters. Its mandate, decided upon at the highest political level, calls on it to serve not as a convener of governments but of all stakeholders. The forum will thus have to develop procedures and practices for cultivating meaningful cooperation among these disparate partners. While this will be a challenge, the Internet lends itself particularly well to this search for new forms of global collaboration. With more than one billion users worldwide and still growing dramatically, the Internet has outgrown its origins as a network run by and for computer specialists. Indeed, it has become too important, for almost every country's economy and administration, for governments not to take an interest. The challenge, therefore, is to bring two cultures together: The non-governmental Internet community, with its tradition of informal, bottom-up decision-making, and the more formal, structured world of governments and intergovernmental organizations. The Internet governance Forum is well placed to contribute to that effort by fostering dialogue, and by giving voice to a wide range of views, including developing-country individuals and institutions involved in Internet governance. Its emphasis will be on voluntary cooperation, not legal compulsion. And while the forum is not designed to take decisions, it can identify issues that need to be tackled through formal intergovernmental processes. I hope this inaugural meeting will launch a process of mutual learning, generate new ideas, and perhaps even see the emergence of some new partnerships.

### **Konstantin Karamanlis, Prime Minister of Greece**

Today, we inaugurate a process in order to meet one of the main challenges of our time, the future form of the Internet and its capacity to provide increasing opportunities for an inclusive, global community, with no exclusions, opportunities which were unimaginable a few years ago. This forum, through a multistakeholder approach, unites under the same goal and vision governments, intergovernmental organizations, the private sector, and, of course, civil society. In this way, it institutionalizes a successful

practice already established during the preparatory process. Taking into consideration our shared interest in the ongoing robustness and dynamism of the Internet, this forum should be considered as an opportunity for a multistakeholder policy dialogue. Its conclusions should ideally help identify and build consensus. They should also inspire us with a shared vision and a common understanding of the way forward. The IGF provides an open and transparent platform for establishing dialogue among all stakeholders. It can facilitate the exchange of ideas and examples of best practices concerning Internet governance. Through increased interaction among stakeholders, the free flow of ideas may lead to an independent and reflective treatment of the more important issues. At the same time, the diversity of participants, combined with the openness of this forum, offer an opportunity for the serious engagement of all stakeholders. We all acknowledge that Internet, which is a central element of the infrastructure of the information society, has evolved, from a research and academic facility, it has become a global means of communication available to everyone. Nowadays, ICT makes possible for a vastly large population to join in, to share, and expand the base of human knowledge. It contributes to the further growth in every aspect of human endeavor, especially in education, health, and science. The adoption of ICT by enterprises plays a fundamental role in growth, while well-implemented investments in ICT lead to an increased -- to increased trade opportunities and more and better employment. Openness, simplicity, freedom in accessing and receiving information, along with its distributed nature, are among the main principles the Internet's success has been based on. These principles have enabled the Internet to grow rapidly and to adapt to new demands and opportunities. The Internet governance body should encompass these principles in order to respond appropriately to the rapidly changing operational environment of the Internet. Given its global role today, the Internet must continue to provide the means of supporting open, accessible, and free exchange of information, ideas, and opinions around the world. We must commit ourselves to stability, security, and effective governance of the Internet as a global facility, and this calls for the participation of all stakeholders, from both the developed and developing countries, within, of course, their respective roles and responsibilities. After all, the Internet governance includes more than Internet naming and addressing. It includes significant public policy issues, the management of critical Internet resources, security, safety, as well as other social and economic issues. The approach we follow should be inclusive and responsive to challenges and should continue to promote an enabling environment for innovations, competition, and investments. To ensure the operational character of the Internet as a global network, the Internet governance model should not only build on existing structures, but also on cutting-edge innovations. It should capitalize on well-known and successful practices and frameworks, putting particular emphasis on new ideas and on the complementarities between parties involved on a democratic, transparent, and multilateral process. We need close cooperation among all the involved and interested parties, and this should include the development of globally applicable principles on public policy issues associated with the coordination and management of critical resources. The scope and the policy of this meeting is to ensure that the Internet will be an effective tool to promote knowledge, to promote peace, security and stability. The Internet can and should enhance democracy, social cohesion, good governance, and the rule of law, both at the national and the international level. It is our challenging task to ensure that it will respond to the particular needs of those widely described as the digitally homeless. Our attention should turn eventually to the more vulnerable groups of society, and this includes migrants, refugees, the unemployed, underprivileged people, the young, senior citizens, and persons with special needs. In this first IGF meeting, we expect to set the scene and establish a solid and comprehensive framework and network and focus on issues such

as affordability and availability of the Internet; interconnection costs and security; management of critical resources and technology transfer; multilingualism and local development of software; capacity-building and participation of multistakeholders from developing countries. In this context of letting the Internet evolve based on its positive attributes of being open, transparent, and nonfragmented, the IGF aims at addressing ways to promote the free flow of information which should allow the ability and include the ability to communicate across linguistic boundaries and ensure the respect of freedom of expression.

### **Michalis Liapis, Minister of Transport and Communication of Greece**

When in Tunis we expressed our wish to host the inaugural meeting of this new forum, we did so in full awareness of the huge scope and the importance of what we were about to do. It was a challenge, a challenge which we embraced. We embraced it because we believed in the vision of a global society where the Internet would build bridges between countries, cultures, people, and would contribute to peace and the advance of humanity. So we are particularly pleased that Greece, the cradle of democracy, is hosting the first meeting on Internet governance, which is far and away the most democratic means of communication in the modern world. This is -- this forum is following a multistakeholder, open process, a NASCENT process which should not be inspired by dogmas and stereotypes. On the contrary, we believe that it has to be seen as a platform, a platform to promote all forms of innovatory ideas and free-thinking. It's, therefore, a unique opportunity to have a creative dialogue which will give rise to policy, a dialogue which will state before the whole world that the IGF is worthy of its founding vision. The Internet is the start of a vast overhaul, a reshaping of our society, which it will take several decades to complete. It is going to be the most important tool in intellectual development. It will affect all of us, all of us in the way in which we run our businesses, right through to the way in which we live our daily lives. The drop in the cost of Internet access will follow on from global diffusion of I.T. and also diffusion of knowledge in the future as well that of wisdom. Those people who are not familiar with using the Internet will be left on the sidelines of society, like someone who has grown up in the jungle and then tries to adapt to life in the town. Thus, the IGF must be a forum in which we can shape our common global vision for the development and growth of the Internet. But we also have to shape principles, rules, and democratic processes which will provide an orderly outcome to -- an orderly form to its outcome. To facilitate access to knowledge, to provide citizens with the necessary skills in order to have freedom of expression and also free movement of ideas. It is our standing aim to bring about ongoing economic development and social progress for our people. This can be achieved by establishing a correct legal, political, and regulatory framework which will guarantee the respect of the Internet's founding principles. What we need to do, in particular, is to constantly strive to develop action to protect children against exploitation, protect their rights in their links with the Internet in order to empower also young people as basic players in forming a participatory civil society. But we also have to extend opportunities to involve them in electronic-style processes. Our political commitment has to be to build a citizen-focused information society with no social exclusion and oriented towards development. It's also important that we should apply technology cautiously. We have always to have at the forefront of our minds the human factor. We shouldn't allow a rupture in normal communication between human beings. We shouldn't allow the Internet to lead to their physical isolation. And that's why governments have to play a leading role in developing a long-term strategy with productive investment to ensure that education, the development of research and technology, are at the forefront, that we can strike a balance between the various different groups, and that we can boost competitive prospects so that we can ensure the

security of the infrastructure and the Internet. The remit from Tunis was that the IGF should contribute to achieving the vision of an anthropocentric, participatory society, focused on growth and development.

**Yoshio Utsumi, Secretary General, International Telecommunication Union**

What better place to talk of advancing good governance of the Internet than here in Greece, the birthplace of democracy. Ever since then, Greece has played a very important role in advancing our core values of dialogue, human rights, democracy, and the rule of law. Greece is also the birthplace of Socrates, a Greek philosopher who is now widely credited as having been the wisest man in all of Greece. He was born in Athens, where he spent most of his time in enthusiastic pursuit of wisdom. Socrates had many devoted followers such as Plato, whose subsequent teachings are seen as a great contribution to modern-day thinking. But Socrates also had many angry detractors. Due to his then controversial challenges to conventional wisdom and popular beliefs, opinions about him were widely polarized, drawing both very high praise and very severe criticism. Sometimes it is dangerous to be ahead of your times. Socrates fell into grave disrepute with the public powers at that time, and he was arrested and accused of various crimes. He was sentenced to die by drinking poison, or else to leave the country as an exile. He felt no fear of death, and at the age of 70, he drank hemlock and died. I have had the privilege of serving as secretary-general of the international telecommunication union since 1998. Over our 141 years of history, the ITU has often had to adapt to dramatic changes in the global communications environment, and I feel very lucky to have served during this particular period which has witnessed a dramatic growth and impact of the Internet and mobile communications. I am also proud that the ITU has been the instigator and successful organizer of the World Summit on the Information Society. I would like today, in the spirit of Socrates, challenge beliefs some of you have as to how the Internet should be governed. The IGF was created because there remains a continued lack of consensus on Internet governance. Yes, there is a camp who will claim that for certain issues there is no need to further discuss because things are working quite well and there is no need to change. But there is another camp that disagrees and says that this is just an attempt to avoid debate by claiming there are no problems. To me, it is obvious that if these issues were really settled, then there would be no reason to create an IGF. You would not be here, and there would be nothing to discuss. Let us not claim falsely that we know there are no problems. Let us welcome open debate in the great spirit Athenian democracy. The underlying theme of this first IGF meeting is supposed to be a focus on development. However, I do not share the perspective of those who argue that Internet governance is just a developing-country problem. I disagree, because the basis of this perspective is that with just more capacity building, then developing countries will come around to a certain enlightened point of view. We have heard this often, and it borders on arrogance. Many of the critics of the current system of Internet governance are not from developing countries, and they are extremely well-informed. Many of them are tired of hearing "you just don't understand." Many do fully understand, particularly after WSIS. Many also understand that no matter what technical experts argue is the best system, or no matter what self-serving justifications are made that this is the only possible way to do things, there are no such systems or technologies that can eternally claim they are best. And many know, no matter what is discussed or decided here, in the end it will be the global marketplace that will define a final outcome. What are the elements of this marketplace? Of course, there are issues common to all markets. Does it match what users want? What is the price, availability, and convenience? Does it meet local priorities and needs? Then there is the issue that relates in particular to the Internet: The ability to rapidly innovate at the edge of the network. And it is here, most of all, that I see the current centralized

system as weak. What is needed is more diversity and a recognition of the principle of user's true needs. In order to respond to the need of the users, what is lacking is a viewpoint that matters should be handled at a level that is closer to the user and that any central role should have only a subsidiary function, performing only those tasks which cannot be handled more effectively at a more immediate or local level. Whenever there are discussions of governance, it is natural that there are discussions on the role of governments. Replicating a debate that took place in the 1920s with radio, there has been much debate on the role of government in the Internet. It is interesting that this debate has shifted significantly in the last few years. In the 1990s, a common question of many of you present here was, "Should the Internet be regulated?" Now, only ten years later, to have even asked such a question seems remarkably naive, particularly when we see the extent of Internet-related legislation enacted daily around the world. The reason for this is that the Internet has now become a central part of everyday life and cannot be treated differently from the rest of society and the economy. This means, for better or for worse, that the Internet will, in due course, not be governed or regulated in a way that is fundamentally different from the way that other things are governed. And this is why the future of Internet governance is inevitably local rather than global. It is because the best approach is different for each society and economy. During your discussions, I hope that you keep an open mind. There are rarely absolute truths in human endeavors. Today's common sense may become tomorrow's heresy. And as demonstrated by Socrates, history has also demonstrated that today's heretical views may be tomorrow's widely accepted wisdom.

#### **Tarek Kamel, Minister of Communications and ICT, Egypt**

Today, the global Internet community is clearly reassured that this newly born forum comes to respond to and materialize the need for a stronger international dialogue and participation and more collaborative cooperation on Internet governance. Ladies and gentlemen, the indisputable imprint of the Internet on our lives should always remind us of the long journey that the early Internet community has passed through to reach this point. It is with no doubt that this Internet has developed to what it is today in a bottom-up approach, where its evolution is historically attributed to technical and research pioneers such as Mr. Vint Cerf and Mr. Bob Kahn. I have personally witnessed and benefited as a professional among many others from a strong collaboration among the professional community and the industry as well as the support of organizations such as ISOC, which successfully promoted the Internet and helped it to spread freely worldwide in a way that has really materializing the concept of Internet for all. Despite its young age, the Internet has turned into a robust mechanism transforming all walks of our lives: The way we learn, work, communicate and do business. Its impact is not confined upon individuals only but it is extended to be a key factor in the world economy as well. Internet is, all the more, presenting itself as a prerequisite for the global Information Society, to an extent that it has become one of the main pillars of the socioeconomic development at large. With this increasing reliance on the Internet as a revolutionary resource for growth and development of humanity, it became more and more necessary to ensure the stability, sustainability, and security of this global medium through more international cooperation and coordination. This has led to the emergence of the Internet governance theme strongly on the international arena and within the global Internet public policy dialogue. Internet governance has been an ever broadening subject with the intertwined technical and policy dimensions where it is hard to draw the line. It also implies broader and diversified issues, such as Spam, Internet exchange point, international interconnection costs and multilingualism, as well as security frauds, data protection, consumer protection and privacy to name only a few. It is therefore essential for the Internet to be an area of cooperation, inclusion, innovation and

integration. It is our mission to make maximum use of the IGF to fulfill this concept and gain from all opportunities for the benefit of the global Internet community, while allowing the Internet, as promoted by the industry to grow its growth -- to continue its growth as a central element of the global Information Society infrastructure. Although the Internet is developing and spreading in an unforeseen pace, yet its uptake in developing societies is still relatively slow and lagging behind, and is thus contributing to a widening ICT gap and increasing Digital Divide. Let us not forget that access is only available to one billion users out of the global world population exceeding six billion. Most developing nations still face the same set of barriers that limit Internet access and penetration in the countries and negatively affect the development of their economies. Those barriers, usually include issues such as high costs of bandwidth, scarcity of local content, and availability of suitable infrastructure, in addition of lack of human resource development and professional training programs. Other barriers to Internet penetration which are not confined to developing society, but also extend to some developed areas, include the absence of a truly diverse and inclusive multilingual Internet, capable of addressing all user needs irrespective of their language or cultural identity. The language barrier comes as a major hindrance that faces national governments in their endeavors to increase Internet uptake and promote online services. It is therefore fair to say that increasing Internet outreach and promoting national e-services and e-Government initiatives can only be accomplished if people across the world are enabled to access and use the Internet by overcoming all those obstacles. It is imperative for the international community to realize that unless all those problems are tackled and solved through cooperation among all actors, this powerful instrument will not be able to flourish and expand as desired. Internet communities of the developing world, more than others, need to multiply their efforts and actively participate to the Internet governance process in order to increase their stake and overcome the existing divide. This can only be achieved if cooperation and participation among all actors is ensured, especially when empowered by the support of the international community through the right human resource development programs. The process of the African regional Internet registry, AfriNIC, is a great example that illustrates the power of multistakeholder cooperation in Internet governance issues, especially for developing regions and emerging markets. AfriNIC is a success that couldn't have been achieved without the strong collaboration among the various stakeholders, government, private sector and civil societies of the different African countries and without the continued support of the international Internet community, especially from the regional Internet registries and from the ICANN. recall the words expressed by U.N. secretary-general secretary-general during his speech at the globe forum on Internet governance in March 2004 that, "In managing, promoting and protecting the Internet presence in our lives, we need to be no less creative than those who invented it."

### **Vivian Reding, Commissioner for Information Society and the Media, European Commission**

The IGF will contribute to the democracy of the Internet and to the virtues of governments. So will dialogue, cooperation, and respect. And I therefore am a strong supporter of the Internet governance Forum and the open, global, and multistakeholder approach it represents. Now, the IGF will be one important pillar of the new model of enhanced cooperation between all stakeholders agreed upon in Tunis last year. It does not replace negotiations between governments on the enhanced cooperation model, but it is complementary as a process. And I expect that it will generate a lot of ideas, a lot of solution, and these ideas and solutions I intend to introduce them into the talks between governments. And in this respect, I have, for instance, seen a very promising contribution on an improved model for DNS management. This is a new step forward on

an international consensus on governance issues, based, of course, on the principles of freedom, multistakeholder dialogue, accountable private sector management. Firstly, the need to respect fundamental human rights and the need to protect freedom of expression. In just a few years, the Internet has turned into one of the most dynamic communication tools the world has ever seen. The flow of information that it facilitates strengthens democratic processes, stimulates economic growth, allows for cross-fertilizing exchanges of knowledge. But, too often, this very freedom is under attack from those that do not value freedom of expression or disregard the economic and social benefits of allowing a free flow of information within and across borders. Freedom is sometimes seen as a threat to those who do not value human rights or want to impose their vision of the world or their religious belief. But the key element for the European Commission is, therefore, to keep the Internet as open and as censorship-free zone, where all the world's citizens can communicate freely with each other without needing to seek the permission of anyone else, not least, their governments, in line with internationally recognized fundamental rights. Secondly, we should acknowledge the benefits of Internet to development policies. Tunis has taught us a lot in this respect, because the benefits of the Internet must be shared by all world citizens, not just those in northern Europe, in northern America, and southeast Asia. In other words, the digital divide needs to be bridged. Much of this will have to do with improving access to the necessary hardware, software, connectivity in developing countries, because Internet is for all and has to be for all. And this is why the European Union, which is already the largest world donor of development aid, will continue to work on bridging this digital divide. And I believe that mobile telephony and satellite communications offer very promising solutions in that respect. But bridging the digital divide is not just a matter of screens and cables to all parts of the world. Important, they are. It is equally important to recognize the extent and the value of cultural diversity within the global village created by the Internet. And that is why multilingualism is a theme that very often, and rightly so, comes up in this context. Because by its very nature, it promotes culturally and linguistically diverse content on the Internet. Take for instance the IDNs, which are sometimes wrongly seen as a technical issue. Notwithstanding the important consideration on stability that needs to be addressed, there is, above all, a legitimate political imperative for the Internet to offer different language scripts. Users would want to be able to use, for instance, China's ideograms, Arabic scripts. And there is a real danger that prolonged delay in the introduction of IDNs could lead to a fragmentation of the Internet's name space. At the same time, I believe we should also think about multilingualism in Internet governance mechanisms themselves. The Internet that we know today and that we value very much has its roots in the developed world, particularly in Europe and in United States. And English has been and will continue to be a very useful lingua franca, most of all for worldwide communities. But today the Internet has outgrown the original academic network. Today, the people's Internet moves towards Web point zero, in which every Web citizen will become a creator of Web content. And those individuals thus have an increasing interest in participating in the debate over how the Internet can and should be run, including security issues and the participation of citizens and businesses in a more efficient chain of responsibility.

### **Guy Sebban, Secretary General of the International Chamber of Commerce**

The world business organization, I mean ICC, represents companies of all sizes in all sectors. We have recently launched a new initiative called BASIS, business action to support information society. With this initiative, global business intends to contribute its expertise and its perspective on developing the information society to reach its full potential. Our vision is of an inclusive, people-centered information society, one where people can express themselves freely, where people everywhere are empowered by the

huge amount of information and knowledge made available, and by their ability to use it for shaping the future. Thanks to entrepreneurship, investment, and a drive to innovate, business has played an important pioneering role in the Internet's development thus far. The major contribution will continue through the productive resources that companies around the world provide to the information society and through working with multistakeholder partners. We believe the calls to increase people's ability to participate in the Internet's development are really critical. We welcome the opportunity provided by the IGF to join other stakeholders on an equal footing, to share our respective expertise, and to benefit from a valuable exchange. Building on the foundation of the World Summit on the Information Society, the IGF represents an important advance. Business experts from many countries are here to share, to listen, and to learn, alongside the other stakeholder groups, enriching the process. In order to get involved, people need education, information, and training. Business believes that human and institutional capacity-building are the cornerstones of success in getting more people to participate in meaningful, productive deliberations and decision-making bodies. This effort of raising people's skill levels, understanding, and participation can only be effective if all stakeholders have input and offer their expertise. There are two key questions: How could the flow of information and the access to knowledge that is available to people be increased in a cost-effective manner and in a secure environment? And how could more and more people with different cultures and different language skills take advantage of such an evolution? The success of the Internet is largely due to its ability to link people and empower them with more information and knowledge than ever imagined. This IGF stands to succeed on the same grounds. As participants deepen their understanding of key issues, identify new ways of cooperating with others, and go on to use what they have learned to make a difference at home.

**Natasha Primo, Executive Director, Women's Net**

It is my interest to challenge the IGF to respond valiantly to the questions on how to advance the human rights and development agenda and make significant impact on narrowing the digital divide for women, for the differently abled, for developing countries, and for the poor generally. There are five challenges facing the IGF. One, extending the human rights culture within the information society. Two, making Internet access universal and affordable. Three, building capacity for developing country participation. Four, building an inclusive process in space that capitalizes on the knowledge and participation of women. And, five, talk about the IGF as a process on the road to Rio.

- Freedom of expression should be protected from infringement by government and nonstate actors. The Internet is a medium for both public and private exchanges of views and information across a variety of frontiers. Individuals must be able to express opinions and ideas and share information freely when using the Internet. In the post-WSIS space, there's an urgent need to strengthen the laws of human rights enforcement in the information society, to enhance human rights in national legislation and practices, to strengthen education and awareness on rights-based development, and to transform human rights standards into ICT policy issues.
- Ensuring Internet access is universal and affordable. Bandwidth is the lifeblood of the world's knowledge economy, but it's the scarcest where it is most needed, in developing countries, which require low-cost communications to accelerate their socioeconomic development. Few schools, libraries, universities, and research centers in Africa have any Internet access. For those who can afford it, it costs thousands of times higher than their counterparts in the developed world. And even Africa's most

well-endowed centers of excellence have less bandwidth than a home broadband user in North America or Europe, and it must be shared among hundreds, even thousands, of users. In spite of the reputed rapid spread of the Internet, about five of the just over six billion people in the world remain without access to the Internet. Access could, therefore, be the single most important issue to most people, in particular, in developing countries, where people pay up to 15% of earned income on communication costs, compared to 3% of earned income spent in developed countries. The Internet is a global public space that should be open and accessible to all on a nondiscriminatory basis. In this regard, we recognize the Internet as a global public good. Access to it is in the public interest and must be a public provision.

- The WSIS phase was marked by the asymmetrical and unequal participation of developing countries' state and nongovernmental actors, where developing country governments were largely absent in the policy and decision-making spaces. One of the challenges for the IGF is to remain inclusive and apply itself to the question of how it will achieve its stated objective to approach Internet governance with the needs and priorities of developing countries in mind. To adequately respond to this challenge, the IGF has to be meaningful and relevant at the national level by linking international processes. Paramount must be a preoccupation with building understanding of technical processes as well as facilitating buy-in to human rights values among all governments, including developing and developed country governments.
- The IGF has drawn unprecedented and unexpected levels of interest from a range of stakeholders. It has gained currency as perhaps the legitimate post-WSIS space in which different stakeholders can exchange ideas and best practices intended to safeguard and extend the Internet as a global public good and to foster global buy-in into shared values like openness, transparency, equality, among others. Yet, despite the best efforts of the organizers, a cursory perusal of the workshop programs and its participants and even of this hall confirms that these spaces remain unacceptably man-dominated. It is a challenge for all stakeholders to engage the question of how to extend and grow the Internet that we also extend meaningful participation of all stakeholders, and especially women, who make up just over 50% of the world's population.
- The IGF meetings must be an annual punctuation point where all stakeholders come to share lessons and best practices gathered at the national and local levels and facilitated through the interventions of the IGF. The level of stakeholders in the proceedings of the IGF places on it a burden of responsibility. This Athens meeting must be the beginning of a process that grows teeth at the same time it finds its feet.

### **Vinton Cerf, Chair of the ICANN Board, Vice President of Google**

30 years ago when Bob Kahn and I were working on the design of the Internet it would not have occurred to us that 30 years later we would be sitting in Athens with a roomful of people discussing global Internet governance. In the 33 years since the concept of the Internet first took shape, it has become a global infrastructure of increasing value in many dimensions. Its ability to absorb new technologies and to support an increasing variety of applications are indicators of the power of its simple, clear, and well-defined technical specifications and openly accessible capabilities at all layers of its

architecture. We've reached this stage as a consequence of the voluntary cooperation and coordination of literally hundreds of millions of participants, users, service providers, standards developers, application software programmers, operating system vendors, and a host of others. The influx of information on the Internet with the advent of the World Wide Web has fired our imagination and given substance to the possibility that all the world's knowledge may someday be accessible to every person on this planet and perhaps others, with the touch of a fingertip or the utterance of a few well chosen words. During the World Summit on the Information Society we learned from one another that there is still a great deal of work to be done to realize such a dream. There are only an estimated one billion users on the Internet today. That number might actually be larger if one considers that some of the two and a half billion mobiles in use are also Internet-enabled, and may be the sole means of accessing the Internet for some of the user population. We still have to provide several billion more users with access, preferably at the highest speeds technically feasible and affordable. Moreover, as the general public has become the dominant base of users on the Internet, we're finding that there are some who abuse this medium as other media have been abused. One can find fraud, harassment, illegal copying, material unsuited to children, content that's rejected in civilized societies and a range of other troubling behaviours intermingled with a massive use of useful content and services on the net. Nor are these matters simply confined to national boundaries. The Internet is a global system designed to allow everyone to interact with everyone else. And many of the problem behaviors are international in scope. These concerns will need to be addressed at local, national, and international levels and will call for cooperative technical, political, and legal efforts for their solution. The IGF is the latest in the potential forums in which many of these issues can be addressed and directional concepts shared. On the more positive side the Internet is already the largest distributed collection of historical and current information ever in existence. It is becoming a major facilitator of global commerce, an innovative source of education and entertainment and a powerful conduit for collaborative and coordinated personal, enterprise, and government activities. Putting into place a legal and technical framework that enhances the effectiveness of these capabilities in a global setting will further increase the value of the Internet investments made thus far and to be made in the future. A variety of organizations is already at work are helping to standardize or coordinate some of the efforts needed, often at the technical level, such as the Internet Architecture Board, the Internet Engineering Task Force, the World Wide Web Consortium, the Internet Corporation for Assigned Names and Numbers, and the International Telecommunication Union. Other organizations are contributing towards a deeper understanding of the cultural and practical implications of this global and growing network such as the Internet Society, the World Intellectual Property Organization, the United Nations Educational, Scientific and Cultural Organization, among many others. The Internet governance Forum can serve as a platform for identification of important Internet-related issues and which potential organizations already equipped to deal with them. As increasing amounts of information find their ways into the Internet's archives, it is vital that we preserve their accessibility, renderability and interpretability. Digital documents often need to be interpreted by special software packages to be rendered in understandable form. We will need to assure that the bits we preserve on digital media can also be read and understood not only by people but by computers programmed to help us manage this ocean of information. Steps are needed to assure that the information we accumulate today will be usable not merely decades but centuries and even millennia into the future. We need to preserve access to application software, operating systems, and perhaps even hardware or simulators so as to retain the ability to make effective use of our digital archives. It is equally important that we preserve the global interoperability of the

Internet even as we strive to make it more inclusive of all the world's languages. Already, Unicode is helping us to record and present information in many of the world's languages on Web pages and in massive databases. There is a strong interest in the existing and nascent Internet community to have the ability to register domains written in the characters used in their preferred languages, and therein lies a huge technical challenge. Such domains are sometimes called Internationalized Domain Names, or IDNs for short. One of the most important aspects of the Internet is the ability for every user to make unambiguous references to every registered domain name. Historically, this global feature has been achieved in part by restricting host domain names to be expressed in a small subset of the Latin characters A through Z, digits zero through nine and the hyphen. It is understood that this will not suffice for users whose native language use characters other than these. At the same time, it is vital to preserve the global ability to refer to and to use every domain name. This global interoperability needs to be preserved especially as new languages are supported by the Unicode system through the addition of new characters needed to express them. It is utterly critical to appreciate that domain names are not general natural language expressions. They are simply identifiers that help users uniquely reference information in the Internet using strings of characters grouped into a sequence of labels that make up domain names. They must be unique, and names registered today must continue to work into the distant future no matter what new characters are added to the Unicode to support the expression of additional written languages. To assure this stability and global interoperability, it is necessary to permit only a carefully chosen subset of all possible characters in Unicode to be used in domain names. Adding IDNs at all levels in the domain names system potentially affects every application that makes use of domain names. The mechanisms of the domain name system make demands on the normalization and matching of domain name strings that far exceed the simpler requirement that natural language strings be renderable using Unicode. A miss step in the specification of the IDN rules could easily and permanently break the Internet into non-interoperable components. New work in the Internet Engineering Task Force and the ICANN committee on IDNs among others is pointing the way towards specific solutions. Much work is still to be done to assure the stability and security of the Internet's addressing and routing system. To expand the address space from the present maximum of 4.3 billion unique addresses to 340 trillion trillion trillion addresses. The potential scale of such a network brings with it huge challenges associated with the management and efficiency of the Internet's low level routing tables. Accurate and verifiable records of IP address assignments are increasingly important in assuring stability of this vital part of the Internet's technical design. We have much work to do to improve the resistance of the network and its attached computers to a wide range of denial of service or other attacks. The incorporation of signed domain name zone files is but one of the many efforts underway to increase the ability of the Internet and its components to resist attacks by would-be disruptors. In addition to these technical challenges we need to join together to identify the non-technical but equally important operational frameworks in which the Internet's resources can best be deployed and applied. The openness of the Internet, the ability of its users to invent and test new applications, the freedom of virtually any computer on the network to interact with any other within the limits of safety and resistance to abuse have all contributed to its vitality and innovative character. Despite its operational existence since 1983, the Internet's application space has barely been explored. There seem to be an endless array of potential ideas left to be considered, limited only by the imagination, and our ability to produce the necessary software to make these ideas real.

**Robert Kahn, CEO and President of the Corporation for National Research Initiatives (CNRI)**

I agree that it would have been very hard for us to imagine this meeting in Athens when we first sat down to write the specs for the Internet protocol some 30 years ago at the cabana Hyatt in Palo Alto. Although this forum is focused on the development aspirations of the world community, it's really about starting an informed discussion, indeed a continuing multi-party dialogue, among those most interested in the Internet and how it can best serve the needs of people everywhere. What the forum can provide us is valuable insight into the Internet and its possible applications, it can enable an ongoing discussion about how we should manage our many collective activities in a constructive fashion, and it can uncover issues for which such discussion will be most fruitful. As an evolving infrastructure, the Internet should not be viewed only on the basis of existing technology, as that will surely constrain, even diminish, its future possibilities. Rather, we need to be continually open to and solicitous of new ideas, new technology, and even new social processes to sustain that. This task will require both insight and discipline to allow the new approaches an opportunity to compete against older entrenched technologies, processes, and systems. As in other areas, healthy competition of ideas will be our best companion going forward. From the early days of the Internet, we were well aware that the open architecture model that Vint and I developed would present challenges to the status quo in the telecommunications world. Recent history has illuminated the profound importance of the Internet to so many of us on a daily basis. In my opinion, the two essential characteristics of the Internet which allowed it to take hold in so many countries around the world were the removal of central control from the overall operation of the system through the use of open architecture, and the active participation of the research community from the start. Those attributes opened the door to participation by many other organizations and individuals from around the world. We are now witnessing a continued technological revolution. Increases in bandwidth, combined with the number of new devices, access methods, and mobility, and the introduction of new information management technologies are placing difficult and sometimes competing demands on the infrastructure to support them in an integrated fashion. We need to think carefully about how best to handle this growing diversity of options going forward. New services will not appear everywhere within the Internet all at once. And our goal should be to work toward seamless integration of such services in the Internet over time so as not to result in fragmentation. In this context, it is essential that external network specifications be made available for such new services so that others can choose to participate based on their compliant implementations of those specifications. This is a role for the relevant standards bodies to consider. And in this context, the relationship of this forum to the relevant standards bodies is itself a worthwhile subject for consideration. The free flow of information as has been discussed by others may be impeded by complications that arise from diverse and perhaps contradictory policies developed independently around the world. I need only mention security concerns to highlight one area that will continue to be critical here. Increasingly, governments and private sector organizations may be called upon to coordinate such policy choices, perhaps on a bilateral basis to begin with, in order to avoid unplanned and unwanted outcomes that affect how the Internet is actually used in practice. Identifying emerging issues could be an important contribution of this forum. To assist in the process, I drafted a short list of topics that may prove useful to consider along with the many other important issues that will be discussed in this and subsequent meetings. The topics on my short list address,

- The information infrastructure needed to enable systems of linked metadata registries and interoperable collections of information, such as digital libraries and archives. This infrastructure may also permit the logical combination of such capabilities into integrated information services. For example, distributed learning environments could be one possibility. Another example, containing

private information would be systems of health records. In addition to being accessed by others, with appropriate permissions of course, the possibility should exist to preserve this information over time along with a method of verifying its continued authenticity. Other parties who are primary responsibility in the creation and maintenance of the actual information would have a role to play here, too.

- Cost effective and technically advanced means of engaging interested parties in both formal and informal meetings and other collaborative efforts conducted over the Internet so that not everyone would need to travel to far-away places to participate. Perhaps one day we can get to a point where there is no longer a need for a meeting to have a physical presence at a specified location other than "on the Internet." I would seek to employ advanced language translation capabilities in the process, wherever possible, so all could participate on an equal playing field.
- How best to describe and accredit organizations and services on the Internet in a globally effective way, without an unduly intrusive certification process. Such a capability can provide a degree of certainty in various transactions. While each country may elect to have its own means of handling this situation, transparency as well as interoperability will be important so as to enable rather than impede certain Internet transactions.
- The early selection of the domain name system which I had a role in as a means of managing IP addresses in the Internet has proved to be helpful over time. While the DNS will continue to play an important role in the coming years, newer mechanisms with enhanced capabilities for providing identifier and resolution services should also be considered in these discussions. For example, the Handle System is widely used for this purpose around the world. It supports multilingual capabilities and security, and I would recommend that you consider the application of both identification and resolution services in the context of a more general digital object architecture of which the Handle System is one implementation of a key part. The utility of this architecture ranges from traditional print material represented in digital form to its use more widely in commerce. For example, consider data structures that represent value. Here I am thinking of digital entities such as bills of lading as might be used in shipping or commerce, or stock certificates which have utility in commerce where transferrability and authenticity are key attributes.

The work we did on the Internet has been augmented and improved upon by the contribution of many others over the past 30 years, and this trend will no doubt continue. In large part, this has happened by design, yet some of the most important contributions that we made, both Vint and myself, were not purely technical. We had a relatively free hand in the early days in making key decisions about the Internet and both of us have continued to participate in its continuing evolution. Along the way, we had to create many of the critical social processes that have served us well over the years. Hopefully, the Internet Governance Forum will be another important social contribution in that tradition that we can all take credit in creating. What started as a U.S. government supported and managed research activity has long since been transformed into a multi-stakeholder activity with private sector initiatives driving development and governments around the world engaged in oversight, policy development, and even funding. What began as a research activity has long since moved into a much larger context. The Internet will require continued input from the research community to keep it rejuvenated with fresh ideas that can be implemented in

commercial products and services and reflected in supporting government policies. Although the focus at this forum is primarily on the Internet itself as infrastructure and its role in development, increasingly our attention will need to accommodate newly developed applications and services and their benefits, along with the many existing applications and services on the net. And we should do so in a way that has the potential to bring these benefits to all nations of the world, and to empower individuals and organizations everywhere to contribute and to take advantage of them. The opportunities for the future of the Internet are as great, if not greater, than they were when we began this adventure. And I trust that current and future generations will continue to build upon and enhance the many contributions of the past. The Internet Governance Forum can play an important role in this process.

## 2. Setting the Scene

### Chairman:

- **Panagis Vourloumis**, President & CEO of the Hellenic Telecom Organization (OTE)

### Moderator:

- **Kenneth Cukier**, The Economist

### Speakers

- **Karen Banks**, APC
- **Phil Bond**, President and CEO of ITAA
- **Bertrand de La Chapelle**, Special Envoy for the Information Society, Ministry of Foreign Affairs, France
- **Yin Chen**, Director General, Department of Foreign Affairs, Ministry of Information Industry, China
- **Pierre Dandjinou**, UNDP/Chairman of AFRINIC
- **David Gross**, Ambassador, Department of State, US
- **Jean-Jacques Massima Landji**, Head of Delegation (Gabon)
- **Hideo Shimizu**, Vice-Minister, Ministry of Internal Affairs and Communications, Japan
- **Juan Carlos Solines Moreno**, Head of ICT and Telecoms Regulatory Authority, Ecuador
- **David Souter**, Managing Director, ict Development Associates Ltd./ Professor, Business School, University of Strathclyde, Glasgow
- **Lynn St. Amour**, CEO ISOC

- **Manolis Stratakis**, Member of the Greek Parliament
- **Sharil Tarmizi**, Malaysian Communications and Multimedia Commission (MCMC), Chairman of ICANN's Government Advisory Committee (GAC)
- **Paul Twomey**, CEO, ICANN

CHAIRMAN VOUELOUMIS:

I welcome you to the first inaugural meeting of the Internet Governance Forum. I wish to thank the United Nations Secretary-General for giving Greece the opportunity to be the host and to extend to everybody present here appreciation to the minister of transport and telecommunications for organizing this event. Internet is the case where the GENIE is out of the bottle. Things will never be the same again cutting across borders and continents, it is forcing us to rethink urgently positions not only technical and economic, but also ethical and political. Internet can be a positive force in a global community, and this is the purpose of this international dialogue.

KEN CUKIER:

Why are we here? It's good to remember that this is not the beginning of something, and it's also not the end of something. We're in the middle of something. On one hand, we're always in the middle of a transition. The Internet has been going strong now for 40 years, and it's going to go strong, we can predict, a lot longer as well. We're also in the middle of something in terms of how we structure the Internet, how we think about it from a technical point of view, but also from a policy point and regulatory view, what it means for us in society in terms of bettering people. Obviously, government has a role to play. Obviously, business has a role to play. And, obviously, the people themselves have a role to play. For that reason, this forum fits nicely in the framework of how multistakeholder institutions go forward and think about big issues that are more than just one stakeholder to move forward and advance.

MARKUS KUMMER:

We're moving now into the more experimental phase. This is not a classical intergovernmental meeting where each delegation sits behind a table with a name plate. We are sitting in a very free theater-type setting in a big hall. So it will not be that easy for the moderators to recognize anybody who would like to take the floor and also, we have on the wall the writing, whatever you say will appear on the wall. So our scribes would like to know who it is who is asking to say something. And we try to have a slightly structured interchange between the panelists and the audience. We can count on the support of some members of the advisory group and volunteers, who will help catching the names.. This is, as we said, an experimental phase. After today's event, we'll go over the books, and maybe we'll have adjustments to make. The whole event is also webcasted, so people who are not able to be in Athens can look at their own computer at what's happening here. And we hope that we will have some feedback from these people. Additionally instant messaging may be a good way of placing questions. We will try and set up some focal points for receiving any questions that come from the outside. And, in addition, we have two people who will watch the blogosphere. And they will occasionally give their impressions to what people outside this room will have to comment.

KEN CUKIER:

The first success of the IGF can be attested right now. This is an impressive group of people. All of them are experts in their field. I remember about a decade ago being at Harvard University where they had a similar conference on Internet governance. At the time there were only about 200 people in the room. Almost all of them were American. About 70% of them were academics. And of course the businessmen there were thinking, this just does not work. Internet governance has changed considerably since that time. The question, maybe to start off, is, do you feel that Internet governance is keeping pace with the evolution of the technology of the Internet itself? And how do you think that multistakeholder approaches fit into this question.

PHIL BOND:

Why not? It is constantly a challenge for all multilateral bodies to stay up with the pace of technology. That is just almost an article of faith. The good news is, that the various stakeholders are here together. In my case, I'm particularly thrilled to be representing the private sector, because they have the reputation of being a bit quicker in their cycles than other agencies of government.

BERTRAND DE LA CHAPELLE:

Internet is not only of a technological nature. The Internet has now become a social, economic, and political arena. More than a billion citizens around the world exchange through blogs and social networks. And it goes beyond that. The result of that is that for the governance of the Internet we need all the key players from government, business and civil society. The main outcome of WSIS is that we've seen a decrease in mistrust between the three stakeholders. It's a great pleasure to see people in the hall who four years ago wouldn't have sat together in the same room. That's huge progress due to the summit.

PAUL TWOMEY:

In some strange senses, the Internet has evolved critically, and in others it hasn't at all. Maintaining global interoperability, whether the network had five nodes or 500 million nodes, really does require a common approach to the way in which the architectures worked. One of the great geniuses of it is that it allows the innovation to take place at the edge. But it's the stability of the various layers, which ensures that you can keep adding another layer on top of each building all the time. The continued evolution of Internet governance is not really open to revolution, because it does require the continued building. You are standing on the shoulders of the giants of the past. You do actually have to make certain that the architecture works and that you keep stability, while at the same time allowing for innovation. That's pretty important, because there's been a tendency in some of the Internet governance debate in the past, to confuse the issues that emerge out of the content that's carried on the Internet's routing and addressing system with the issues of the routing and addressing system itself like issues of new applications and usages and the sort of social directions Bertrand was referring to. They may need a different approach.

KEN CUKIER:

One of the key reasons following WSIS is the question of development. Is the evolution of the Internet's policy-making keeping pace with the technology of the Internet in the framework of development?

JUAN CARLOS SOLINES MORENO:

Development models adapt to the sort of circumstances which exist in each country.

And that's why there is no tested method. We've got countries such as France with a centralized, strong government which can take decisions in a lot of different spheres. But then on the other hand, you've got, for example, Spain and Germany, which are very highly decentralized. In Latin American you've got different development and political models. Costa Rica and Chile, for example, are rather different. And this needs to be reflected in ICT policies. There is no clearly defined model. Each country has to adapt to its own circumstances, bearing in mind what its own agenda is, and also taking into account that technological development is coming about at such a rate that developing countries are finding it very difficult to keep up and draw up their policies at this rate, as well as basically the users and the private sector that want this quick development. Countries have to find ways to discuss this, to have an exchange of experience, both from a regulatory and a political point of view as well, in order to deal with this.

KEN CUKIER:

Are there any lessons learned from the past? We have many decades of experience. What works, and what doesn't?

JUAN CARLOS SOLINES MORENO:

It depends on the circumstances in each country. In some countries, connectivity and access is very widespread. But now the priority is to bring in large swaths of the population to ICT. Some are more advanced in terms of connectivity and access. People have understood that ICT's a type of tool for development. There may be different priorities in terms of local applications. There is no clear-cut recipe for developing countries to apply. It has to be tailor-made and will depend on the development policy.

PIERRE DANDJINOU:

In Africa what policymakers are really looking forward to is best practices in terms of how you should apply ICT for development. And most of the countries actually went through some sort of what we might call sector regulation. But you still have countries where you talking about ICT is low priority and the real issue is water. How do you resolve this? Regulation should become much more development-oriented. It should not just be about getting licenses and making profit it should be put into the broader context of development.

KEN CUKIER:

Today there's about 30% more people in Africa have mobile phones than they did when we first met in WSIS 2002. Information society is moving forward. But it's not happening in the way that we expected it to happen, where there was maybe this Western presumption that it would happen through the PC and Internet access through a wire. But that's not happening at all. What can the development of technology in terms of mobile phones tell us about how we think about Internet governance and go forward?

JEAN-JACQUES MASSIMA LANDJI:

In certain countries, mobile telephone penetration has increased by ten and that's affected the classical networks as well. Because in a lot of countries, the telephone pool, with the land lines, was the main point. Over three years now, this has been a tenfold multiplication in the number of mobile phones. So beforehand, it was very expensive for operators and there was a monopoly. But now there's free competition on the networks. Under the connectivity approach, having as much access as possible to

the services, people really appreciate mobile telephony. And it's got some huge benefits, because in certain areas, people didn't have access to phones at all. Mobile telephony has opened all of that up. And this access has allowed us to put a bit of a brake on this ignorance. People in the hinterland weren't aware of what was happening in the state and they've now become part and parcel of the overall development policy.

HIDEO SHIMIZU

In Japan the number of subscribers of mobile phones is 94 million. And with 80,000 mobile phones you can access the Internet. It becomes a very big tool. If things are getting too big we always have to look into regulatory options.

SHARIL TARMIZI:

Focusing on the technology is one thing. Focusing on access is another one. The core is what technology can do for people. And that probably is maintaining links and social networks. You have seen the advent of MySpace and YouTube. Who would have thought that they would have grown so rapidly? I don't know how it is making money, but it's working.

DAVID SOUTER:

Actually, information and communications have been going on since the dawn of humanity. People have always had information, exchanged information, communicated with each other. And new technologies come into an environment in which there are long-established patterns of behaviour. So this isn't a kind of revolutionary new thing. In terms of the telephone and Internet, the research on telephone use in very low-income communities, where it is expanding extremely fast is showing the primary uses are for emergency protection and maintaining links within family and other social networks. That's a very different kind of purpose from what you will see when Internet is first used. One needs to be careful of linking phone and Internet too closely. WSIS emphasized the importance of ICTs in development. However the Millennium Review Summit ignored the importance of ICTs in development. There is a very paradigm gap between the ICT-led assumptions of WSIS and large parts of the development community.

DAVID GROSS:

It is always easy to worry about what is the actual situation but it's much harder to understand where things are going and to try to be proactive in a way that helps everyone. And yet that's our job. When this was originally discussed, having an IGF, I was certainly not only persuaded but enthusiastic about the creation. What I heard from my friends in the developing world was that they needed a place to go to have this type of exchange. We in the developed world took for granted this type of exchange. And that that was not universally true. It's the type of exchange which can lead to greater understanding, not because there is a truth but because we all come together and try to create an understanding that we can all live with and advance. It is through that sort of exchange of ideas, the best practices and enabling environments will be build.

YIN CHEN:

In China, my government is greatly interested in this matter. We look at it from a strategic point of view. The development of Internet in China is closely connected with the information industry development and how we have adopted corresponding policies and measures. In China, Internet has been growing for just ten years. Internet in China has more than 100 million users. Internet has penetrated to all areas of society, including the political and economic sphere. It is quite important for us to adopt a good

policy to encourage maximum competition of the market in order to encourage the growth of Internet.

LYNN ST. AMOUR:

There is a danger when we speak about Internet governance and tying it to forums such as this and believing that we are actually addressing it. Internet governance takes place all over the world every day in many places. It takes place not only in recognized forums like the RIRs or the IETF. It takes place in discussions between ISPs and their customers, between ccTLD and gTLD registries and their customers. The Internet was built on a number of principles: Openness, transparency, and inclusiveness being three of the most fundamental. I would prefer that we do not focus on models, we should discuss principles.

KEN CUKIER:

We might find we agree on the principles but we disagree on how we get there. One of the tensions in the WSIS process was a disagreement not on the principles but on the procedures how to implement them. If the Internet grows, gets bigger and becomes kind of the bedrock of so many interactions in our everyday life, governments and the power of democratic institutions need to play a role. That's what they are there for and we rely on them for that. At the same time, this very platform that we are talking about came about precisely because it didn't have as much intervention from governments. It was left to its own to sort its way out. There is a fear amongst some people that if we put too much control and government effort in guiding it, that it actually may create problems and undermine the very innovation that we like so much that gave us this platform.

DAVID GROSS:

That's a very legitimate concern. But it misses both the history and what I think is the lessons about the wireless industry. The lesson of course of the early days of the Internet is governmental intervention which is governmental funding but taken ultimately to where it is by the blood, sweat and tears by the private sector, academics, others creating it. It was not a governmental construct. Similarly, one of the other lessons I take away from the wireless success in places like Africa, Middle East, Asia that we have seen very recently is that government has provided the tools for the private sector to create the value. It has allocated the spectrum. It has allowed for competition. And I would suggest that a very good portion of the problem we are seeing in some of these areas with regard to Internet access is because the governments haven't learned the same lesson and applied it there. That is, competition allowing for free flow of information and the creation of competitive infrastructure for the private sector and other groups, to be able to create that infrastructure for people to have access. This is not a complete answer but a very significant part of it.

KEN CUKIER:

At this point what I would like to do is turn it to the audience.

From the floor:

I have been a member of the ICANN At-Large Advisory Committee. What's the lesson learned from ICANN's experimentation with regard to the inclusion of individual users from civil society. Can it be applied to other areas than ICANN? Internet empowered the users in unprecedented ways. Now the users have a lot of power and there is no border, how can we deal with this?

PAUL TWOMEY:

At one level what strikes me about the globalized economy in the 21st century is that we are actually facing an environment where the boundaries of the nation state and the power of the nation state have both blurred and diminished. That not only large corporations but small corporations are truly multi-national and that the technologies allow individuals, both skilled individuals like the technologists but also the activists and those concerned to participate globally. ICANN, in some respects, is an expression of a new form of international coordination. It recognizes in its structures that governments are incredibly important. But it also recognizes that the technical community who are truly global are influential, that the business community that helps fund this are very important, that the citizens but most importantly the users are. And it tries, imperfectly and still struggling to get that right, to actually build a structure that reflects each of those influences in pragmatic terms that all of these parties pragmatically are collaborating in building the DNS. Indeed, there are other areas of international coordination where this model may emerge.

KEN CUKIER:

Paul, you were part of the making of ICANN representing the government of Australia. You were the chairman of the GAC. Now you are the president of ICANN. You are in an unparalleled position to tell us something what you have learned in these eight years of ICANN.

PAUL TWOMEY:

One key lesson is that ICANN has built into its bylaw a form of review process of its own organizations. It took us quite some time to get there. Our first attempt at review was quite revolutionary. But such a review helps you to move towards an evolutionary way of reform. If you are actually building a multistakeholder organization that is serving a global need, there is an incredible amount of work about constantly trying to recruit and engage people in that process. And it's not just a question of effort. It's also a question of money and time. Izumi could give me 15 things we haven't done enough of. The up side of multistakeholder and full participation internationally is that you do get that sense of consensus and a bottom-up form of legitimacy. The down side as an administrator is that it's a very engaging, very expensive, very exhausting way. If you have any idea how to make it better I will be available at the end of the room, and you can share your ideas with me later.

From the floor:

For the Russian government security is a key issue. The Internet unfortunately, is used by terrorists and other criminals for destructive purposes. In determining the usefulness of Internet, we ought to think about also on international security. We picked this up in Tunis. But I don't think that we really went into these issues in any great depth. It is, of course, a very complex issue and we're going to have to reflect very carefully upon these solutions that we come up with.

DAVID GROSS:

This is a very serious and important issue for all of us. We think there are certain core principles that, from our perspective, guide us through this difficult process. The question touches on the different natures of security. But taking the question about the terrorist aspect of it we think, first and foremost, that we should never lose sight of the importance of the Internet as a conduit for the free flow of information. And that no one should use these other issues as an excuse for restricting it in ways that are not very

carefully circumscribed. So we believe that restrictions on the Internet content have to be done transparently, have to be done as a result of rule of law. But, yet, also take into account the fact that illicit uses of the Internet are inappropriate, whether it's IPR violations or incitement to violence. It requires us to keep two conflicting ideas in our head at the same time. One is the importance of the free flow of information. We have seen the rise of democracies around the world that corresponds very closely to the rise of the Internet, from about 30 democracies in the world in the '70s to over 120 today. At the same time, we have to recognize that terrorism can kill people through the use of the Internet, and must be stopped as well. How we do that has to be very carefully done in ways that are carefully tailored, transparent and based on the rule of law.

KENNETH CUKIER:

If we were to do this, there's a couple of ways to do it. The first way is to say that we need national laws within the different individual nation states to do this. The second option is that we need an international treaty, some sort of international norms. A third way is to say we need it to be done but we're not quite certain how to do this and it may be something like the IGF to do. What might be the best way to go forward?

YIN CHEN:

China's approach is to balance development with security. In the course of content development for Internet, it is necessary to respect the need for security of Internet content according to law. We have to make sure that in terms of laws, that there's freedom of communication and no threat to state security or to the healthy psychological mental development for juveniles.

From the floor:

I am from DiploFoundation and University of Sussex. Do you think that all these can be solved by market forces?

PHIL BOND:

I don't think those of us in the private sector pretend to provide the solution to everything or that the market solves all answers. But to the extent that a developing country or any country wants sustainable development, the market has a pretty good record of creating sustainable agreements that create value. There's some real value in market reliance, not that it has all the answers. Indeed, that's what we hear from the ICT associations in the developing world that they have much to offer, they have track records where the market has been used successfully to solve some development issues. Not all, certainly not every issue. And that's why we have multistakeholders here.

KAREN BANKS:

That's probably one of the very important issues that this IGF space does provide us with. I can't think of a space where the interested and committed global community come together and look at how we address the question of where the market does fail. And we know that the market does fail. It fails in some of the least-developed countries and very poor parts of some countries that aren't necessarily developing countries. In WSIS, we explored this to some extent. And we did begin to establish some interesting partnerships with people in the private sector and media and began exploring open access models and alternative ways of building critical infrastructure. Now, that's happening in little pockets. The IGF is a marvellous place to raise that issue more generally.

PHIL BOND:

That would be a meaningful discussion. In many cases, you would find private sector folks submitting that it wasn't the market that failed in some of those cases, but, rather, that the political and legal environment was not appropriate. It did not allow competitive forces to come to bear and the investment that follows on that.

JUAN CARLOS MORENO:

It is important here to note the participation of the private economy as well as civil society. The private sector, through innovation and development, is developing technology, and civil society is using the technology. The idea is basically to understand what the two sectors actually need. The IGF is just one part of the equation. The other part of the equation is how each country in its circumstances can implement this whole multitasking effort. We all have different experiences, different elements that we can bring into this equation. We need to complement this with alliances in the different societies, whether public or private, and to see how to move forward.

From the floor:

I am from the government of El Salvador. Governments spend an awful lot of time trying to explain what Internet governance is. We've used all sorts of different adjectives to describe it. Now, these terms imply that while people have to account for something, there should also be participation for everyone, the people on the street who also use the Internet. My question is, what do we do under today's Internet governance scheme to take on board these principles?

PIERRE DANDJINO:

First and foremost we have to understand to draw a distinction beforehand between the technical aspect and the political aspect of Internet governance. Not everyone can participate everywhere. A key issue is to provide information. Does everyone need to be an expert to understand the difference between IPv4 and IPv6? Users should have a right and a place to express their general concerns. But we have to solve the problems on a case by case basis.

BERTRAND DE LA CHAPELLE:

The problem in WSIS was the recognition of the two dimensions of Internet governance, the technical side like the management of the resources; and the more political side related to the use of the Internet. We couldn't draw that distinction very clearly. Now, when we talk about public policy principles which apply to Internet governance, we have to be very clear. You need principles which will apply to the way in which subjects are dealt with. To draw that distinction between the two levels of principles is something we need to dig into a little bit deeper. We're trying to tackle issues which are of relevance to the user. Is my mailbox stuffed with spam? And how can I avoid it if it is? And can I have access to something in the country where I am? Can I publish what I want? What about my intellectual property rights, are they being respected? Do I have the possibility of exchanging and sharing? All of these come under the umbrella of governance. Well, there are a lot of bodies which are dealing with this type of issues now. Do we need to add all of these issues to the IGF? The added value provided by this forum is that we have all stakeholders on board and can communicate without the pressure to find immediately a solution.

DAVID SOUTER:

A problem arises for the citizen in terms of dissatisfaction or uncertainty. People will cede control and authority in technical areas to those whose expertise they trust. You can't force people to be interested in technical issues. The issues that interest people are those where the technical issues intersect with the ones that people thought they understand, issues like security, policing, the relationship between the state and the citizen or trade. Those are the things that are particularly problematic. Internet governance has evolved on a basis of innovation. Most governance works on a basis that risk should be avoided. There's a big clash of culture between those two approaches.

KEN CUKIER:

How can one resolve this clash of culture in which the Internet relies on innovation which, by its nature is disruptive, unpredictable, creates winners and losers, versus the issue, the interest of governments for stability, for predictability, for a stable evolution. Is there a way to reconcile this? Or is this the conundrum?

DAVID SOUTER

There is a need for these two approaches to move together. There needs to be discourse, dialogue between different areas of governance and between those who participate within them in this kind of forum.

PAUL TWOMEY:

If we look at the 20th century there are two parts of governance. One has been traditional things of governance of society, of how people interact with people, and we have been doing that for 5,000 years. But there's another set of things that emerge in the 20th century which had more to do with the capital markets than anything else and the building of very large networks: the electricity network, the telecom network, the airline network, utilities. These things required large accumulations of capital. In some form or other in nearly every country there was a pact formed for regulation over a monopoly. Later we had liberalization. Margaret Thatcher started this which then has another form of regulation which is how to stop the incumbent from destroying all the competitors. The thing about the Internet is that they didn't need that much capital. One of the reasons why the Internet blossomed in the US was because the US had also pursued risk capital to a further degree through venture capital. Something like 5% of US savings got allocated to funds managers who were told go out and basically take as much risk as possible. And a lot of what is the Internet on the level of applications doesn't need large amounts of capital compared to the physical networks. And that's where we are getting a clash of ideas. In other parts of the economy where you don't need large amounts of capital we don't talk about this sort of topic. If there was suddenly innovation in consumer products, we don't talk about clash of regulation.

YIN CHEN:

In China, we have gone through several processes in the telecommunication development, starting from monopoly to liberalization. Because of the huge potential of the market, the demand for telecommunications is also huge. We have adopted a pretty liberal policy which encourages competition. Especially in recent years fixed and mobile phone users are growing by the number of 100 million. Among them, several millions are the new Internet users. For the part of the government, it has been trying to adopt policies to regulate the telecommunication so as to encourage the growth of economy, and this will have a positive impact on social and economic growth. Every time you go now to China you are going to see some new changes. This is a result of the pro-growth

policy adopted by the government, which encourages greater investment by the enterprises and to satisfy the demand of the market.

PHIL BOND:

Your question puts your finger on a difficult question for a lot of countries that they are still wrestling. The genius of this particular forum was to focus on the developing world where the case for stability or status quo is not a very good case, and the case for innovation and how to do that and focusing discussion back around the human factor in the developing country could be useful.

From the floor:

I am from the Murdoch University Perth in Western Australia. There's been not much said about how the IGF itself can move beyond discussion. How we fulfill some of the parts of its mandate which is set out in the Tunis Agenda to make, among other things recommendations? Do we need to split off into smaller work groups to discuss ideas and maybe agree on texts and then bring those back to the IGF in a plenary session such as this to adopt those by consensus? I thought perhaps either Dr. Twomey or Lynn St. Amour might have some thoughts on those questions.

LYNN ST. AMOUR

The IGF is actually about dialogue. I don't think it is a place for decisions or for recommendations. I don't think the process is nearly inclusive enough. I don't think people can come together for four days and have a discussion and believe we have addressed the technological, political, social, cultural ramifications of something that's so vast. We have to go back to the local level. We are not all interested in everything. We are not all experts in everything. You can't all be everywhere for every one of these discussions. So make it local, bring it back to the forums where you are interested in, where you specifically have something to contribute. The Internet was developed in a way where there was no central hierarchy and control. It was at the edges and does allow innovation and participation. The decentralized Internet clashes with centralization. Years ago UN secretary-general Kofi Annan challenged the community to be as creative about governance solution as the developers of the founders of the Internet have been in creating the decentralized network.

KAREN BANKS:

Discussion is important and very valuable. This forum is going to make an impact. My own organization very much believes in putting a lot effort into national work and capacity building. But to make the connection between the national and the global is a really tough task and requires a lot of work. How is the IGF going to influence other spaces that we've acknowledged intersect with our interest? Let's take the example of cross-border content regulation. Where can it be dealt with? Can it only be dealt with in terms of trade rules? If not, is the IGF a good space to get some dialogue happening with different stakeholders in a fairly comfortable environment where we can deepen our understanding, and then, some way, move recommendations to a space that is empowered to make decisions? It would be worth thinking about how we're going to do that. As a whole forum we are able to come up with some influential thinking and ideas that can help move forward these intractable issues that brought us here.

HIDEO SHIMIZU:

The IGF is the best way to share research and exchanging relevant information and best practice. This is maybe the best compliment.

JEAN-JACQUES MASSIMA LANDJI:

Don't forget the Tunis commitment, which said that we had to establish something and thereby continue with dialogue. Most of the countries here are signatory states of the Cybercrime Convention. Nobody wants to have cybercrime continue. In terms of security, we have reached already the level of agreement. We have in WSIS delegated responsibility for Internet security, to ITU in the C5 Action Line as well as infrastructure (C2). In terms of the content and multilingualism, UNESCO plays a vital role. But a forum like this, which cannot take any sort of binding decisions, we can't have a recommendation here. The various countries participating are linked through international agreements. So let's see how we can move to common ground. Let's see how we can marry the most contradictory views.

From the floor:

I am the deputy ICT minister from Iran. In WSIS we agreed on a list priority issues related to Internet governance, including governing the root, DNS and IP addresses. It is unfortunate that such priority issues did not explicitly found its way in the IGF agenda. To achieve an international management of the Internet which should be multilateral, democratic, and transparent the IGF and other WSIS follow up mechanisms needs to examine these core questions.

From the floor:

I am from the Saudi Arabian government The Tunis summit recognized that there are many cross-cutting international public policy issues that require attention and are not adequately addressed by the current mechanism. Thereby, the summit established a clear and effective work plan for addressing all these issues through two discrete processes. Each has a particular role. One process cannot be considered an alternative vehicle to reach the objectives of the other, and each should be handled independently to achieve its particular predefined goals through its consent stakeholders. One process is the enhanced cooperation process whose objective is to enable governments to make the necessary decisions on issues related to international Internet governance public policy. And the other is the IGF whose objective is to provide a venue for all stakeholders to deliberately, openly and inclusively talk on all matters related to the Internet while ensuring it would remain as a neutral, non-duplicative and non-binding process. While we express our pleasure that the IGF is being held, we nonetheless remain anticipating the call by the UN secretary-general to start the enhanced cooperation process in a manner consistent with the predefined role as determined by the WSIS. This will enable governments to have an equal role and responsibility for international Internet governance and to develop public policy in consultation with all stakeholders.

VINT CERF:

The Internet's implementation really is quite layered, and that the lowest layers are quite physical. They have to do with pieces of equipment, wires that move bits around or radio links or laser things. And there are certain parties who are responsible for operating at that layer. There are companies that offer services at that layer. There are users who get services at that layer. And when there are disputes, perhaps there's competition for services at that layer. I wonder if we can start thinking about parsing the various governance issues up, using this layering structure as a guide. This is by no means the solution to everything, but it might help organize our thinking about which parties are in dispute or which parties need to be governed, and what do they need to be governed about. So in the lowest layers, we might be concerned that there isn't

enough competition at that physical layer. And so we might be concerned to make sure that, in the absence of competition, there's regulation to protect the consumers of that layer of service. As you work your way up in the architecture, you get different players. You get some players who are, in Paul Twomey's comments, are providing logical kinds of services. I'd like to dispute one thing that Paul said with regard to capital investment above the physical transport layer. The company I work for, Google, has had to spend a very substantial amount of money to build hundreds of thousands of computers around the world in order to offer the Google indexing service. In that case, there was a very big capital investment, even though the thing is operating well above the basic transport layer. So what I'd like to invite is some thinking about how to parse up the players into these different layers. Sometimes the same company could operate at different layers. But you might choose to have governance oversight or governance functions, depending on the layer rather than depending on the company. So I leave that just as a possible way of helping to organize our thinking when we ask the question: What kind of governance should we apply and where, and to whom, and which part of the Internet?

KEN CUKIER:

Now, if I agree with everything that you said, I could take it one step further, and I could say, wouldn't it be strange if we like competition so much and diversity so much and experimentation so much and see the value in that maybe we should think about the feasibility to have competition at the layer of ICANN? The idea of a single root, although how valuable and important that it is, seems an aberration when we think about telecommunications in every other dimension. In mobile phones, we have many different standards, and they all interoperate. Could we imagine something looking 15 years ahead?

VINT CERF:

The Internet was born in a somewhat competitive fashion. It offered a very different kind of switching service than the circuit switching of the telephone network. So in that sense, it was a competitor. But they were not offering the same thing. They were offering two different things. I sense what you're saying is, competitors offering the same service, the domain name service. One of the fundamental utilities of the Internet's architecture is to achieve uniqueness and no ambiguity as to the meaning of a domain name. What IP address is associated with this particular domain name. If you have competing domain name services and they are competing in the same name space, and if the consequence of that competition is ambiguous answers about the meaning of a particular domain name, then users will not get consistent results from the network. The e-mail will go to different places than you expect. When you go to a Web site, you may not be getting to the same one, depending on which of the competitors you're asking the question of, "Where does this domain name go?" The problem is that the current design of the network has domain names, for example, and Internet addresses that are not distinguishable as to which party is interpreting them for you. If you would have two different domain name servers for [www.icann.org](http://www.icann.org) and they were not giving the same answer, you couldn't tell which one you should ask the question of, because the domain names would be identical. So I actually don't think that competition in the way I understand you to be asking about it would do us much of a service. In fact, it would create ambiguity, which I would believe is fundamentally antithetical to the way the Internet has served us in the past.

KEN CUKIER:

Might it be a risk when we say that there's legacy ICANN sanctioned names. And they'll be stable. They're kind of the potable water of the Internet. You know what you get when

you drink it. Where else could we see how there might be a diversity of approaches in the functions that ICANN plays? If we were not to allow a living, breathing, functioning, and evolution for ICANN, that there's a risk that ICANN becomes the very thing that you had to overthrow when you created the Internet, which is an ossified system that was very immobile and didn't change much?

VINT CERF:

Before I try to respond to that last part, I'm still struggling with the premises of the first part. I think that if you are going to try to introduce some kind of competition, you had better do it in a way that does not create ambiguity. Today, you go to ICANN in order to register top-level domains. And we authorize those. Similarly, you go to the RIRs to get chunks of Internet address space. And those are then allocated to parties who need to have a guaranty that no one else has been given that same IP address. Otherwise you get ambiguity. I suppose you could imagine taking the domain name space and saying, "Well, here's a new organization, we'll call it FU, and this organization is going to be allowed to create some more TLDs." Now, we have to make sure that FU and ICANN don't simultaneously create the same new TLDs. How do we do that? I guess we better create another organization that makes sure that ICANN and FU don't both pick the same TLDs. You just recreated a hierarchy which has authority somewhere to make sure ambiguity is avoided and uniqueness is preserved.

KEN CUKIER:

We've been walking around in circles all the time. I predict that in the future, we'll continue our journey.

VINT CERF:

None of this discussion rules out the very likely possibility that some invention will come along that is vastly superior to today's Internet and will ultimately overtake it. There are all kinds of possibilities here. But we are pushing the limit if we unnecessarily try to force competition in a place where it isn't useful. And in this particular case, I'm not persuaded of the utility, and I am worried about the risk of creating ambiguity which will destroy the utility of the net.

From the floor:

I am from the Philippines. Is there a gender dimension the Internet governance? If there is, what is it and how do you see it being addressed in the next three days of the forum?

From the floor:

I am from Morocco. We are aware that different multistakeholders are meld together the efforts in order to set up an adequate Internet governance system. To what extent the private sector, including the giant telecom operators, software private corporations etc. are willing to support technically and financially the access to Internet. And are policy-makers and governments willing to set up flexible procedures for a free Internet?

From the floor:

I am from Uruguay. Multistakeholderism goes beyond public private partnership between government and the private sector. It has to include civil society as well as the academic world..

From the floor:

I'm from the indigenous tribes of New Zealand, I am a Maori and I am a part o the indigenous caucus. Article 15 of the WSIS Declaration says, "In the evolution of Information Society, particular attention must be given to the special situation of indigenous peoples as well as the preservation of their heritage and their cultural legacy." I am interested in listening to opinions from the panel on how Internet governance can help us realize that particular aspiration.

JUAN CARLOS SOLINES MORENO:

Some of the outcome from this forum could be to achieve a common understanding of what a public/private partnership is all about. In my eyes it is everything stakeholders can do together. We are not limiting ourselves only to the private sector. It covers all sorts of partnerships. It's rather important that the private sector and the civil society should define their role within these partnerships. Each region has its own priorities. And at local level, each state may adopt the best solutions.

KEN CUKIER:

It strikes me that we all sort of believe in multiculturalism but in practice it's left a lot of difficulties in terms of how we organize it and how we establish this concretely in practice. The IGF is one example of it. It took us a long time to get here and we know it's just the beginning. It's not the end. So I pose the question first to governments. What do you expect from the private sector and from civil society?

DAVID GROSS:

I expect a lot of everyone. If I look back just over the brief history of the Internet, we have every reason to expect that we will exceed our expectations. I see many people who have done remarkable things with regard to the Internet. We talk about the 5 billion people who don't have access, and that's extraordinarily important. But just a few years ago no one had access to the Internet because there was no Internet. The adoption rate for the Internet is extraordinary, unprecedented in human history. That tells us a lot about ourselves and about the power of the Internet and the power of content and communication. But that doesn't mean there isn't a lot to be done. I am optimistic about the cost coming down because it has come down dramatically already and new technologies are bringing it down further, whether they are wire line through fiberoptics or through wireless technologies that allow people to solve that last mile route. Wireless services already on handsets are providing great opportunities for people to have access to the Internet that might not otherwise. We in the US administration have spent, just over the past two or three years, over \$250 million in the developing world to bring access to people. In addition, it seems to me that the private sector and civil society particularly, need to create content that is both accessible but also of interest and value to everyone. That means content in local languages and high quality. That means development of intellectual property rights, not just for those in the developed world, but rather for the new creators in the developing world who should have that same protection.

SHARIL TARMIZI:

One thing I can share from my ICANN experiences is that you should not think primarily what you expect for the other parties that what you yourself can bring to the table. This IGF has an opportunity to do so.

BERTRAND DE LA CHAPELLE:

I'd like to endorse Sharil. The big challenge that we're facing today is that we're now in a

framework where we all are considered stakeholders. And that means that we have a shared responsibility. It is our first responsibility to debate, not to agree. Don't be afraid to debate. This is what we are here for. Arguing with someone and not agreeing with somebody, having completely differing positions is natural. That means in many cases that you are just looking at the problem from a different viewpoint. And only through discussion and debate can a better picture emerge. It's our responsibility to get in touch with all the people who are interested in the same issues we are interested in. And if there's one thing that should come out of this forum at that stage is that we create networks of people which create channels where we can find at a later stage joint solutions.

LYNN ST. AMOUR:

I'd actually like the governments to take a real commitment to focusing on deployment, access, putting many more languages on the Internet. We should not water down the work of the IGF by focusing on too many topics. I'd actually suggest that the five billion people who don't have access to the Internet probably don't give a damn about spam and security at this point. That's something which will come at the secondary stage. If this forum had focused on that uniquely, we'd come out of here having made a lot more progress with respect to bringing the Internet to the 5 billion people that don't yet have it. It's very easy to politicize this discussion by focusing on the Internet root and the role of the U.S. government or we can continue to discuss multistakeholderism as a model. That's not going to bring the Internet to people who don't have it.

PHIL BOND:

The focus needs to be more on development. The next billion Internet users are going to come from the developing world. And we want to see that happen as soon as possible. That goes to governments' willingness to invite the private sector in not just for their money, but to have policy discussions. The private sector is more experienced in dealing with the rapid change of technology. It has a vested interest too but can contribute to an environment for innovation and for capacity-building.

From the floor:

I am a Senator from Italy. My government expects first to confirm the value of the multistakeholder approach. Today, we have a confirmation about the validity of this method. I think it's the first time that in this context there is a really interactive dialogue. In Italy, we tested it. A couple of weeks ago, we had a public consultation with the Italian government. We had also a virtual forum on the official Web site of the government on Internet governance, opened to the entire nation. The success of this forum proves out the Italian civil society is key in participating in this discussion. Second, we wish to move forward towards the identification of some few agreed lines of action. Third, Italy offers its contribution and mediation to the international debate for what we call a constitution for the Net, a set of fundamental rights and duties, rights and duties for the digital citizenship, an Internet Bill of Rights.

JEAN-JACQUES MASSIMA LANDJI:

For developing countries in general there are some very basic problems that need to be solved: Electricity, drinking water. How do you want the Internet to get in where there's no electricity? We were talking about the millennium goals beforehand. We're a long way from that. UN resolutions will provide deadlines on countries to achieve various concrete steps. And we're far from having achieved a lot of those. We're talking about this common will to provide the minimum of access to all countries so that you have an

elite, that can benefit from the information society. At local level, we want to get the regulatory provisions which would allow us to bring in programs for the least favoured sector of the population. The level of access to technologies shouldn't be essential, as such, the important point is to be connected.

**PIERRE DANDJINOU:**

AfriNIC came out of kind of multistakeholder collaboration. That's the way we did it. And we do have many other national institutions now that really need to be built on this sort of multistakeholder approach. ISOC and ICANN paved the way for a new approach. What they did was great, because some of the things were done without even government knowing about it. They just heard about AfriNIC. It came because of those volunteers that we have. We had success because of this multistakeholder collaboration. For me, the message here is not just about developing countries or developed countries. It's about ensuring that the Internet is there, grows up, and we beef it through all kinds of multistakeholder cooperation up so it can help solve problems and include soon also those who cannot afford.

**KEN CUKIER:**

Lets move now to our Chairman to summarize the debate.

From the floor:

Three things: First we have to be flexible. While we have been talking here alone in Greece another thousand people have bought subscriptions for the Internet. This thing cannot be stopped. It will be very difficult to be proactive in foreseeing what's going to happen in detail. We should be vigilant, but not try to regulate before it's necessary. Second comment: Don't regulate before the industry grows. If you regulate before the industry grows, then you kill the industry or you warp it or you twist it. Therefore, better let it be with all its faults and then come after, when you know more about it. Third: Internet gives power to various groups which are not officially kind of blessed, not officially legitimized. Like companies, technology people, groups of users. And this causes problems for governments because governments like to control. Governments feel insecure if they don't control. And this is to me an issue which I'm afraid we don't have time to debate now, but it's an issue which should occupy the workings of the IGF in the future.

### 3. Openess

**Chairman:**

- **Theodoros Roussopoulos**, Minister of State of Greece

**Moderator:**

- **Nik Gowing**, BBC World

**Speakers**

- **Carlos Afonso**, Technical Director of RIT
- **Anriette Esterhuysen**, Executive Director, APC
- **Hanne Sophie Greve**, former judge at the European Court of Human Rights

- **Joichi Ito**, Creative Commons
- **Jamie Love**, Director, CPTech
- **Paschal Mooney**, Senator, Foreign Affairs Government Spokesperson, Ireland
- **Andrew Puddephatt**, OBE, various human rights organizations
- **Art Reilly**, Senior Director, Strategic Technology Policy, Cisco Systems
- **Richard Sambrook**, Director BBC Global News
- **Fred Tipson**, Senior Policy Counsel , Microsoft,
- **Catherine Trautmann**, Member of the European Parliament

**CHAIRMAN ROUSSOPOULOS:**

The issue of open network, freedom of expression, free flow of information, ideas, and knowledge are main characteristics of the Internet. Communication through the Internet means that every day, millions of people exchange information. Through the history of mankind, this is the first time that so many people have had the opportunity of having such direct communication and expression so quickly and at so low a cost as Internet users have today. This means that the Internet has a very decisive role in constructing an information society, which turns towards its citizens, and thereby does away with social exclusion and helps social development.

**NIK GOWING:**

The principles captured in the Geneva declaration and in the Tunis commitment remain under threat. There are different views about what the issue of openness is. Let me go through a shopping list of what I think we should put on the agenda. The institutional fears of the new empowerment, the instinct of many still to control and intervene, online censorship, pressure on bloggers, blocking by governments, should ISPs maximize freedom of expression in countries with restrictive laws on information and communication, the aspiration of knowledge for all, the tensions around intellectual property rights, how to balance the rights of consumers and content producers, the threat to upholding human rights, shouldn't companies resist compliance with local laws that are inconsistent with human rights principles and how to square that circle to enhance democracy, to have social cohesion and respect the rule of law. This is a unique multistakeholder policy dialogue. And as Kofi Annan's message underlined, it is all uncharted waters. Lets go first to the audience.

From the floor:

I am from Amnesty International. We see the Internet as a potentially powerful force for human rights. But freedoms are under threat. Not just from governments that are shutting down websites, blocking, filtering, locking people up for what they're saying online, but also from IT companies that have colluded with repressive countries, particularly in China, in some cases providing information to governments that have led to people's prosecutions. How do we ensure that human rights are protected and they remain right at the very top of the agenda at the IGF?

From the floor:

I am with a biopolitics international organization. I'm concerned that we are moving too slowly. The environment is deteriorating, there's global warming, there's loss of biodiversity. These are issues where we can all join forces. Every individual needs to participate.

From the floor:

I am a former ICANN director. Instead of enlarging the agenda, I think it would be useful to focus on some ideas deeper on three or four points, instead of trying to discuss 20 seconds to 200 points.

From the floor:

I am from Agence France Press. I would like to ask Cisco what happened with the software material they have sold to the Chinese police. What is their policy in China?

From the floor:

I'm from the Danish Human Rights institute. I would like to pose the question as to how we deal with the fact that in an Internet context, different countries have different standards on what is illegal content.

From the floor:

I'm from Bangladesh. Openness underlines transparency, are we addressing that, too?

From the floor:

I represent civil society. How can we give access to the greatest number of Internet users? We need interoperability, low access costs and tools which will allow everybody to exchange content. We need free use of software and the ability to distribute content freely. What we can do here?

From the floor:

I am from the Nigeria Internet Group. We cannot be talking of openness without looking at the issue of access. Access, inclusiveness, and openness are tied together. In a country where very few people have access to the Internet, openness becomes a secondary issue. I think we have to look at a way of providing low-cost equipment to access the Internet.

From the floor:

I am from Peru, and I belong to a nongovernmental organization. I have a question on freedom of expression, and I would like to address myself to members of parliament or government. I would like to see how access to information makes the state more transparent. The problem for the state with openness and transparency is that governments generally don't like offering this transparency to their citizens.

From the floor:

I am from the foundation for a free information infrastructure. And our problem is keeping the infrastructure free. If information and the knowledge is going to be free, then the infrastructure must be free. One problem is software patents. There are movements around to legalize the ownership of knowledge which contradicts freedoms of expression.

NIK GOWING:

Let me pick up the point from Amnesty International about China. Andrew Puddephatt, what's your reflection?

ANDREW PUDDPHATT:

One of the interesting things to me about the Internet is, notwithstanding the problems you have in China and some other countries, it is much less regulated than the traditional media, broadcast and print. Many countries don't see a special need that Internet services are requiring the same kind of control and regulation as media services. That's why the Internet is such an exciting area for campaigners who believe in democracy, openness and human rights. And why we are very nervous about attempts to restrict the ability of the Internet to provide the free flow of information, we have to recognize that the flow is as free as never before.

NIK GOWING:

Do you see progress or not at the moment?

ANDREW PUDDPHATT:

I definitely see progress in a sense. Obviously, there are points about access. Less than 4% of Africans are online compared to 85 % North Americans. But putting the access point to one side, where access exists you can definitely get information and ideas on the Internet that you cannot get on the conventional media. That is progress.

NIK GOWING:

Let's talk about online freedoms. What is your view on whether there is an entrenchment on positions?

ANRIETTE ESTERHUYSEN:

We need to look at rights and openness in terms of human rights and social and economic rights. And they are very integrated. You have the right to communicate and to speak, whether your rights being violated or not having access to clean water. This is very fundamental. Internet needs to be protected to guarantee these rights. The real power of the Internet is to create a world where there is more awareness and more realization of rights. With the Internet it's much more effective to engage governments for social and economic development level as well as for human rights.

NIK GOWING:

Do you see progress at the moment or not?

ANRIETTE ESTERHUYSEN:

I do see progress. There is growing awareness of the power of the Internet to promote transparency and more people are using it. But there is also protest and I think that is the power of the Internet which enables this protest against violation of human rights. There is a bottom-up force that is demanding rights.

CARLOS AFONSO:

I have a difficulty in dealing with these issues about Internet without considering the situation of regulation, legislation and control of the network itself. It was said here that the technical question is not as relevant as the other issues. Its about access and costs.

I would like to ask you would you pay for more bandwidth? I would pay for more bandwidth if I need it. Yes, we would pay for more bandwidth if we have the right to participate in decision-making regarding price formation of this bandwidth. We ask about freedom of access, but we are not discussing this. How a country in Africa has to pay much more for bandwidth than any other country?

NIK GOWING:

Is online freedom under threat?

HANNE SOPHIE GREVE:

I appreciate that there is Amnesty to follow violations of freedom of expression on the Net, but I think it's erroneous to think that human rights moves one direction all the time. There are ups and downs in every field of human rights. We should not speak of human rights as being isolated to civil rights. Social and economic rights are, indeed, human rights as well. And the human rights challenge is to balance all these different rights at the same time. What's needed is to focus on what are the specific challenges to the freedom of expression on the net.

NIK GOWING:

The words used there was that IT companies are colluding in some of these freedoms being removed on the Internet in some parts of the world. Do Microsoft accept that accusation?

FRED TIPSON:

No, I don't think I would accept the accusation that we are colluding but I think it's a longer response.

NIK GOWING:

Why do you say that?

FRED TIPSON:

Because I think we are optimizing the access to information for users and governments that Amnesty is targeting for its criticism. And it's those users that we need to keep our focus on. And there is an issue of roles here as to where criticism needs to be directed, not that we shouldn't receive some of it, but I think there are different roles that need to be discussed in terms of how we do protect freedom of access for users in societies where there are severe restrictions on information.

NIK GOWING:

Can you define where your line is?

FRED TIPSON:

I don't think it's a simple response. Doing business in a country is to abide by the law in the country, and we are, frankly, have been engaged in the last year on figuring out how best with industry other partners and with organizations like Amnesty that care about these issues how we can have a better discussion with governments to improve freedom of access and expression.

NIK GOWING:

But can you share with us, where is the room for maneuver at the moment?

FRED TIPSON:

I think the strongest arguments in most countries is the economic value of the Internet in driving growth and development and education opportunities. The freedom of expression issue is often too segmented into a discussion around free speech. But the more telling argument with governments is how they are depressing their own economic opportunities by constraining and smothering the Internet.

NIK GOWING:

Let me move on with Cisco.

ART REILLY:

I appreciate the fact that there's been such strong support for the free flow of information. And the free flow of information is under threat. Many people are afraid that they may be filtered. The Internet has become so important, so critical to countries and to international communications and commerce that it's become a target. And as a consequence of that, there are threats from individuals or organizations that would like to minimize or reduce the capability of the Internet to provide that free flow of information. As a consequence, it's essential that there be security and network management capabilities that allow operators and owners of the equipment to manage their network and provide the security that enable the free flow of information. The technology that does that is the same technology that's utilized by parents and by libraries to ensure that they have the ability to control and filter what their children can see, to avoid the potential for child pornography etc. The capabilities that Cisco provides in its equipment are sold to owners and to operators of networks. And it's the same equipment that we sell in every country around the world in which we sell equipment. There is no differentiation. We do not sell a different product in one country over what we sell in other countries. But it is provided with the capability to allow the network operator to manage the network, control the flow of information, to ensure that that free flow of information allows capabilities to be brought to the millions of people who look to get the benefits of the information that the Internet provides.

NIK GOWING:

Do you think your systems narrow and restrict the level of openness within the Internet, and you are comfortable with that?

ART REILLY:

I think quite to the contrary. The growth of the Internet is evident, and the capabilities I talked about in terms of the software that performs those functions is the same software or the same type of software that's provided by the other equipment suppliers. The Internet has grown as a result of the fact that it has provided the capability to allow users around the world to get access to information, to communicate, to exchange ideas, to be innovative, to create. The beauty of the Internet is that it is open, inclusive and it has the possibility for innovation at the edges, which means that users at the end of the network can create capabilities and applications, they can utilize to their benefit. An example, we are partnering with the Navajo nation, indigenous peoples within the US Southwest. They were interested in being able to utilize IP technology to connect the villages over a very disparate real estate using IP technology for education purposes, for eGovernment purposes, but also to allow them to open up the market they have for capabilities, their handicraft etc. Under the old conditions, they get 15 cents on the dollar. The ability to access and provide their information directly to the world allows them to make 85 cents on the dollar.

NIK GOWING:

Do you feel that you as IT companies are colluding in restricting freedom and openness on the Internet?

ART REILLY:

No, I don't. As I indicated, we are selling the same product in every country around the world. So we are not colluding with any government to do anything customized to meet any special need with regard to filtering. The product is provided to allow security and network management to promote the free flow of information.

From the floor:

I want to clarify that. I have a brochure here given by Cisco in 2003 in Shanghai, and it's a brochure which shows that you sell equipment to the Chinese police. So when you say you sell this kind of equipment to all the countries, it might be true, but you sell that to other police forces. And isn't it a problem to sell equipment to the Chinese police? Because you must know what the Chinese regime is and you must know how they are going to use your software. So please answer first, did you sell the software to Chinese police? And if you did, isn't it an ethical problem for you?

ART REILLY:

I'm not familiar with the sale of any product to a specific entity within China. I think we sell Cisco equipment to enterprises around the world, including governmental entities that utilize it to provide their communications to meet their needs internally. We also, obviously, provide it.

NIK GOWING:

Do you ever say no? Do you ever take a view, "We must not sell"?

ART REILLY:

Obviously there are business conditions that exist with regard to the sale, establishing price and our ability to actually deliver.

ANRIETTE ESTERHUYSEN:

There are repressive governments and there will be for a long time to come, and they will demand tools and software and technologies to aid in their repression, and there will be companies that respond to them. The real question for us here is how does a forum like this begin to create an international policy and principal framework that stops that from happening?

CATHERINE TRAUTMANN:

The answer we were just given really clarifies that it's market laws that are considered of more importance than freedom of expression. And at the European Parliament we agreed practically unanimously last July a resolution which tries to give a response to this issue, because there are sometimes technological means that are not repressive, per se, but can be used to a repressive end by various governments. We have asked the manufacturers of this software and equipment to do business with all governments but also keep in mind that the users of the Internet should also be protected. These interests should be balanced. We can work in a market, and also keep in mind that the users may have different needs. We have asked the member states to adopt a declaration which will promote freedom of expression on the Internet in the whole world.

We should condemn all attempts to restrict free expression on the Internet and also take up contacts with businesses in order to guarantee this, and only cooperate with governments that respect access to information and freedom of expression. I understand that human rights are not an abstract declaration. They should be given a more concrete context. Freedom of expression is fundamental. And if we want countries to develop in an egalitarian way, they should express freedom of expression.

NIK GOWING:

Based on your work in the European Parliament, are you saying that you are moving quite rapidly toward some kind of calibration of an index of repression, however you want to do it, for issues like IT and the Internet?

CATHERINE TRAUTMANN:

Yes, in degrees, of course. But what we should keep in mind is that there is national sovereignty. We are not going to ban them, but we could ask questions. We could not cooperate in certain areas, or we could apply pressure, for example, in some ways. We will soon be 27 member states. And I think that's quite a big number of countries. And some of them did live for a while under a totalitarian regime. I do understand that there are security issues for various regimes. But I know that my colleagues from the former Soviet bloc really have some very bad experience from this.

JOICHI ITO:

I realize it's very easy to want to paint countries and big companies with a broad brush and sort of paint them bad or good. And I never thought I would be sitting here defending Microsoft, but it's very important to understand, because I am a businessman at heart, that sharing and openness also makes practical business sense and also very often in the best interest of many countries. And that companies and countries are a myriad of different people with different interests. Microsoft has an open source license. They just made a plug-in for Creative Commons for us. We have been doing open democracy stuff in local governments in China. What's very important is to not destroy the dialogue you are creating with these people by not becoming antagonistic generally or broadly with them. It is important to amplify the good things that are going on as well as to highlight the bad things.

FRED TIPSON:

To distinguish between different kinds of human rights concerns that people have, let's just simplify by saying access to information is very different from freedom of expression which is about blogging and being able to express your opinions. And monitoring of e-mail traffic and demands for personal identifying information is a third area which is different from sales of technology that may have uniquely repressive potential that's unavailable to governments otherwise. We need to discuss each one of those things in a different context.

RICHARD SAMBROOK:

Joi put his finger on the core dynamics here, which is a collision of business interests with human rights principle. BBC's Web sites in China and Iran and a number of other countries are blocked because we refuse to compromise on our reporting. If we agreed not to report issues around the Falun Gong and Tibet, we can probably get our Website in China unblocked. But the principle of freedom of expression would be too severely compromised. And the question is whether a compromised service, be it in terms of technology or information, allows you to build a relationship that produces a longer-term

gain or whether, by making the compromise, you actually undermine any possibility of that longer-term gain. We certainly take the view that open reporting of all subjects is too important for us to compromise on. Clearly some IT companies take the view that a little progress is better than no progress. But that's a business decision rather than a decision of principle. And I think what we're seeing is the collision of those two.

NIK GOWING:

Do you think the BBC has made any commercial or brand sacrifice when it's made those kind of decisions?

RICHARD SAMBROOK:

We have certainly made sacrifices. It's a hugely important audience and public in China which is not getting access to our services and information that we would like them to have access to. But we think the principle is too important.

JAMIE LOVE:

There are a lot of threats to freedom and a lot of opposition to freedom. It's important that people are open about that, they talk about it, and they push back in all these areas. There are also attacks on what I call the opposite of freedom. It's a big attack on control. Why is it that the Internet is such a disturbing thing for authority? Why is the Internet changing things in a positive way? Part of it is the fact that there's this sort of routing around function that takes place in the Internet. Where there's certain sort of bad government or bad corporate behaviour people use the Internet in a way to organize themselves, propose alternatives, find kind of fixes and workarounds. Here we have a model different from television where we sitting at home and watching what broadcasters wants to show us. On the Internet, it's different. Everybody themselves is sort of the voice. It's this sort of routing around a centralized channel. Yoshi Bentler had said that one of the big things in open standards is that people have the freedom to implement standards in ways that were not controlled by the people that developed the standard. This lack of control led to the freedom that was associated with the Internet and led to all kinds of innovation. In the long run it's also in the interest of business to have a less controlled system. The sort of instinct to monopolistic control led to big market shares of a small pie. When you have more freedom you have more opportunities and a bigger pie.

CHAIRMAN ROUSSOPOULOS:

When we are talking about free access and free expression, where does freedom stop and where does one's complete, unbridled flow of information start? I can talk on television or to the newspapers, but I'm governed by a certain code of ethics therein. On the Internet, however, if I become a source of information and write anything I want against anybody I want. It can be an attack, not criticism in the good sense, in can be libel. What to do?

From the floor:

Major corporations should disclose their corporate policies developed specifically in China. It was mentioned that a journalist was arrested, convicted, and jailed. The question must be asked, where was the corporate ethics involved there? It seemed to me as an outsider that it was all about making money in China. So that's essentially the questions that need to be asked to the corporate sector.

HANNE SOPHIE GREVE:

We have had two different approaches when it comes to human rights. It is the approach of confrontation versus engagement. It would be very interesting to hear from Microsoft, BBC and Google how did they succeed in improving the conditions and lives of people by choosing opposite approaches.

ANDREW PUDDEPHATT:

The key thing is, does it work? I don't object to companies taking the view that if we sell our software and equipment we are creating new openings. The question is, are they actually creating new openings or are they simply reinforcing the control of the regime that it's already exercising in other spheres. With the Chinese government many people feel they use the software and the technical equipment they buy to reinforce their control, and it doesn't actually contribute to an opening up of a political or democratic space in that country. And it's not clear whether the economic development in China will produce greater transparency in other fields. There are some lessons from journalism in China. There was certainly an opening for economic and sports journalism, but not for political journalism. Chinese journalists have been put in prison or become quiet because they fear the regime has actually reacted to the exercise of their freedom. I don't think anyone is objecting to a strategy that works. And if it's effective and works, that's fine. The question is, does the deals China is doing with Google, Cisco, Yahoo and Microsoft opening that country or is it contributing to its further closing down?

From the floor:

I'm a human rights lawyer from Pakistan. I come from a region where human rights is a challenge, not just for the lawyers, but the people and journalists. In that context, I don't see a problem selling Cisco, Microsoft, or any other products to countries like China, Pakistan, or others. Think about it: If you're in China and work for the Olympic Games, do you want a Cisco system with the security services or not? In Pakistan, where we deal with terrorism, we are pushing that our security service, our police, our anticorruption agencies and terrorism-fighting agencies should have secure electronic systems. I think it's a good thing that the Chinese government is going for these systems, because it shows that it's trying to bring in transparency.

JAMIE LOVE:

It's good that people focus on the deplorable state of censorship and repression that exists in China. I think that's a very constructive thing. I'd like to say that there are some other things that China do and which are very positive. In the WTO, they've submitted a proposal in the Technical Barriers to Trade Committee, to address the issue of the relationship between standards in trade and intellectual property. They've raised the issue that in the WTO countries are using intellectual property rights as barriers to trade. The China initiative has been widely applauded by people that are seeking more openness in certain areas, particularly in the area of IT standards. One of the other areas where Cisco could be asked to talk about has to do with the technologies developing around this net neutrality issue, where there's just been a huge amount of effort in marketing technologies so that monopolistic bandwidth providers that control the last mile of bandwidth can undermine this sort of end-to-end principles of the Internet by providing discriminatory access to some providers to allow the person who controls the monopoly in the last mile to begin to exercise monopoly on the content itself. I think that's dangerous and pushes the Internet in a way that's really bad.

VINT CERF:

Google struggled for over a year before we concluded that we would offer services in

China for precisely the reasons that we were worried about the obvious, not just potential, but the clear interest in censorship. In the end, we concluded that we would prefer to provide as much information to the Chinese people as we could through the Google search engines, in spite of the fact that we also are self-censoring material which the China government tells us we are not to exhibit. We had an agreement with them and took seriously that when material is discovered which we are not supposed to present, we show that there is suppression is taking place. You can see from the response coming back from Google.cn when there is an item not coming back. We say we are suppressing this at the request of the Chinese government. We also chose not to offer certain services in China. We didn't offer Gmail. We didn't offer blogging. The reason we did not do that is that we did not want to have materials on our servers that the Chinese government could ask us or insist that we reveal in order to identify individual parties. So we chose deliberately not to offer certain services in order to protect the interests of the Chinese people. With regard to the court case in the US in which we were demanded we resisted this because we were trying to protect the interests of Americans who were using Google. And so think our actions are actually consistent, not inconsistent, in the sense of protection. In the case of the subpoena that came to Google, we fought that for several months until we got to the point where we were able to provide information that was not in any way compromising. It was a substantially smaller amount of information than was originally demanded.

NIK GOWING:

Can I ask you one question about the massive bargaining power that a company like Google, Microsoft, Cisco, and others have to change the terms that host governments offer, in other words, to change the mindset, we're here talking about openness, thinking of ways forward. Do you believe you have bargaining power?

From the floor:

That it is probably not consistent with our view that we would use or even feel that we have power to force change. I rather like the comment of engagement. I like the idea that you bring information to people, you bring opportunities to produce revenues that wouldn't be available. In the case of Google, we've split revenues from advertising with parties that have information on Web pages that draw people to it. So I would rather think that the company can bring persuasion in the form of economic development rather than trying to use some form of market power in order to negotiate.

NIK GOWING:

That's not quite my question. The fact that you are significant players, does that give you more leverage in persuasion?

From the floor:

I honestly do not think so. And the reason I don't think so is that in the particular space that we operate, it's a highly competitive space. And if we don't deliver, for example, what people are looking for, people will go elsewhere. So I don't see this as having the same form of leverage as the concern that was expressed about access at the local loop, for instance, where you were talking about the ability to absolutely control. So, no, I don't see the same kind of leverage.

From the floor:

I am from the Iranian government. I should say that we have a shared value with other governments. And I would like to mention that regarding to the concept of openness, it

is firmly integrated with the concept of other values, like security and ethical dimension of information society. In cases of conflict between these values, we should not sacrifice one value for the sake of the others. The second problem is how should we solve the problem of conflicting meanings and interpretations of certain values in various countries which have their own understanding of these values? In a fruitful dialogue we should recognize different values and different laws. If we want to solve the problem, you should pay attention more to the different points of view and different laws of different countries.

ANRIETTE ESTERHUYSEN:

You need a holistic approach to openness. Limitations of freedom of information on the Internet happen not just in developing countries, it happens in rich countries as well. And there are other forms of social exclusion and silencing of critical voices than through censorship. However I don't think that we should make corporations responsible for securing our freedoms. I think there need to be laws, rules that ensure disclosure when they sell certain equipment or provide software.

From the floor:

Things like that happen in other countries, too, and it is just as bad. It seems like we Europeans are taking the high ground when in fact freedom of expression is under a lot of attack just in the EU. The Danish police now is going to monitor IP phone conversations. So what does that leave Cisco? Are they supposed to be allowed to sell systems that can assist the Danish police in blocking my phone call to my wife that is in Canada right now? I don't want this to be an excuse for China to do repression. It's bad where it happens.

NIK GOWING:

You are talking about double standards?

From the floor:

Today we have talked a lot about China, and that's rather strange. If we participate in forums like this, I think that we should spend more time reflecting on the issues that have been raised. There are lots of millions of Chinese that have no access to the Internet and our deepest hope is that everyone will have access in the future, so that they will be able to communicate and take part in these exchanges. We are here because we would like to promote openness. But we have not really raised the issue of how we could participate more fully and how we could have better access to the Internet. My second point is about cooperation with China with the aim to protect people. The Cisco case was mentioned. We are threatened by terrorism. I as a Chinese citizen feel that I need to be protected. There is a lot of tourism in China and we have to protect tourists in our country. We have to make sure that everybody can come to China and enjoy our beautiful country and to be safe. I don't think that we should be using different standards to judge China. In China, we don't have software blocking of Internet sites. Sometimes we have trouble accessing them. But that's a different problem. And I know that some colleagues listen to the BBC in their offices from the Webcast.

NIK GOWING:

May I ask you a question? How would you define, for those who are not familiar with your government's policy and the detail of it, what is the principle on restrictions of openness in China?

From the floor:

We do not have restriction at all.

NIK GOWING:

Would you like to elaborate on that?

From the floor:

How can I elaborate on it if we don't have any restriction? Well, some people say that there are journalists in China that have been arrested. We have hundreds of journalists in China, very few have been arrested. But there are criminals in all societies and we have to arrest them. But these are legal problems. It has nothing to do with freedom of expression.

NIK GOWING:

What was said from the Chinese representative that the BBC is not blocked, can you clarify the BBC's position on that?

RICHARD SAMBROOK:

I'm glad that our Chinese friend listens and reads us in Geneva, but if he was in China he would not be able to listen to our Mandarin service on short wave radio and not be able to read our Mandarin news site on the web. This is very effectively blocked for many years.

NIK GOWING:

I come back to both Microsoft and Cisco. Are corporations meant to be involved in securing openness and freedom to speak?

ART REILLY:

Cisco entered the market in China in 1994 and in 1995 there were about 80,000 users on the Internet in China. In 2005, ten years later, they had 130 million. This is a substantial increase in the use and the ability for the information to flow within China as well as across borders. As you can imagine, with issues such as worms and denial of service attacks, these are not unique to one part of the world. The need for capabilities to protect against the threats from viruses and worms and denial of service attacks exist and so the equipment that's provided in China is the same as elsewhere. I very much agree with Vint on the issue of the power of a company like Cisco exert influence. The market in which Cisco is involved is a very competitive global market. And in fact the equipment helps also to promote the free flow of information.

FRED TIPSON:

Massive bargaining power is an exaggeration, although we are actively exploring within the industry how we can better exercise our joint persuasive abilities in these areas. It's critical that we not portray the Internet as a threat to governments. The reality is in a country like China, the Internet is transforming the political culture. And for someone who has worked in and around China for 20 years, it's incredible to me how much is available when you search for it, how widely people are expressing their political views, often at great personal risk, on blogs in China and chat rooms and all sorts of other places. There are courageous people who are pushing the envelope of politics, but there are also courageous people in the Chinese government who believe in the importance of the Internet as a modernizing, educating force. There is not a monolithic

determination to suppress the Internet in a country like China. If we are serious about human rights we must be specific about what it is we are concerned with. The Yahoo! case is a classic example. First of all we need to get the company right, but secondly, the Yahoo! case involved a situation where the police came to Yahoo! and said, "We believe that there's a criminal sending e-mails across your service. We want to know who he is." Yahoo! servers were located in China. If they had turned them down, all the people would have been arrested, they probably would have been thrown out of China. Now, it could be the position of human rights organizations legitimately to say that should be the result for Yahoo!. They should not be doing business in China if it means they put users at risk. The fact of the matter is Yahoo! didn't know this was a journalist. Yahoo! didn't even know he had gone to prison. You don't know when the police come in whether they are after a journalist, a pedophile, an IP polluter. And no country in the world gives you that information. In fact, you are required in the US and in the UK not to inform the person the police are looking for when they come in seeking information about that person. In China and virtually every country in the world we are moving towards a situation where they are going to require that personally identifying information is available to the police authorities in that society as a condition of doing business with their citizens. That is the trend. Not only that, the trend is for governments to say you must retain this data in available form for at least two years in the case of some of the discussions that are going on in the US, to make it even easier for the government under legitimate circumstances and due process to get access to this information. That's the reality of human rights challenge that companies have in trying to do business not only in restrictive societies. There are balances being struck and challenges that we need to address. Obviously there are in certain countries the effort that's going towards restrictiveness is much greater than in others. But that's a conversation we need to have, because you would be surprised when you look country by country at what's restricted how many subjects and how many countries have restrictive regulations.

NIK GOWING:

Milton Mueller of Syracuse University points out the effectiveness of corporate codes of conduct in influencing state behaviour, using examples like South Africa and the fight against Apartheid in the '80s. Is that something you can use as leverage?

FRED TIPSON:

I think the Apartheid case is one of the most important examples. In the case of Apartheid, the companies that were defying the Apartheid system were really able to do so basically within the sphere of their own operation, to treat their own employees inconsistently with the requirements of Apartheid. The Sullivan principles were a set of principles by which companies agreed to do that. That's a very different situation, or the sweat shop situation or the oil companies and the voluntary principles, from the situation where the government has specifically decreed the way in which companies should operate in a given country and to act inconsistently with that is to invite being de-licensed and therefore unable to provide service.

CARLOS AFONSO:

I remember a hardware maker in California who used to say, look, my packet sniffer is the best on the market, but I sell it to anyone. The way they are used is not my concern. And this is the packet sniffer AT&T uses to sniff and copy data on gigabits per second speed in the US. And a phone company in Brazil does the same to sniff and peek into packets of heavy traffic in Brazilian Internet exchange points. The point is what is the responsibility of network operators? Network operators are feeling the gap in terms of

regulation regarding what can and cannot be done because they have gone up one or two layers. They are now into transport, they are now into content. And there is no regulation, because the only thing we have regulated internationally with an international framework is at the level of telecommunications in the ITU. Nothing else. And what happens is that these guys start to regulate themselves and start to block any kind of streaming traffic they decide should be blocked. What is this responsibility of these network operators? What is the regulation we should establish? What kind of regulation we can establish that does not interfere or goes against certain cultural values and the basic differences that exist from one society to another? We know that the illegality of child pornography is a consensus, but what are other aspects of freedom of information that should be considered and can be accepted universally? What is the responsibility of the network operators? Cisco is just a hardware maker and seller. Now we are losing more and more of the interactivity on the Internet because interactivity is being done in their own terms, not our terms as users. They decide if VOIP traffic can pass through an exchange point or not. And it passes with what speed, what quality of service? We are not allowed to talk to them about what policy they are using and what regulations should be established to guarantee that the flow of information which passes through these networks is really warranted, is the responsibility only of the users who generated this content and not a network operator.

JAMIE LOVE:

I think there is sort of a deep hypocrisy of surprise when these instruments of surveillance are used as government surveillance or even corporate surveillance. There is this massive development technology that's designed to track information, put fingerprints in information, know who does what, on a scale that we have never had in the history of mankind. Then people are kind of shocked when people sell those things as products and people actually use them in ways that are just completely predictable. I have been in discussions with the State Department about digital rights management systems where we said don't you think this is going to be used in a certain way? And we have mentioned China. How can you ignore the consequences of developing these kind of monitoring technologies outside your border? The same thing is to restrict access to encrypted, secured communications. There is sort of an opposite thing to protect technologies that actually promote privacy and anonymity. A lot of it is related to intellectual property rights. In order to protect intellectual property rights we are creating a world that creates opportunity for political surveillance because it's hard to disconnect the two technologies in a way. Europe and the US don't have a hell of a lot to do with the way things are going because they push things in a certain direction.

JOICHI ITO:

It is very important to understand the repercussions that laws and technologies that we are creating to protect assets have on other countries. The US has a strong lobby for software patents for Hollywood type content. And there are many laws and technologies being put in place that will inhibit the ability for people to freely share content. It starts leaning into a world where a copyright holder says to another person I would be happy for you to take this DVD and turn it into a classroom project. It's illegal to take that information off of a DVD because you are circumventing copyright technology. And that's one of the basic things inside of the DMCA. A lot of the laws that we think of as rational because of the US context have severe repercussions when they are implemented in other places. And also the identification relates to the copyright as well. It's very difficult in some of these developing countries and emerging democracies to have free speech without some level of anonymity and it is very difficult to implement digital rights management and copyright with anonymity. This is a difficult discussion but

the key point is to think about the rest of the world when talking about copyright. It's open source software, it's scientific journals and their availability in other developing nations. Journals currently control the copyrights and it's very expensive and hinders science. Just about every aspect of free flow of information is now encumbered by laws, patents, and technology.

NIK GOWING:

Can you see laws catching up with the speed at which things are changing?

JOICHI ITO:

The biggest problem is that originally copyright law primarily was concerned with the business of publishing. And it was about copying. If you gave a book to somebody else, this was not under copyright. The problem that we have with the Internet is that every time you view something, you are copying it. When Google scans a book in order to make an index, that is a copyright violation. When you download something to view in your browser, that's a copyright violation. Suddenly, the sphere of influence of copyright is everywhere. I am not saying this is good or bad but Amazon is thinking about selling books by the page. And eBooks are selling books per view. And US publishers are critical that secondhand bookstores don't pay royalties and they want to have more control over this market doing it electronically. Maybe we should try to get the physical world to act like the Internet. However we see more and more control. The laws we have right now are in any way helping, and in fact, getting worse and worse.

NIK GOWING:

Do you see openness being constrained by the threat of action at some point?

JOICHI ITO:

It's already severely constrained, and it's just getting worse. There are two fundamental solution directions. One is to re-look at copyright law in the context of multimedia and then is creative commons, which is non-profit and where we allow artists to give choice. But it's very difficult because the economic interests of the past push against the economic interests of sharing.

ANRIETTE ESTERHUYSEN:

I would request the public sector to rethink what is the commons, what is the public domain in the world of the Internet. Most developed states have public libraries where citizens could read the newspaper, access box and journals. And these are absent in many developing countries. But the Internet presents an opportunity where, for example, all scientific research that's publicly funded can be made freely available. It's about rethinking copyright, looking for alternatives like creative commons, which gives the owners of content an opportunity to decide how they share it. We need to make very sure that in terms of access to knowledge and access to information, the Internet is conceived of and regulated as a space that can provide access to a public information commons.

NIK GOWING:

How much is an enormous organization like the BBC concerned about this?

RICHARD SAMBROOK:

First the public service broadcaster probably has a slightly different take on this to a

commercial organization because public service broadcasters are primarily interested in reaching out rather than generating revenue necessarily. Therefore, if people take use of our content, as long as we get some credit for it in some way, I think that's fine. In terms of building participation around content, we are actually seeking to encourage people to take our content and use it and do things with it. And we have a creative archive where people can take our video and repurpose it as they wish. The public have already paid for that content and invested in it.

NIK GOWING:

Yet the BBC has to protect its editorial integrity?

RICHARD SAMBROOK:

There are limits to it, clearly. We would take action against anybody who is using content improperly, inappropriately, in an obscene way or in some way harmful or damaging to other groups. But as a broad principle, people should have access to our content and be able to repurpose it.

NIK GOWING:

Do you think the BBC has achieved maximum openness for its content yet?

RICHARD SAMBROOK:

No. Nothing like it.

From the floor:

Access to information is becoming more expensive. How can we allow citizens of poor countries to have access? Otherwise, we will live in a feudalistic information society, where only the very rich will have access.

From the floor:

What we see is a complete closing of doors especially for those in education. In the Internet we do not have a fair use equivalent. People are criminalized in the class, parents in the house, and the children as well. And most of the users of Internet and those who actually need to broaden their knowledge find themselves at risk by accessing Internet. At the university level, we'd like to look into the resources for non-commercial purposes. An we have an interoperability problem here.

NIK GOWING:

Madame Trautmann, as former French minister of culture and now in the European Parliament, how can you see this contradiction being resolved in the immediate future?

CATHERINE TRAUTMANN:

This contradiction is quite difficult to resolve, because we do find ourselves in a situation of flux in terms of law. We have the production of intellectual artistic goods which are on the Internet and we have to change our very concept of what our rights are. Obviously, we can have a public domain in the Internet recognized as such. But we may have, perhaps, a paying service. When we talk about a free service it may not be a matter of the actual source; it may be a matter of the service that is provided that is actually furnishing that. So we have to see whether access to the service might be financed by publicity. It may be free overall, or you may have a sort of pay-as-you-go principle. This might work for certain types of information where you would actually pay for the service.

What about the author? Does the author renounce his rights? Is it a recognized freedom here? The other question is to know whether what we are doing in terms of pure protection and what we are doing in terms of remuneration of the authors. And the authors' rights would seem to be a binding obligation, incumbent on us. Are we going to stem any creative or artistic production here? The second point is that we must not actually hold back information and access to it. European regulation on this is only going halfway in terms of resolving this problem. What about the patentability of software? We're talking about total openness. But I don't think we're going to achieve that. We are looking for a route which will enable us to recognize in specific cases the possibility of protecting patents or protecting the intellectual property, but also developing at the same time open sources, open routes, financed by public resources with public funds. And this would mean sharing knowledge. This is important in particular for universities and schools. I think that we ought perhaps change the law. We ought to agree as to what we mean when we say "pirating." Pirating, in a sense, does make us face the issue of intellectual property rights. People aren't fully satisfied with our directive. We thought that perhaps we just should stop and think about this and see how Internet is developed and how the various services on the Internet will develop and see how consumers and users are actually serviced.

ANDREW PUDDEPHATT:

Copyright's is a relatively new invention in human history. Shakespeare never had the copyright over his plays. The copyright belongs to the publishers. And no one ever believes that Shakespeare's creativity was impaired by the lack of owning copyright to his own product. But leaving that aside, we are now moving into a different era where in the past, restricted information could be much more open and available to people. There have always been copyright libraries in the UK. Student at Oxford or Cambridge have certain privileges at the British library. You can go in and read any book published within the UK. There's no reason why countries couldn't take responsibilities for that so their population could use it. You have access to the information and sources that have always been available to a certain number of scholars and a certain privileged group. We need to look at the positive benefits of the new technology. The danger is we will see the growth of the Internet as an excuse to privatize even more information. I know professors at the London School of Economics, where I'm based, who no longer give out their reading lists to courses to general enquirers, because they take the view that if a student pays to come on their course, the student should have sole access to the reading list, let alone their lectures and the content. And that seems to me to be a terrible derogation of responsibility of a university to promote awareness and promote knowledge and promote the resources that ought to belong to the commons.

From the floor:

I would have liked Richard to have expanded a bit more on what I understand the BBC has been leading on this in the public service area, which is about making available freely archive material on the Internet, because it is already in the public domain. There is a vast amount of material that is already within the archives of very many broadcasting organizations. The concept of public service libraries is unique to Britain and Ireland. Since the 1950s it was essentially to disseminate information to those who were not in a position to access it because they didn't have the money or resources. And there is nothing changed today.

NIK GOWING:

Richard, can you clarify?

RICHARD SAMBROOK:

There are clearly some quite complicated rights issues around it. We make available the material to which the BBC owns all of the rights. A lot of our programming and content has other material embedded in it to which we don't have the rights. So we need to sort that out. But the principle is that because we are publicly funded, it should be freely available. The Internet allows us to make it more widely available, and, indeed, allows us, under certain terms, like in the Creative Commons license, not repurposed for commercial gain, for people to reuse that material if they choose to do so. And the justification for that is partly education. There's a creativity benefit to it, that it helps to spark innovation.

From the floor:

I would like to know how we find a right balance between intellectual property rights in terms of copyrights, and technological advancements subsequent to development. We are in an environment where we are getting copyright infringement just by a mouse click. Most of the information is in the form of digital rights management systems. How we hope we find the right balance. It's a concern for us in the developing world.

JAMIE LOVE:

Maybe one practical thing is the influential people on this panel express their support for elaboration of a treaty for access to knowledge on WIPO.

HANNE SOPHIE GREVE:

I would definitely want to endorse it immediately.

NIK GOWING:

How achievable is it?

HANNE SOPHIE GREVE:

I think it is very achievable. One example is research. Public funded research should be available to everybody.

JOICHI ITO:

I want to make sure that we understand that when you write a book or an article and somebody quotes you in length and criticizes you and uses it in some way that you don't like, you do not have the right to tell that person they can't do that. In our current social discourse, it is allowed for somebody to quote you and tear you apart. But in things like music and artistic works, we have a lot of more rights. Many documentary producers are being prohibited from using videos of the US President for copyright reasons. But now we can use little personal computers to edit video and edit sound, the editing and modifying of multimedia is just as much a part of the public discourse as text was. We have to understand that sometimes we give up rights. We give up the right to be able to protect our written work from being used against us. The young generation is using music and video in very creative ways and remixing this in a new culture. On the Internet there are many interesting political documentaries being done by amateurs which are not legal because of the copyright restrictions. We're inhibiting a completely new type of free speech that would emerge right now. With digital rights management and lawyers going around shutting down sites of people who are making these amateur videos we are on the wrong way.

JAMIE LOVE:

WIPO right now has a proposal for a broadcasting treaty, which they also want to extend to the cable organization. Chairman Jukka Lides has proposed, to create an intellectual property right over 50 years for transmitting information. This is coming at a time where, just as Joi mentioned, there's this explosion of creativity about how people use video for commentary, for political reasons, to create new social works. YouTube right now has become a huge source of political criticism. It's changing the way media works, because media right now, they'll say something on television, then they're ridiculed in blogs and people have taken little bits of what they say on television and they annotate them and juxtapose them. It improves the way people report on things because there's this sort of instant feedback. The problem is intellectual property laws. The lawyers are way ahead of in one world, but people are in a different world. WIPO has to send the message that the people are right and the lawyers are wrong.

ANRIETTE ESTERHUYSEN:

I agree vigorously. I think there's definitely a new concept, a new right. APC has just put in our Internet rights charter the right to share. And I think we need to look at how people can do that creatively on the Internet, and not just from the point of view of freedom of information, but also new business models, new ways of innovating. Piracy creates jobs, but open source and open standards create opportunity, create entrepreneurs. That's a challenge for the IGF to look at the Internet as a public space, and how can we facilitate maximum sharing, maximum creativity, peer production, new models, innovation. I have a lot of respect for Microsoft's efforts to provide educational content in developing countries. But as long as they copyright and limit the right of teachers and learners in those countries to reuse and change and share that information, then there's very limited value to that. Sharing and openness is absolutely essential if we're going to use the Internet for development.

NIK GOWING:

But what about the constraints?

JAMIE LOVE:

I don't see it. Look at what's happened with Wikipedia. People just create their own encyclopedia.

NIK GOWING:

Yes, but some of us have an experience where what is written in Wikipedia is often wrong, it's inaccurate, and you want to correct it very quickly.

JAMIE LOVE:

It's more often to be more contemporary and more illuminating than what you get in a published book. I think the quality is quite good. The sort of role of people in creating content is quite important. That's what the free software movement's about. People are concerned about monopolistic problems, lack of transparency in the code, all kinds of confusion about the software, the security of software. And what do they do? They basically have taken over a very strong position in the mid-tier server market by creating their own industrial-strength server. The Internet was based on people creating their own applications that they couldn't even get from commercial companies in a lot of cases. And it's worked well with commercial software. So I think that there will be free content. DRM and software patents represent threats to this new movement of

openness and people creating their own products. We have a listserv that is illegal under the copyright law because we routinely publish information. Developing country negotiators, NGOs and citizen groups all over the world organize on access to medicine issues. It's been a great movement. The glue that holds it together is the sharing of information. A lot of it's copyrighted information. If we were to abide by the actual law or if companies could put DRMs to prevent us from doing it, then you have to subscribe to these really expensive services. You wouldn't be able to keep up with what's going on. People would not be as well informed. And a lot of big decisions go wrong when people don't have information. There are costs that society pays when people do stupid things and do things because they don't have information.

RICHARD SAMBROOK:

For a public broadcaster, the issues are slightly different. And it's shifting. We've made certain moves within the BBC to try to open up as much as our material as possible. But I think if I were to try to speak on behalf of some of my commercial colleagues like Reuters or AP, I would say that, that this does undermine the business. They make their business by selling that information. And if you undermine the business, you undermine the amount of information that's available. If Reuters can't afford to sustain their hundred-plus bureau and their however many reporters and camera crews, the world will have less access and less information. There are genuine rights issues here. And I'm very sympathetic to the notion that says there's this fantastic burst of creativity and information and people need to be free to repurpose it. But there are genuine issues underlying that about what supports the production of that material and the ability to support and develop that material. The second point is the integrity of the way that it's repurposed. That will depend entirely on what the material is and on how it's used. But to use Joi's analogy, if you take a quote and then attack the writer because you have a different point of view, that's one thing, as long as you keep the integrity of the quote. But if you set out trying to suggest that the quote is saying something different from what it says in its original context, then you'll be in trouble.

NIK GOWING:

What about user generated content?

RICHARD SAMBROOK:

We've see with the London bomb attacks and other occasions where people now send in their videos. There are hundreds of thousands. That's an explosion of material available to us. In some ways, we've always used material from the public. The technology has enabled an explosion of quantity, which, of course, is a fantastic resource. Secondly, there's the question of how you integrate opinion into mainstream media content. We've always done that, traditionally with telephone phone-in programs. Now you integrate blog opinion into mainstream news and you're seeing sites like news vine and others. The "Washington Post" and the "New York Times" try to do it from the other direction. Integration of user opinion with mainstream content is going on. Thirdly, some people simply make content, which becomes broadcastable. YouTube is one example where there's just great content being produced and available. Fourthly, there's network journalism, how you use the collective expertise of the public to better inform your programming and your journalism and your content. There's a whole range of user content there. And Internet technology is driving all of that forward. There are some editorial, legal and rights issues. But it is forcing organizations like the BBC to open themselves up to the public and to this burst of creativity and innovation.

FRED TIPSON:

We should be lobbying governments to promote the interests of our users in freedom of expression and access to information. I assume the question probably arises with respect to the Chinese example. The most serious problem we've had in China for years is the piracy of our software, which has been traditional over 90%. And through our intensive lobbying efforts of the last ten years, we managed to get that down. We made also substantial progress with the Chinese in the recent round of negotiations with the US government, where they've committed to legalizing the software that's used by the government, which is a large share of the software in the country, and to insist that any manufacturers of computers ship computers only with licensed software on them. The Chinese have made significant progress. The Chinese are now in a position to innovate in a way which creates for them an opportunity to utilize intellectual property protection for economic purposes of their own, and that, in fact, there's a tipping point in the case of many societies in which the attitude toward intellectual property protection shifts when countries do develop industries that have their own innovation.

NIK GOWING:

You mentioned China. We should remember a large number of other countries where there is significant restriction, where there isn't the economic power, but there's an ambition to use the new technology to get on the Internet. What about those countries?

FRED TIPSON:

We think it's fundamental to the service we're providing users in those countries that they have the ability to use those services to the greatest extent. It's both an economic incentive, although we don't make much money on those services. But it's also fundamental to the way we see what it is we're providing to customers, that they be able to communicate without fear of restriction and prosecution.

ANRIETTE ESTERHUYSEN:

Particularly for developing country governments that have limited capacity, they need to prioritize the interests of their citizens. There are large corporations that are very powerful lobby those governments to prioritize the interests of those corporations. As a South African I resent the fact that my government that has a huge crime-fighting burden if it has to spend time and money, my taxpayer money, in prosecuting people who pirate Microsoft software licenses.

CATHERINE TRAUTMANN:

I have to say as a parliamentarian and an economist that we have greater expectations from our big businesses in Europe. I think that we should make progress and clarify what is the responsibility of these companies and see how we can define these. Big business cannot systematically use the competition argument in order to restrict openness, either for service providers, for private or public companies, because everything costs. The Charter on the Digital Ownership adopted by UNESCO, is of special importance here. And Article 10 says the manufacturers, the editors, the producers, the distributors of digital documents and other private sector partners should cooperate with libraries, museums and other organizations or institutions which are responsible for public content. They should cooperate with those who provide free information to the public. We feel that this is an absolutely vital condition which should be respected.

JAMIE LOVE:

It's interesting in the US that there's been a shift by big corporations, including

Microsoft, who are now lobbying the US for weaker patent laws in the area of software because of the eBay suit and the Blackberry suit. There has been a lot of litigation where people have felt that a very strong exclusive rights regime is not necessarily a good thing in the area of software and high-tech industries. Our own research shows the more often you are listed on the US 301 list as a violator of IP, the better you do in terms of the human development index.

CHAIRMAN ROUSSOPOULOS:

Why are we all discussing the need for free access? It means that we agree that information is knowledge and knowledge is power. Publishing is at the heart of truth. Knowledge and information make you strong. This means we need to guarantee access to the net. But it's not just facilitating access. We should also facilitate the creation of an information source. This means giving anybody the opportunity to create a site or a blog and transmit information. Anyone can use parts of a quote or a statement and put them together in a way which changes the picture. The problem is where is the limit between freedom and abuse? That's a very fine point to pick.

From the floor:

I am from Kyoto and the Japanese news agency, based in Geneva. Maybe I am too naive to put this question but I am just wondering that if one of you have any idea to prevent the Internet from becoming a free marketplace of defamation and insults and may those statements be anonymous?

NIK GOWING:

How do make that balance?

JOICHI ITO:

I feel quite strongly about this. I am a fairly high ranked blogger.

NIK GOWING:

What is a fairly high ranking blogger?

JOICHI ITO:

Search engines rank pages and give them authority. So when I write about Diet Coke, I am on the first page of results. And the search engines actually provide certain bloggers with more voice by giving them ranking authority. I have more Google ranking than, say, the Asahi newspaper in Japan. The high ranking blogs are quite responsible. People don't link to lies. There is a lot of self-selection. And a blog becomes more influential is the blogger feels the responsibility. If I make a mistake on my blog, like I wrote about China once, I had 150 comments in one day and I answered every single one of them. More than half of the bloggers tear each other apart for factual mistakes, much more so than mainstream media which I think tends to sometimes pamper each other. I don't think that bloggers are replacing mainstream media. I don't have people protecting me from libel. I don't have the funds to go to Sudan if somebody insults me there. We're very complementary to mainstream media. What we do is we check mainstream media. More people are reading global news than ever before because of blogs. When somebody is going to write about India, they will link to an Indian newspaper rather than Fox News. So it is increasing the literacy. And it is all about media literacy. You made a point about Wikipedia. If you find a mistake in Wikipedia, you can change it. If you find a mistake in Encyclopedia Britannica you can't change it. In Wikipedia you can go back and see the history, and it's all whether you understand Wikipedia enough to use it or

not. And it's the same with blogs, because you will find lies in blogs, but if you corroborate all of the things, you are much more likely to find fact than if you are reading only one local newspaper.

NIK GOWING:

Minister I have to put this to you because there are many questions about this, and about the Greek blogger who has just been arrested for defamation. How you can arrest a blogger for defamation in an open environment which is being encouraged.

CHAIRMAN ROUSSOPOULOS:

Well, I'm not aware of this case. But what I can state is that over the last period, we have had to face various bloggers who make any kind of references really untrue statements. In fact, these lies get on television and on other media which are widely followed in my country. So we have a problem with bloggers who spread lies through television. What we need to guarantee in a democratic environment is to respect professional codes of ethics and international rights guaranteeing the rights of everyone, but also giving the opportunity to freedom of expression, but also to the truth. Because there are people who are not politicians or business representatives but is the victim of slandering or defamation. How can this person deal with statements, untrue statements, made by a blogger against him?

NIK GOWING:

Are you suggesting that there now has to be a code for bloggers which everyone has to sign up to, almost like journalists?

CHAIRMAN ROUSSOPOULOS:

I am reflecting on this. We have bloggers and "bloggers", that create false news and disseminate false news. When you have a blogger who creates a piece of news, anyone can send an answer. So what we found out is in some cases you cannot answer these blogs because people use the cover of being a blogger to create a site which can't be answered. You can't send your answer to the site, and these answers you send cannot be seen by anyone. Perhaps a code of behaviour is an idea. This is not a proposal I will be tabling this today. But it is an ethical point. In democratic societies we have to follow democratic principles.

CARLOS AFONSO:

I just want to give an example of the recent political campaign in my country, Brazil, if we were to arrest bloggers, we would have about 800 people arrested. Maybe we have been good students of democracy, which have been originated in Greece, that we did not do that. They have not been arrested. However, slandering has been incredible.

HANNE SOPHIE GREVE:

Freedom of speech is not without limitations. There is something called hate speech. And speaking up against a nation or individuals, religion, whatever, or old Nazi ideas is not suitable for the net or anywhere else. And it is not permitted. So hate speech, we may draw narrow lines around it but it is not permitted. It is not part of the freedom of speech. We have come to the understanding internationally that if you would give a specific group, be it a Nazi group, be it Ku Klux Klan whatever, you would easily have a very, very difficult task to stop violence. And we have a primary obligation to respect the life of others.

JOICHI ITO:

We need to think about what we are as a democracy. While force may have been the most important thing in the last century, information is going to be exceedingly more important today. We were talking about censorship earlier but we are creating technologies that provide everyone with voice. If we are unable to win the arguments in the public debate and allow a free competition of ideas, we are not about democracy. When we censor hate pages is this the way we promote our ability to win the argument in public? Why not focus on making our voice louder and more convincing rather than trying to stifle the free speech of people we don't like?

From the floor:

What about international terrorism? Would you defend unequivocally free speech in the Internet ambiguously without any restrictions whatsoever? You would not tolerate it in your own jurisdictions. There are laws. Are we to retrench, go back on all of the case law, on all of the experiences we have had over the last 50 years simply because we have a new means of communication internationally? Do you really believe that if we speak louder that we will drown out all these other voices? There are laws in your own countries which prevent this. Why should it be any different on the Internet? The Internet is not above the law.

ANDREW PUDDPHATT:

We accepted the International Standards on Freedom of Expression which do have some limitations. And I think you need to be wary that the Internet can't carry a US based first amendment standard in opposition to the generally accepted standards of Article 19 and international human rights law. The key problem is that national jurisdictions can't exercise legal authority on the Internet. At this stage, the challenge for us to act responsibly to promote good speech, to counteract bad speech and try and raise in a self-regulatory manner towards the best possible standards. Surveys that we've done show that the Internet is the least-trusted news medium in the world. It's less trusted than television, radio and newspapers. And that is because of the people's suspicion that the Internet and its unmediated form does not carry accurate, good, up-to-date information. And it's the responsibility on those of us that see the potential of the Internet to show how we can develop standards and quality of information that match the best of the major broadcast media.

From the floor:

Why can't there be an international consensus among states? We already have it, for example, for hackers who spread viruses. There's a classic example of a gentleman that was traced back to some small village in India by the international community. There's an international consensus on the prevention of child pornography and of pedophilia on the Net.

ANDREW PUDDPHATT:

There are countries where the state and symbols of the state and nation are protected. If you attack or criticize that country, you're accused for defamation. That would be unacceptable in many other jurisdictions where defamation only applies to individuals and their personal reputation. The idea that you could develop a standard on defamation as an agreement among states at the moment I think would be extremely fraught.

JAMIE LOVE:

If the quest is to eliminate any falsehood that could appear in anyplace on the planet you live in a pretty boring world. And you wouldn't really see much. If you asked me, do I trust the average thing I see on the Internet probably not. But looking at average is the wrong way to think about it. There are areas where you have people who are well known. They have a lot of authority. They have more authority than you can possibly imagine in their areas of expertise. When you see a news report do you know is that true? I better go to the Internet and see what people are saying about it, because that's where you actually get kind of a reality check. There's a sort of an old school, new school, old media, new media syndrome where people represent these distributions and voices. More speech is a solution to problems. There will always be exceptions. Libel is illegal in almost every country. At the end of the day, what's more important is education, getting people to become more knowledgeable rather than try and keep information from them.

NIK GOWING:

What do we have from the Online discussion?

From online participants:

Most of the interest has been around Google in China, and on the blogosphere. Bloggers were rather worried. Some people complained a disparity. There was a lot of China-bashing going on, whereas other issues have been ignored. Karl Auerbach wants to know while Google has a great value, is that sufficient to overwrite the rights of authors to profit from their own creations. Is the bashing of corporations and what they're doing in China, whether that's right or wrong? And, finally, to get back to the Greek blogging case, they're saying this is a disgrace, he shouldn't have been arrested.

NIK GOWING:

Can I just ask now Adam Peake from the Center for Global Communications in Tokyo what are you taking away from this? Bringing all the stakeholders together is an experiment. Has the experiment worked ?

ADAM PEAKE:

Yes, I think the experiment has worked very well. The breadth and the depth of the issues have been far too broad to try and capture in any summary now. So I'd like to remind everybody that there are transcripts that are available that have been coming on the screens. And those will be online. And we also have Web casts in all the other languages. I think we've done an extremely good job in this panel. We've talked about freedom of expression and are those freedoms under threat. We have concentrated rather heavily on the China aspect. We could have looked a little bit more how developed countries are doing. The US Patriot Act is now duplicated in many European countries and it has a lot of restrictions affecting freedom of information. Generally, the idea of the need to rethink content and how do we gain better access to the content that the Internet enables. The Internet is an open platform where any one of us can be out there as content creators in rather unique ways. So we do need to think about how we can we use the Internet to help people gain greater understanding and knowledge.

NIK GOWING:

The final word has the minister.

CHAIRMAN ROUSSOPOULOS:

The key issues today ware to reinforce democracy on the Internet, social cohesion,

protection of free expression, as well as intellectual property rights and censorship. Another issue were enhanced transparency of government procedures in this field. Transparency for all procedures of administration and of government is a very important element for any democracy. And democracy is linked t ethics. When we say "ethics," that is something there comes from the Greek word "ethos," and it is true to say that this is the strongest unwritten law through time. In Greek, we would say deontology. Ethos and democracy is what we are all aiming for. Quality is not determined by the quantity of information. Having a lot of information does not always mean that you have quality.

## 4. Security

### Chairman:

- **Ioannis Tsoukalas**, Secretary General of Research & Technology, Hellenic Ministry of Development

### Moderator:

- **Kenneth Cukier**, The Economist

### Speakers

- **David Belanger**, Chief Scientist, AT&T Labs
- **Lamia Chaffai**, Director General, Tunisian certification agency (ANCE)
- **Ilias Chantzos** Symantec, Head of Government Relations, EMEA & Chair BSA Europe
- **Chengqing Huang**, Deputy Director, CNCERT/CC, China
- **Gus Hosein**, Information Systems Group, London School of Economics / Privacy International
- **Rikke Frank Joergensen**, Danish Institute for Human Rights
- Prof. **Henrik W. K. Kaspersen**, President of the Council of Europe Cybercrime Convention Committee
- **Arkady Kremer**, Chairman, Russian Association of Networks and Services
- **Andrew Maurer**, Deptsrtment of Communications IT and the Arts, Australia
- **Malcom Harbour**, Member of the European Parliament, UK
- **Terayasu Murakami**, Nomura Research Institute (NRI), Director of Tokyo Club Foundation for Global Studies, Acting Chairman of eCommerce Working Group of Nippon Keidanren and Business Steering Committee Member of the GBDe
- **Frederico Neves**, CERT.br (Brasil), member of ICANNs Security and Stability Advisory Committee (SSAC)
- **Richard Simpson**, Director General, E-Commerce Branch, Industry Canada

- **Christiaan van der Valk**, Vice President, Compliance Trustweaver

IOANNIS TSOUKALAS:

The question of security is one of the more fundamental issues related to use of the Internet. And it's an essential cornerstone of its functioning.

KEN CUKIER:

Information security is something that we all rely on. It's probably something we all take for granted. But it's probably the most important aspect of the information society. Unless the networks are secure, unless we have confidence in it, we don't have an information society. It might be important for you all to know that right now you're using a public Wi-Fi access node. Probably all of your data is unencrypted. So if anyone had a packet sniffer, they could identify what the traffic is, certainly what your password is, if you did eCommerce. Some of your personal information, maybe your credit card details, would potentially be exposed. Of course, if the security of the infrastructure is strong, if you're using encryption, and 99% of all Web sites that do take your credit cards would be using that encryption, you'd be safe. But the remaining 1% probably is intolerable, if you think about crime online. If you're connecting to Appollon, then you are probably using the hotel's Wi-Fi. But if you're using the free public Wi-Fi there are two seemingly Wi-Fi nodes that aren't really a Wi-Fi node. You have a system on your computer, if it's open, that you would see whether it says the name of the hotel or if it says "free Internet access" or "free public Wi-Fi." Those two terms are actually computer-to-computer nodes. Someone has malicious code on the computer. And for the unsuspecting user, they could be transmitting data to someone who is then passing it on to someone else. This is a good example of the fact that security is a big issue and that the security and the hardness of our infrastructure needs constant improvement. Lets ask the panellists what is the most important issue facing security in their view.

DAVID BELANGER:

Key for me is integrity of the transmissions that are going over the network, so that middlemen can't add to it or detract from it and confidentiality in the face of an intelligent adversary.

LAMIA CHAFFAI:

The Tunis Agenda calls for the creation of an environment of confidence for electronic exchange. The development of services is something on which the development of a country depends. And to develop eGovernment, eCommerce and other e-services we need to foster this confidence, also via electronic signatures.

ILIAS CHANTZOS:

What we try to do in Symantec is try to empower people so they can safely work and play in the connected world. We have find ways to respond to changing patterns. Hacking is no longer for fame. There's a financial motivation behind a lot of cybercrime. All stakeholders, both private sector, government, and civil society, have a role to play in addressing that.

GUS HOSEIN:

I'm a little perplexed by this emphasis on security the way it is defined here. And it's usually at the expense of other issues, such as privacy. When do you actually identify

yourself online, how do you do that? Does it actually increase the problems of security or decrease them?

RIKKE FRANK JORGENSEN:

In the WSIS process there was a tendency to see privacy and security as two opposing issues. It's really crucial that we understand that privacy protection of the individual is a security measure. It's really a security of the individual freedom, and it's a very key component in a free and open society. So whenever we discuss security measures here, it's very important that we have privacy protection up-front in the way we deploy and design these measures.

HENRIK KASPERSEN:

I have co-responsibility for the development of the Council of Europe Cybercrime Convention. Technical security measures are extremely important. But also legal security should be a very important element. The Cybercrime Convention sets rules for behaviour of individuals in the Internet.

ARCADY KREMER:

We have to see security not just as our own objective, but as the means to defend the Net. This will allow us to work in a more precise and stable way. The issue of information security is not a service or a good that can be traded. It is a system which has to be set up and which is necessary to manage.

ANDREW MAURER:

We developed the Australian spam legislation as well as looking at various other eSecurity matters such as phishing and spyware, Botnets most recently. I would like us to have a look at security as a positive construct rather than just a reaction to the current crop of eSecurity threats that are out there. So in terms of capacity-building, considering more could be done in order to ensure that transactions are secure, that personal data is kept protected, and that computer resources are used the way that the users and owners of those resources want them to be used.

MALCOLM HARBOUR:

I'm a British member of the European Parliament and also a director of the UK-based Parliament-industry group. Our views are that the issue about raising the confidence of users of the Internet in its security and in its integrity is a crucial task for all of us, and it's a shared responsibility in every sense. It's a responsibility of the users themselves. Industry clearly has a crucial role. And, indeed, industry is putting more resources than anybody else into this. Governments have a role, but there is a crucial and vital role for intergovernmental collaboration.

TERAYASU MURAKAMI:

I am with the Nomura Research Institute and represent the Keidanren Japan Economic Federation. Keidanren submitted proposals to the IGF with one best practice and one worst practice. The basic message underlying those two cases is, we should pay more attention to the victimizer's side rather than victims' side.

FREDERICO NEVES:

I am the CTO of the Brazilian registry .br. The principal issue that we should try to address is the network security on the edge of the networks and routing to.

RICHARD SIMPSON:

I'm director general for eCommerce at Industry Canada. We look at the subject of security from an economic growth and marketplace perspective. I think everyone in this audience is aware of the growth potential in the online marketplace internationally, which is now trillions of dollars in net worth, and nationally in billions of dollars, growing at a very significant rate. We should look at the issue in a more proactive rather than a defensive and reactive way. We should be less focused on short-term threats and on cops-and-robbers approach to net security and more on longer-term, preventative measures which can deal with this issue of the protecting the online marketplace well into the future. There are significant roles for government in terms of the legal and policy framework and for the private sector in terms of network engineering and other aspects of the physical delivery of the Internet.

CHRISTIAAN VAN DER VALK:

I am a cofounder and vice president of a small Swedish security company and also co-chair of the ICC Task Force on security and authentication. One of the issues for me is the quality and quantity of legislation and its impact on businesses. We've heard already how business has to play an important role in development of trust on the Internet. It is national legislation, usually impacting businesses in various areas: corporate governance rules, privacy, electronic contracting, taxation, customer rules etc. affect businesses. We're coming now to a point where this could become counterproductive and impact security negatively.

KEN CUKIER

We've heard generally big-picture themes on what some of the issues are for security. If we were to come up with just an inventory, we would see issues like spam, phishing, viruses on the individual level. From the idea of critical information infrastructure protection, we would have big network security issues in terms of undergirding, the security of the domain name system and other things. Let me turn to the audience and ask for additional questions.

From the floor :

I am from Moscow University. We should look into the issue not only about threats coming from criminals, but also threats from the state which use information technology and threats from criminal actions by governments.

From the floor:

I am from Sudan. Security on the Internet can only be decided through international cooperation. We need to find an international framework where we could cooperate.

From the floor:

I am from the IT Ministry of Pakistan. In our country we faced a breakage in our only Internet C-cable two years ago. That one breakage by a very innocent fishing trawler caused a blackout for three days for the entire country. There are physical threats to the infrastructure or even electricity blackouts can cause a tremendous loss of confidence in the use of IT.

From the floor:

I am fro the Prime Ministerial Service on Development of the Media in France. How we take into account particular characteristics of linguistic diversity in the security?

From the floor:

I am from the Committee of the Future of the Finnish Parliament. We have a draft law dealing with National Health Data Bank which raises an ethical problem. Who is the governor of the National Health Data Bank where the whole history of all your medical treatment, your medicine and everything is stored? Who gets the right to control and to access it: The patient, the professionals, the doctors or somebody else?

KEN CUKIER:

We have a huge inventory of things, probably too long. Can we identify where the baseline degree of security is that we can be comfortable with?

TERAYASU MURAKAMI:

We did a study in the process of developing the ubiquitous network paradigm. What will be the challenges of the network society now and in the future? In that process, we identified ten different categories of the issues, and ten different challenges in each ten categories. That makes 100 challenges we are facing with. Virus, Spam, phishing, and unauthorized access are only four of 100. We have another 96 source of headaches.

MALCOLM HARBOUR:

The security problems are growing faster than we have the systems to cope with them. And that means that we have to talk about ways in which we're going to step up international cooperation. Do we need new international legal frameworks? The big issue that we need to talk about is how we're going to step up our exchanges of information on a timely basis, and to present information to each other in such a way that you can actually do something with it quickly and effectively. The European Network and Information Security Agency (ENISA) is a mechanism of exchanging information to be able to do that, but member governments still are doing a lot of collaboration among themselves. The Internet Watch Foundation shows what could be done in specific areas like child pornography.

ILIAS CHANTZOS:

The growth that we have experienced in the Information Society is there because we're actually doing quite well. On the other hand, we need to face a fact that the success of the Information Society means that there is money there and criminals follow the money trail. That's how it works. People rob banks because that's where you put the money. Information security is not just a product. It's not about technology. Information security is a circle. It's a holistic approach around technology, people and processes. And often the people are the weakest links. We cannot have 100 percent security. Security is an evolving target. The bad guys see the technology and see an opportunity. We are covering up, we are protecting our technology. But since there is going to be another switch, there will be vulnerabilities found and they will move there. Collaboration, coordination and an international approach is a key.

GUS HOSEIN:

When we say international cooperation what does that actually mean? Sharing of information? What kind of information are we talking about? Are we talking about people? Which people? People working within companies? Users? We need to get into the specifics to really understand how complex this field is. Let's use an example. We all agree to some extent that countries must cooperate to combat crime. But then the US puts in a request to a French ISP for information on a suspected criminal. But months

later you find out that the US was not investigating child pornography or terrorism. They were investigating gambling, which is illegal in the US but not illegal in other countries around the world.

KEN CUKIER:

Do you think because there is this conflict of law, that not every culture deems the same thing legal and illegal, that network security in this respect, the case of information sharing, is just impossible?

GUS HOSEIN:

I think it has to be done with great care. I think we can make a problem worse before we make it better. I think we are going to decrease confidence. When people heard during the EU debates about data retention, that the data from ISPs across Europe could be sent to the US, people were concerned. That actually created a lack of confidence in European Internet policy.

CHENGQING HUANG:

We must increase international cooperation for network security. We have experience in this area, especially when dealing with network emergency incidents, quick response through international cooperation is very effective. For instance, our organization, CNCERT/CC, we cooperated with US, Australia, Japan, and other countries. We have effective mechanisms. In July 12, we received a report from Korea that an IP address falsified domain name and it spread virus. We found out this address and closed it. August 29, Australian authorities reported to us that we have IP address which is sending Spam. We found it and closed it.

HENRIK KASPERSEN:

Infrastructure security is a dispensable tool and it should be protected. That's one thing. The second thing is that we protect users and their systems from misuse by other users of the system. It was said that we might need to reverse the legislation to deal with it. I'm not sure about it, because when we want to have legislation in this field, we should first agree whether this is something we can leave to the private sector, or is that something where a government should interfere? What is the need for such an intervention? The Internet is organized by private industry, and we should maybe more address the responsibilities of the actors in that field. And the actors in the field are providers, software industry, and so on. But there is also a responsibility for the individual people. When we're talking about misuse of the Internet facilities, then we might deal with a typical task for governments where they would like to criminalize or provide sanctions for that misuse. Here I see a need for international negotiations about common standards.

FREDERICO NEVES:

The network is growing in a tremendous rate, not only in the developed world but but in particular in the underdeveloped world. New users should receive basic training about security. Most of the threats are imposed to the end user.

The end-user software is too complex for the general user today, and we are failing in this area. We should provide interface that are quite simpler. Besides that, basic training on basic security is needed. Why some people provide their credit card it in an unsafe way on the Internet?

RIKKE FRANK JORGENSEN:

The big problem is that a lot of users are not interested in security: People don't want to have to think much about it.

CHRISTIAAN VAN DER VALK

Security is a multi-disciplinary subject. In order to get to security you need to take into account the process, the network, the people, but also aspects of law and a number of other things. There are plenty of groups of lawyers that talk about privacy and security, but the different groups don't talk to each other. And there is no common process within the Internet world whereby lawyers, technologists and business process people get together and hammer out what needs to be done in order to actually beef up security. We certainly don't have a lack of international cooperation among governments. The problem is more cross-cutting.

LAMIA CHAFFAI:

Cooperation on development is very important. In the African region there are quite a lot of countries which already have a regulatory framework for eCommerce and signatures. Others are working on that. We need more harmonization for their legislation to ensure that they can participate and contribute to the international exchange on legal framework standards, modus operandi among certification bodies, training of human resources, awareness raising amongst decision takers etc.

HENRIK KASPERSEN:

There are two approaches: bottom-up and top-down. With so many countries it would be extremely difficult to have the ambition that it should be done top-down. So I would be very much in favour to do it bottom-up. That means sector-wise, and, if possible, through more regional organizations that would benefit the whole process. In the meantime, I would favour codes of good conduct of the actors themselves: network operators, access providers, Internet users.

RICHARD SIMPSON:

What we underestimate in this area is the degree to which there is mutual benefit across industry and across countries to making the Internet work effectively and ensuring the online marketplace continues to grow. One code of conduct that we were very successful in developing in Canada recently in response to the spam problem was a series of best practices for network management, which network service providers in Canada adopted. It later on became the basis for work at the OECD, and now there's a cross-OECD code of conduct along the same lines. This was helpful in cutting down the amount of spam initiated in our country through Botnets, primarily, because of certain technical arrangements that are made through this agreement. And if we had not put industry together to define their mutual interest in developing these standards and putting them into practice, we would not have had that success in dealing with spam, and the international community would not have had that model to work with.

ANDREW MAURER:

There are some constructs, like the OECD spam tool kit, which acts as a starter set of some policies. It puts forward some legislation. It puts forward some advisories on things like industry collaboration, technical solutions and educational material. It provides a bit of a kick start for almost any other country that wants to look at the problem and make some headway. Often it's very difficult to engage with these problems with no source material or no background to work from. So drawing on that sort of broader resource is actually quite useful. But as someone pointed out, security is

so multidisciplinary that we're not always talking about the same thing.

**MALCOLM HARBOUR:**

I just wanted to make a point with regard to the wireless Internet. Here we will see different mechanisms for dealing with spam and unauthorized content. Among the next billion Internet users a much higher proportion will be wireless. And the security and integrity of the wireless networks itself present another challenge, much more than fixed lines.

From online participants:

There are two people who I have comments from. The first is Allison Wheeler, who is the CEO of Wikipedia U.K. Allison said that the bottom-line problem is that the Internet has become a general population toy rather than a capable and trained person tool, and she mentions the fact that computers are now sold alongside televisions and cookers, and that that's the serious problem here. They're not all white boards, but end users think they are. The next point comes from Michael Nelson, Internet Society and based in Arlington, Virginia. He asks how important open standards in development of better Internet security are and how patent fights over new technologies have slowed rollout of better security technologies and techniques? He says, we desperately need better authentication in cyberspace, but most proposed solutions are based upon proprietary solutions.

**RICHARD SIMPSON:**

Michael Nelson's made a very good point in talking about the importance of electronic authentication. This is an issue that is more about an effective means for identity management online. Emerging threats like identity theft have to do with the problems of identity online, identity both of an individual as well as in a corporate sense. There are now many instruments available where we could look at strange electronic authentication, but also identity management online. The banking industry worldwide has a significant interest in how this whole area unfolds. I think often that the private sector responds to -- very much to public demand in the first instance, as it's reflected in their business, but, secondly, also to leadership as it may be reflected by governments in terms of responding to their clients, which is the voter for all of our countries.

**HENRIK KASPERSEN:**

I would say that governments should not interfere in the process of standard-setting. I think that's something that should be left to private industry. They are most capable of doing so. They are dealing with competition. There is no influence needed for governments. The influence, nevertheless, could be some pressure to do it. And if you have conflicts than courts may make parties accountable for not having implemented certain measures.

**ILIAS CHANTZOS:**

We can well argue that governments have already in their tool kit a number of tools which they could be using. However, the fact remains that if we don't want to be carving things in stone, it's very important that we understand and show that the market is there and able to innovate. And to do that, we need a market-driven bottom-up approach. Technology moves too quickly. We cannot afford when we're getting things through the institutional democratic process. Competition in the marketplace, openness, interoperability are key issues for information security. The fact that we're having right now a healthy market is key to ensure that we maintain a high level of information

security. We cannot afford to have a security through obscurity. I think that the current marketplace is such that there are the drivers which would ensure that we see and maintain innovation. The IGF is a good place where we can kick the idea and hear the views of the different stakeholders. We need to make sure that the different bodies continue to work together, push these ideas and see what comes out of the democratic process.

GUS HOSEIN:

I'm half excited and half terrified by this proposal. The part of me that's excited is saying that the current standards-making process, whether it's the de facto standards created by companies or the larger standards created by international institutions, are such a closed process already, it's impenetrable to most, very technical, as you say, but also very economically and it is very expensive to attend these meetings. They're basically dominated by very powerful players. At the same time, authentication and all these security issues are so delicate that I worry that what we'd come up would be unusable or even dangerous. So I'd actually recommend, instead of coming up with standards, why don't we follow the guidance of the Canadians when they created authentication principles that they're now working with the OECD. Why don't we look at what's coming out of the U.S. from companies like Microsoft and Liberty Alliance about principles of authentication, and look at what's going on in Europe and bring these ideas together and coming up with principles, not hard, cold standards, but principles.

RIKKE FRANK JORGENSEN:

Could be anyone on the panel answering, to which extent these rather close processes, these standard committees are in any way open to people from developing countries. They might be in principle. But what is the reality?

ARCADY KREMER:

First of all, standards are a very important and useful means to guarantee interoperability. And standards are also a way to find the best possible solution. But we have thousands of standards. We should find what true standards are. True standards are those which are used. It's very important for the various forums to collaborate and cooperate in order not to exclude anyone. And we also need to work in parallel to find the right standards.

From the floor:

One in every 150 e-mails is a phishing or identity theft attempt. Something like 54% of all filtered e-mails is spam. From a developing country perspective, most of the issues of security are from the end user perspective, just the denial of service, the cost of actually running your own network or having access. And we know that in many developing countries, bandwidth capacity's relatively limited and expensive. We know that most of that Internet traffic is coming from outside of the country. Is there an obligation on the major tier-one peers or other peer agreements on the Internet exchanges or the ISPs in the more developed world and the OECD countries actually to manage the security and quality of the traffic that is being sent across the network, particularly to developing countries? Is there an obligation for some users? And then going through this question on the roles and obligations on sort of intermediaries in the marketplace, are there other obligations that we can place on ISPs? The latest security tools and downloads should be provided as public goods if we're really generally interested in inclusive information society.

ANDREW MAURER:

Yes, it's good if we immunize against small pox or flu. It's not so good if we immunize against Bubonic plague because it's a sexy thing and it involves rats. So there has to be an approach to what security tools are being put in place, what security approaches are being put in place. I am speaking from a government perspective. I think that the role for government is to bring together the right players with the right ideas. And so bringing together civil society to bring forward the ideas about what is important to them, what interactions they particularly want is useful. Bringing together the private sector who can bring together perhaps a bit more detailed information of the economic choices, of the market choices is useful as well.

RICHARD SIMPSON:

Government's first responsibility is set the benchmark, and ask the private sector to respond. The analogy of the Internet as a public good and mutual benefit and mutual self-interest is quite obvious here once people think about it for any period of time. It will be the driving force behind the private sector responding. A good example is the messaging anti-abuse working group (MAAWG) that has been working rapidly adopting many standards practices and policies that are dealing with some of the critical issues. The success of MAAWG shows that the private sector, if it is given a set of expectations based on the mutual benefit they gain from working together, will respond.

MALCOLM HARBOUR:

In European Commission's consultation paper on the current framework legislation in Europe, we put a legal duty of care on network operators to operate a secure network. And they can be held liable for problems that will be caused by that. They have to demonstrate they have done everything possible to protect their network from security breaches. In some countries, Finland is an example, network providers have to provide security tools for all their users. So there are things that could be done. I don't think that there is going to be a single silver bullet or the sword to cut the Gordian knot, because everybody has got their own ideas. I would have thought that we were in a position with the sort of expertise discovered here to put together, if you like, a digest of best practices. Because if we're talking about rolling out new networks, anybody who is in a developing country who is working with people to invest in new networks surely wants access to all the information and then they can decide what they want to put in place, which is best practice to do that.

ILIAS CHANTZOS:

I think that the security marketplace is working and producing very nominative and competitive solutions. I get uncomfortable when I hear statements about public goods. Does this mean we are taking out from the marketplace this dynamism, this innovation? There is a tragedy of the commons. If they are common, everybody has rights in it, nobody has obligations in it. Everybody enjoys it but nobody really cares for it. So to go out and say we're going to turn A or B into a public good, we need to make sure that at the same time we sustain a level of innovation.

KEN CUKIER:

Wikipedia is a great encyclopedia. It's created by users, by the people who actually use the Internet. It's all for free. Open source software. We know that Microsoft offers different products. Some of them are more successful than others, but we also know that in terms of server software, about 60% is from Apache and that is a free, downloadable, open-source product. The Linux kernel is secure. Large companies are using it for the most critical information infrastructure, yet it's done by the open-source

community. Is it time that we have an open source security practice for network security?

ILIAS CHANTZOS:

If we look into the security threat report, we see that on the latest reporting period, 47 new vulnerabilities were discovered affecting open source browsers, up to 17 in comparison to the previous period. 32 were proprietary. But I'm not standing here and I'm saying that the open source is something which is not good. No at all. Every kind of technology has its uses. Every business model has its uses and its values. All I'm saying is that the key issue around what you want chooses when it has to do with information security has to be based not on how a solution is licensed. And also, at what risk environment it's going to be placed.

LAMIA CHAFFAI:

Open source software presents an opportunity for the countries in developing countries, but also the propriety software are complementary in some ways. I want to speak about the role of the government in the development of security. They have an important role as a catalyzer for the private sector. The public/private partnership is very important. For development of the industry to boost the human resource capacity building in terms of security, sensitizing the users is key. And it is important that the government has a whole strategy and be aware of the security issue for all kinds of services.

HENRIK KASPERSEN:

I agree that the government really can play the role of a catalyst. That's not strange when we are talking about security in other areas. When we talk about the real world, we see it's the task of the government to seek that the citizens are secure in certain environments. If you build a house, we have prescriptions. If you do something else, you drive a car, you have prescriptions. It should also be normal that the government looks to Internet security. The only point is it's very difficult. You can check if a house is built that the prescriptions are followed, but it's very difficult to do the same when you build a network or you use a network. The bottom line should be what kind of behaviour should be criminalized, what should not be done. It is extremely important to have a clear idea what should be in criminal law, and also strong pressure on to prosecute and investigate those kind of crimes in order to make it clear what will be accepted and what will not.

TERAYASU MURAKAMI:

Governments have an important function to coordinate the various measures with regard to the security issues. Take mobile phone and spam mails. Since 2003, in Japan we have a very well-coordinated actions occur, where government established the anti-spam law and industry had a coordinated action to share the information on the spammers. Private sector reacted to that movement by changing the address to a very long one. Those coordinated actions occurred simultaneously with the coordination of the government. I'm a believer of broken window theory. Whenever we have an effective action to fight against, for instance, spammers, we ought to have no broken windows at home. If you have a broken window in user side, well, that action would not work. And if you have a broken window in industry side, that action also doesn't work.

From the floor:

Many experts today talk about cooperation and collaboration, and they said that security is a very complex issue, very complicated. We should approach this from different

positions and viewpoints, and we should be more systematic in our approach. Can Internet users be divided into categories: individuals, society, and state? If we are thinking of the individual as an Internet user, then his civil rights have to be protected. If it's society which is the user, then we have to see the commercial and trade aspect, and also the security of the transactions. And when we are talking about the state, then we should see it as a resource to be managed and also as a way to connect to your citizens.

From the floor:

We had the speaker from China tell us some examples of IPs that they blocked. Well, as a network administrator, I could open my mail locks and give him more IPs to block as fast as he could write them down. And the answer to this from some administrators, not many, is to shut down service from all IPs in China or other similar countries. And I think this is a terrible thing because developing countries are right now struggling to get on the net. And because of these security problems, we shut them down again. And, well, I see international law corporation is somehow more interested in shutting down bloggers like now in Greece or sometimes in China we have seen and not so much interested in getting after IPs of spammers or virus IPs because those are in the millions.

From the floor:

I'll answer the question from our experience. We deal with Spam. We have a coordinated working group of the Internet Society China. In November 2002 Spams were a very serious problem in China and affected the economic interests of operators, including taking up their space. And they requested to do something. The first task of the working group was to establish principles of work. For instance, whether in the organization they should share information. If they find IP addresses of Spam, they should discuss this matter and we should assess whether the IP address sent a lot of Spams. And also we have the principle of coordinated action to make joint efforts. So after defining some principles, we received the reporting and denunciation from society and the relevant organs and received some addresses that sent Spam. If we determine that these IP addresses, indeed, sent Spams, we announced the list of such addresses. So such a list, we have WW.NT slash Spam Web site, you can see how many servers of Spam we have announced. If after three months they have not improved their behavior, we will organize resistance to such Spams. After several years of work, we also established a white list, to request self-discipline and build up trust among relevant parties. In this March, we also determined the guidelines for service. Before our spams were increasing from the first quarter of this year, the end of the first quarter and the second quarter, spams decreased by 1.8%. And for the second quarter, a drop of 2%. I think this is quite good. And we, with the Australian authorities and KISA in Korea, we established the administration to combat spams.

RIKKE FRANK JORGENSEN:

Threats come not only from criminals; they come also from the state. We could set a government benchmark for the business to develop the Internet as an open, secure, diverse, accessible space. At the same time, we have the strongest political pressure ever to expand surveillance by governments all over. In Europe we've had the debate over the last year on data retention, the systematic retaining of user data for the purpose of law enforcement, but not based on a concrete suspect. We have also a political dimension of this, where we have these systematic surveillance issues being implemented.

CHRISTIAAN VAN DER VALK:

I wanted to put it in the context specifically of the question on PKI certification authorities, because the issue of identification is very central. How does one identify himself, how can you identify someone else, whether that is a legal person, a natural person, or maybe an application or a machine on the Internet? All of these questions have been debated now in various forums at least the last ten years. Can we leave the identification of these different entities to the private sector? My answer is definitely yes. Even I would go further than that. We have to. And there is a simple reason for that. Sometimes analogies are useful. Public key certificate is like your apartment on the Internet. Or an electronic signature is like the equivalent of a handwritten signature. Interaction on the Internet is multifaceted, incredibly complex, impossible to define, and changing all the time. And all of these interactions are based on security credentials or identity in one form or another. And, yes, we would, of course, all benefit from a more standardized way of creating credentials and identities on the Internet, or validating them, of understanding them, and exchanging them between all of us. But because of all the different levels and because of all the complexity, it is impossible for a public authority to be the identifier of everything that transacts and is communicated over the Internet. This is something that has to be left to the various levels and the various types of entities themselves, and it needs to be worked out by the private sector, obviously, within a regulatory framework. That regulatory framework has been put in place, I think, in various ways, both within the EU, but also within the UN like UNCITRAL. However many of the existing frameworks have to be revisited because its existence is definitely no longer up to the need of today's marketplace.

LAMIA CHAFFAI:

Could we allow one user to have various different means of authentication? Is it practical for them to have to present a different authentication each time? Are you going to have one single identifier? This comes back to the question of privacy as well.

From the floor:

I am from the ITU. The question about overall coordination of the activities and reaching out to the developing world was pretty much settled in the Tunis agreement. The ITU is the overall facilitator for C5, building confidence, which includes security. And we have undertaken a number of actions. Activities going on.

From the floor:

It's Michael Nelson again, who says, what's the nightmare scenario? Do you worry that there could be a catastrophic security problem that would cause most Internet users to stop using the net? And another one comes from Melborn. He asks whether it would make sense that Internet users should eventually be required to take a form of virtual driving test, something that could be a requirement for future generations by the educational system. Since users could be located by their IP address, surely penalties for misuse could be issued in the same manner as they are for motor vehicle drivers. It should of course be some international code of conduct rather than nation-based.

HENRIK KASPERSEN:

My answer to the drivers licence idea is no. The driver's license discussion is a very old one. Actually, why would you like to achieve that? You have to be sure that somebody is, indeed, a user. You would have to take severe measures that we are really endangering the privacy of the persons. That's the same for society. We walk around a lot of the streets. There is no need to put a sign on our hat who we are. We may have

been asked who we are to identify ourself, if necessary in certain situations. There must be a balance between to know at all times who is doing something or only necessary if somebody is doing something wrong.

DAVID BELANGER:

It turns out that most national infrastructures -- water, electricity, nearly everything else - is based on networking. Right now they're probably based on more classical networks, which are far more closed. But since nearly all communications networks are moving to IP over time, I think that we will have to be extraordinarily careful in trying to create nearly bullet-proof networks for the large national infrastructures.

ANDREW MAURER:

I think the more practical thing is that transactions won't be trusted across the Net, so that the Net would actually fragment, so that people could create their own small network of trusted users and trusted providers. And I think that's probably in some ways a more near-term or more realistic threat to the Net.

GUS HOSEIN:

When we talk about users, we automatically assume that they're absolute idiots. Isn't that odd, that all these years later, despite all that talk about empowerment, we still presume that users are idiots? I think that, honestly, if we left it in the hands of the users, if you gave them the ability to decide over what transactions are permitted within their computer and what goes out and so on and so forth, they might very well make the right decisions. But we have always treated them like idiots. And we have given them stupid things to do, like, for example, one of the possible reasons why we have phishing is that at some point in time, somebody made the dumb idea that HTML messages was a good idea. And that's why we have users making mistakes, because they're being sent HTML messages saying, click here, log into your bank, so on and so forth. Honestly, if we let consumers be smart and not want flashing e-mails and all of that, they might actually make the right decisions for themselves.

KEN CUKIER:

Gus, what about in a world in which we don't have one person with one Internet connection, but that we have Internet connections in about 50 to 150 different devices that we carry with us that are in our car, that are in our home, where people who are using the Internet without even realizing that it's connecting over the Internet, how do we accommodate a world like that? How do we accommodate a world in which the people who might be using it actually do have really low skill sets like my grandmother?

GUS HOSEIN:

I think there are a lot of grandmothers out there that we keep on using in our stories. I feel really bad for any grandmother out there who knows how to use the Internet. I think we're discriminating unfairly against grandmothers. I think there's a lot of practical solutions that can be offered. But I want to take the high-level approach for a change, for me, which is, users should be at the center. They should be in control. They shouldn't be using a device and not realizing it's not connected to the Internet.

KEN CUKIER:

That's just not realistic anymore. If the Internet is going to grow to accommodate not just one billion, but six billion people, you can't just say users have to decide. You just have to be in control.

GUS HOSEIN:

They should be let known. I don't want my mobile phone to be on the Internet unless I tell it to go on the Internet. Otherwise, I'm paying for it unnecessarily, so on and so forth.

KEN CUKIER:

In 15 years, that's like saying I don't want my camera to have a microchip on it.

GUS HOSEIN:

I want to know when it is. I want my camera to be linked to the Internet when I want to put up photos, when I want to do it. I don't want it to be ubiquitous and constant. I want to flip the switch on and off. Most people, if given the choice, I think want to be empowered. They don't want to have it always on. That's just a guess, but I'm an idiot who presumes that people aren't idiots.

CHENGQING HUANG:

In my opinion, the nightmare of Net security will be in two forms: Firstly, the lax infrastructure for Internet security, when online, the user's information might be stolen or falsified. As a result, net users will be afraid of going online.. Another nightmare is the excessive popularization. It's like an idea of house which has been locked with many padlocks. As a result, nobody can enter. So we have to find a balance between security and convenience. We should make it easier for users to go online and to ensure their security. Such a balance should be achieved through technical means on the one hand. This is a necessary condition we need to provide antivirus software, firewall, et cetera. On the other hand, Internet is a global network. Once attacked by virus, it will affect not only an individual machine, but the entire network. So we have to have a kind of a mechanism for coordinating emergency response. Without such a mechanism, such a problem, it will be difficult to handle.

ARCADY KREMER:

The ITU has been asked to coordinate this work, and we are following three directions. First, finding the methodology which would help us at the regional level to give a national solution in order to guarantee security, which means to have a basic principle which will be adapted to the concrete conditions in each country. Second is how to harmonize the work undertaken to guarantee that the legislation prepared will be coherent. Because there is no one institution which could offer a solution to all aspects. And third is to find a way to exchange best practices, comments, and find the equipment which will allow for rapid reaction and an adequate reaction to all kinds of threats. I think here, we should create an inventory where we will be offering solutions.

From the floor:

We haven't to be as innovative as those who invented the Net. The TCP/IP has no national border, unlike the telephone numbers? That's the difference. Don't you think that we need to think more creatively, that some parts of national sovereignty be given more limitation or some less boundaries? In the age of globalization, how many people have the opportunity to talk to the other nationals for their lifetime, and you compare that with 100 years ago, where the sovereignties concept was established. So 50 years from now I think we need to really redefine the national sovereignties, especially in the law enforcement, where we're talking about security and the privacy or human rights.

KEN CUKIER:

Let me take up what Izumi has said, his challenge to us to understand a vision of the sort of society we want to create and how the Internet plays a role in terms of its security in 20 to 50 years. The idea of national sovereignty is one issue. The IGF, obviously, is the beginning of something. We are in mid process. But lets start here and today.

DAVID BELANGER:

Information has actually become the good which we share in an economic sense as well as a social sense around the world. And actually, a little bit to my surprise, there was a discussion of regionalizing the net.

LAMIA CHAFFAI:

Security, and elaborating a strategy at the national level. And I'm thinking particularly of developing countries. They have to take into account the security issue whilst preparing their strategies. There are various pillars which we have taken into account in Tunisia like awareness, partnership with the private sector, the citizens, international cooperation, harmonization of the legal framework.

ILIAS CHANTZOS:

We come to the point where we all agree that security is important, information and identity, privacy of individuals or, if you like, parts of the currency of the modern digital lifestyle which we are living in and in that respect need to be protected. So I guess what I am taking from this event is the need, the importance for the private sector to be engaged.

CHENGQING HUANG:

Through our discussion, we can inspire more ideas. Maybe we do not have a lot of conclusions in the short run, but we have brainstorming. And it will be conducive for further development of Internet in the future. We discussed the issue of security. That is, security, whether it's an issue of public service for the government. I think this is an issue that merits serious consideration. Through our discussion and exchange of views, we can form good ideas and, in the future, we can further promote security for a global network.

GUS HOSEIN:

I'm excited by all the confusion. That's what I'm taking away from this. I am excited by the fact that we still don't know the role of government. We still don't know the role of industry. We still don't quite know what international cooperation should be like. And we still have a very limited idea of what users are. I think that's exciting to be in a field where after all these years we're still so confused.

RIKKE FRANK JORGENSEN:

The first is the link between security and development. As much as we wanted to address it today, I take away that we are still rather weak when we talk about this link and what it actually means and how security play into the development agenda. The second point is the multistakeholder approach. I would like to see a multistakeholder task force on security and privacy. The added value of the IGF is that it actually brings together different parties that are not brought together in other fora.

HENRIK KASPERSEN:

When developing security measures you have take into account what impact those measures have or may have on other interests, like the privacy interests. As to the form, I made the distinction between network security and user security. Further I call to all state representatives present in the room to consider accession to the Council of Europe cyber crime convention, or at least use the convention as a model for their own domestic purposes, to copy things that have been invented by all of us, can be easily applied by themselves in their domestic legislation.

ARKADY KREMER:

Full governance security is vital. I think that we can't guarantee security on a voluntary base, especially when we are talking about a network as big as the Internet. I think we should make efforts, because there will be many attacks. So I believe that the state's role will increase in the future, especially when attempting to guarantee security on the net. It's very difficult to regulate technology. It's very difficult to regulate the relations between users and the links. Today's discussion gave us food for thought to those who are experts in this field and whose job it is to regulate.

ANDREW MAURER:

You can educate the people within your constituency about the threats that are out there and the tools that can be used to protect themselves. Private sector or the technical providers can perhaps develop tools that are a bit easier and simpler to use. And all of this can operate across the various borders of countries to share information, to target those threats, and perhaps to enforce laws against the bad actors.

MALCOLM HARBOUR:

This is a shared responsibility that goes right to the heart of the whole of what we are talking about. I was interested in the point that Gus was making about confusion. All I can say is if we're confused, then hopefully criminals are as well. But that's perhaps a slight trivial point. But in terms of practical ways forward, it seems to me that there have been so many examples of best practice in other areas that that's something I think this forum perhaps need to try and pull together in some sort of source book.

TERAYASU MURAKAMI:

At the beginning of the session, I mentioned the importance of the more attention to the victimizers than the victims. Well, I think IGF also should have that position. And, for instance, with the international cooperation, whether we can enhance the sort of traceability of the victimizers within the unanimous Internet communities. In this respect, for instance, we'll enhance the power of WHOIS system by proper restoration of the contact information, as one idea to do that.

FREDERICO NEVES:

I will stick to my point that I think the role that governments could play because of the IGF is on education. And so in this sense, they could collaborate between -- among governments and to get best practices or the best material to basic users. Because of the simple fact that independent of the way the threats spread to users, in the end, most of the problems that face end users are based on socio-engineering. So this is something that basic training could resolve. So we stick with education of end users.

RICHARD SIMPSON:

I notice that our concern with authentication and identity management is shared with others in the room and it's very encouraging. But it's also part of what I would propose

the ongoing role of the IGF might be. I mentioned earlier the idea of and the need for setting benchmarks, goals, targets, whatever you call them, which the international community can work toward, including the private sector as well as governments. Well, the flip side of benchmarks is also reporting on progress. And because the IGF is set up as, for the moment, at least, as a regular opportunity to meet and discuss these issues, it' could be a very important vehicle for not only setting those goals but also reporting on a regular basis on how well we are achieving them.

**CHRISTIAAN VAN DER VALK:**

There might be slight differences of opinion but we certainly have a common ground in terms of how we refer to the topics. This is definitely a very important piece of progress because it lays a foundation for addressing the issues.

**CHAIRMAN TSOUKALAS:**

We talked about a wide range of subjects. It was cost, availability, security, confidentiality, privacy, legal protection, cybercrime, cooperation, victims and abusers, economic issues, contradictory legal frameworks, and such. All these confirm that if a classical scientist was examining the Internet, he would have called it a cosmological, primordial soup. So I think that we should be very careful when creating the founding principles. So I would like to, in turn, praise the WSIS and its key address and also this forum, because I've been an academic for most of my life. And many times, I've had to do battle with the vacuity of terminology when we're teaching. And I think the time has come to give true meaning to these words. This is offered both by the Tunis Agenda and by this forum. And I think both have been extremely useful. I'm a lot more optimistic. I'm more of an optimist than you experts, because I think that adaptable systems can find adequate solutions, and man is an adaptable system. And I also am a firm believer in Greek mythology. The God of necessity rules the world. The Internet is here to stay. So I am convinced that we will find the right solutions which will allow humanity to use everything it has acquired.

## 5. Diversity

**Chairman:**

- **Nikolay Vassilev**, Bulgarian Minister of State Administration & Administrative Reform

**Moderator:**

- **Yoshinori Imai**, The Japan Broadcasting Corporation (NHK)

**Speakers:**

- **Julian Casasbuenas**, Director, Colnodo
- **Alex Corenthin**, Manager of NIC Senegal and President of ISOC Senegal
- **Patrik Fältström**, Stockholm, Cisco Systems; Internet Engineering Task Force (IETF); Member of Swedish Government IT Policy and Strategy Group
- **Divina Frau-Meigs**, Professor of Media Sociology at the Université Paris 3-

Sorbonne, France, Vice President IAMCR

- **Prof. Qiheng Hu**, Chairperson, Internet Society of China
- **T.I.M. Nurul Kabir** CEO & Founder, Spinnovation Ltd.
- **Keisuke Kamimura**, GLOCOM, Tokyo
- **Elizabeth Longworth**, Executive Director, Office of the Director-General, UNESCO
- **Riyadh Najm**, Assistant Deputy Minister of Culture and Information, Saudi Arabia, President of the Technical Committee of World Broadcasting Union
- **Adama Samassékou**, President, African Academy of Languages, Bamako, Mali

NIKOLAY VASSILEV:

This panel is called "Diversity". And the subtheme is promoting multilingualism in local content. In this session, we will focus on some of the key principles for building an open information society: The ability of users to use the Internet in their own language and with their native alphabet. Let me quote something that all participants agreed in Tunisia last year. We agreed to work earnestly towards multilingualization of the Internet, and also to support local content development, translation and adaptation, digital archives, and diverse forms of digital and traditional media.

YOSHINORI IMAI:

More than one billion people use the Internet. Many of these people cannot read or write in English. They use languages which do not come from Latin alphabet. Some 90% of 6,000 languages used in the world today are not represented on the Internet. People in those countries could be left out in the desert of no information and no knowledge, without any means to acquire them. Knowledge and information are basic elements of well-being, social transformation, human development, and democracy. Building the capacity of both individuals and institutions in creating local content in local languages is the must. The domain names today cannot display characters not contained in ASCII. To develop Internationalized Domain Names (IDNs), while preserve the security and stability of the domain name system, is today's challenge.

From the floor:

I'm fro the.PL registry from Poland. My focus is the DNS. If we are talking about diversity iDNs are the key issue allowing non-English-speaking people to create their e-mail addresses and domain names in their languages. I'm acting as rapporteur for IDN issues in ITU. Our activity within ITU is to facilitate the process. ICANN is playing the key role in the standardization and facilitation. Of course, IETF and other groups are active in standardization. What we need also more awareness about the security risk.

JULIAN CASASBUENAS:

As far as culture diversity and inclusion is concerned, in countries like mine, Colombia, there's a fear about loosing the cultural heritage and traditional knowledge of our indigenous groups. Fortunately, we do see that some progress has been made, and the flow of information is moving more freely. This allows local groups to feel able to

exchange knowledge and views and also reap the benefits of new technology, which means including with free software new content online, and also to facilitate the production and dissemination of this information.

ALEX CORENTIN:

I am the president of ISOC Senegal. We have lots of oral languages that don't have an alphabet and use the Roman alphabet or the Arabic alphabet. And it's very difficult for them to get their content on the Internet. We have to find a way for all these communities, which have been isolated in the past, to have their own voice on the Net. We have to find tools which will take into account the linguistic and cultural diversity of these people to codify their languages in whichever way possible in order for their content to also be present. The other difficulty is that we have a great number of languages within the one nation. In Senegal, we have 13 codified languages. It is obvious that it's very hard to give equal value to all of these languages. And access is made more difficult by the fact that we don't have a common language which can be used. Next point is illiteracy. Often, in developing countries, we have people who are cannot use French which is an international language. They might be illiterate in French, but they know how to write their own language. They can communicate in their language, but not in a foreign tongue, although it's used by us. It's quite difficult for them to transcribe their languages in the Roman alphabet. We shouldn't think of these people as truly illiterate. We should say that they also have to be given an opportunity to access and use the Web. They have to be able to find a way of expressing their identity on the Internet. If we give them access to the Internet, we also have to give them access in a language they can use.

PATRIK FALTSTROM:

I am one of the authors of the IDN standard. First of all, I would like to emphasize what Vint Cerf said yesterday, and that is that we have to remember that IDNs are identifiers. It is not content as such. We just have to find a standard that makes people as little unhappy as possible using their script as an identifier. Another issue is the ability to create content. And that has to do with the third important point, the ability to be able to get operating systems, tools and software, translated into the local language and expressed in a script which people then can read. The overall problem is to enable people to express themselves in multiple languages on the Internet. In Sweden we have seven official languages. And out of seven six of them are protected by law. Can you guess which one is not protected? That is Swedish. BTW, the only country where Swedish is protected as language is Finland. More interesting is that one of the protected languages in Sweden is the sign language that blind people use. There is a script for that. But it's extremely complicated and not really what people want to use. And that leads me to some very interesting applications that we have seen in the recent past like Wikipedia that exists now in 150 languages. Do we have to write the same article multiple times? We need automatic translation tools. Second very important application is YouTube. YouTube is a very good example where people, just by clicking, can upload a video and also watch videos. You don't have to read and write to use it. With the correct tools and with the ability to have some kind of automatic translation we will see local content being created. And with that, we get more information, and information will be exchanged by the people that understand whatever language is in use.

DIVINA FRAU-MEIGS:

We have three basic pillars. 1. democracy: using your own language is part of your human rights. 2. sustainable development:: Language has to do with delocalization. 3.

Equality: We need equitable relations between all partners, and especially the minority ones. There is a need to promote educational access, to make it open and free. There are a lot of technical and linguistic problems to achieve this, because it's quite hard to guarantee to transfer it into all languages. But we do need this if we want to achieve full content creation and the ability and the capacity for all to participate. We want the reality of natural languages to be taken into account and to use tools which have been very useful for oral cultures. We should explore more what goes on with these new tools which allow people to use free and natural speech.

QIHENG HU:

I'm not an expert on the use of IDNs just because I'm the chairman of CNNIC Steering Committee. I understand something of Chinese domain names as IDNs. And it is right that diversity of cultures and languages on the Internet is an issue of vital importance. In my country, there are dozens of ethnic groups. How to maintain their cultural traditions, their languages, their customs and practices? This issue has been the agenda of the country all along. Of course, the world of Internet way should also try to preserve diversity of cultures and languages. IDNs cannot resolve the issue of diversity entirely. However, it's an important part of the efforts. However, concerning IDNs there should be some limits. In China there are dozens of ethnic groups. It's not possible to establish domain names in dozens of ethnic languages so that every ethnic group can use their own language to access the net. Ethnic groups can use Chinese as their language. If there are too many languages, the domain names in many languages can threaten the stability and security of the current DNS. We have to find a balance between IDNs and the security and stability of the DNS. We must formulate a good policy which is based on common efforts between different countries, nationalities, and Internet circles.

NURUL KABIR:

In 1952 in Bangladesh there was a movement to fight for the language. It was during the period when Bangladesh was part of Pakistan. People did fight for language and many died in a battle on 21st February 1952. Eventually, UNESCO declared 21st February the "World Language Day". In today's technological development and in the Internet we have a divide with regard to local languages. How we create opportunities to use local language in the Web for those who are not privileged to use Internet.

KEISUKE KAMIMURA:

I am on this panel for two reasons. For one thing, I am here for the sake of ethnic and geographic diversity, per se. And I am here to bring a little bit of linguistics perspective to this discussion. There are lots of other issues on top of IDN in ensuring multilingualism on cyberspace. To me, in discussing diversity, language is the most important element, and this is because it is through language we participate in any social, economic, and cultural activity, whether off-line or online. If we are not comfortable with the tools we are using, we would be practically excluded from participating in Information Society at all. We want to express ourselves in our own language. It's not about content alone, it is about production and generation of content.

ELIZABETH LONGWORTH:

From a UNESCO perspective I would like to remind everybody that we have international framework here. There is the Universal Declaration on Cultural Diversity, and the Recommendation on Multilingualism and Universal Access. Diversity means for us, sharing of knowledge. This goes to the heart of the UNESCO's mandate. When we talk about diversity, we're talking about the ability of users to express their culture and

reflect their identity. Diversity has notions of being representative. It's about who we are: Women, youth, people with disabilities, indigenous. It's about being plural, it's about richness, it's about being local. Like biodiversity is to nature, diversity on the Internet must reflect the whole spectrum of human endeavor, both past and future. And finally it reflects our cultures, our experiences, our perspectives, our religions, our values. Without diversity on the Internet, you cannot have access and participation. It's one of the major tools we have to fight intolerance and to overcome negative stereotypes.

RIYADH NAJM:

I am Assistant Deputy Minister for the Ministry of Culture and Information in Saudi Arabia. I am also the chairman of the Technical Committee for the World Broadcasting Union (WBU). The Arabic language is a language that does not have an alphabet with characters that are Latin. Arabic is an issue in the IDNs and the ability to access the Internet. But this is true also for broadcasting. Among the broadcast unions we have all the main languages of the world. And so we have also the cultural and moral values as an issue. But we should not limit ourselves to the language barrier if we talk about diversity.

ADAMA SAMASSEKOU:

Our main objective today is to promote linguistic diversity, not diversity of human communication. Linguistic diversity is the mother of cultural diversity. And linguistic diversity is to human society what biodiversity is to nature. Biodiversity is a way of species to survive in nature. This is what linguistic diversity does to us. The most diverse species are the ones which survive best. And there are thousands of languages. In every African country there are at least two official languages. Most times, there are three languages and more. Part of the work of the African Academy of Languages is to showcase this linguistic diversity. For us the destiny of humankind depends on our languages to a certain degree. Language is the linchpin of our collective identity. It's a privileged instrument to know, acknowledge, and recognize, to enhance and strengthen relations, to construct and build peace and stability. We have to know each other in order to be able to recognize each other. We are in Greece, and from the times of Delphi and from Socrates, we have knowledge as importance. Because in my country we say it's good to be able to tell what a flower is, to be able to ride a horse, but it's even better to know yourself. So what does diversity mean to us Africans? We need to be able to share knowledge, because this new society leaves people isolated, marginalized. There is a huge part of the world population which are voiceless. I call them voiceless because they are not able to share the knowledge which is available. The Internet is opening up the world to people so that they can create knowledge and sharing it.

From the floor:

Talking about English, some of us are native speakers, and some, like me, are not. What do we do? There are two opposite approaches. Some technicians would take the simplistic approach and say: "Well, look, whether we like it or not, English is becoming the most important language in the world. So it's easier for most people to study English and then it will be the easiest solution to the problem." Local politicians would say that we would like to emphasize our own language to defend our diversity, so we would like to use our own language local domain names, local content etc. Bulgaria, situated right to the north of Greece is a Slavic country. Our language belongs to the same language group with the Russian language. We are also a member of the francophonie, but while English is now becoming the second most important language in the country. As a policymaker, I would say that we are very proud of our own alphabet, which is Cyrillic

and used by over 200 million people in the world. But it's also okay for us to study English. As a ministry, we made the decision this year to train 12,000 civil servants from a total number of about 90,000, in English and 21,000 people in IT this year. Maybe the solution for small countries like us is to be proud of our own languages, but also to study English and many other languages. A second problem is local content. There are some economies of scale in terms of the size of the market. Local content for the UK schools can be used everywhere, in the UK, in the US and in many other countries. Local content Mandarin Chinese has the enormous Chinese market. But what about Latvia? Their market is about 2 million people, smaller than the Bulgarian market, so obviously for them it's more expensive on a per-capita basis to develop all the content. A third issue is transliteration, spelling names in other languages. Now, we might all think this is a very easy issue to solve using the 26 Latin characters. The general rule is, when spelling proper names of geographical locations, cities, rivers and so on you spell the name as it is written in the original language. But if the whole alphabet is different you have a problem. The Greeks have a very good system of transliteration. If you take the name of a Greek person or a city, there is almost 100 percent rule how to write it with the 26 Latin letters. What about Japanese and Chinese names? To people like us, Japanese sounds quite phonetic. So if you hear a name, even without speaking Japanese, you will more or less be able to write it down with English letters. The Japanese people have no problem writing their name in one unique way, using the English alphabet like the Chinese. I've never seen the name of the city Shanghai spelled wrongly. It's difficult to spell it, but it's always spelled in the same way, because the Chinese decided the way to transliterate it into the English alphabet. But what about Cyrillic? Here you can find all kinds of paradoxes. For example, starting with my own name Nikolay. You would expect this to be very easy to spell it with the Latin alphabet. But it turns out not to be so easy, because we've never had universal rules for that. And in the first 30 years of my life, I used to spell my first name in four different ways, living in different countries. This is not normal. If you take my wife, Sylvia, she has a relatively easy, internationally recognized name. But she can show you three consecutive international passports, and her first name, Sylvia, is spelled in three different ways. Our government this year decided to put an end to this problem and to create a set of rules. We created a language table and certain rules that will tell you how to write names of cities and people. This issue should not be forgotten when discussing multilingualism on the Internet.

From the floor:

My language is Spanish. Spanish is the second most widely spoken language around the world, following Chinese. And there are a lot of Spanish-speakers in the US. But Spanish on the Internet is very poorly represented. This has certainly an economic impact. I don't know how we can solve this. There's an interesting example from France. French has become the second language in terms of content on the Internet. And that is due to the public policies introduced by the French government. What sort of public policies can we implement to promote the use of different languages in the Internet.

From the floor:

I am from Indonesia, from Aceh, which is the tsunami-affected region in Indonesia, where hundreds of my family disappeared during the tsunami. There is only one protected language in Indonesia, which is the official language, out of 742 native languages. What should the government do to preserve all these languages?

From the floor:

There are people in the world who do not have written languages or who are not able to

read and write, and yet they have equal need for access to information. We also would like to preserve on the network their knowledge. I wonder if we could work harder to capture oral content on the network and find ways to index it so it could be discovered by others who are interested in it. It's a medium which hasn't been as fully explored as it could be. If we learn how to do good oral interaction on the network this would be a great help also for people who are blind.

From the floor:

We have 11 million users Internet in Iran now. If we want to know each other, there should be some people in each culture to know the language of the other culture. It's very important for us to have the facilities of multilingual culturalism. If we want to reach that aim we need better software that support all the languages.

YOSHINORI IMAI:

We have to do two things: Local content with multilingualism and IDNs. Lets start with IDNs

PATRIK FALTSTROM:

For the IDN standard we have made a decision to use the Unicode code set. This implies that translations from the local character set and script that might be used to Unicode create some problems. But to be able to use the technical standard, we have to use the Unicode code set. We do have an encoding of Unicode code set in the DNS that works. It is deployed in many countries. But we still do have some scripts and some languages or combination of language and scripts where the current standard of IDN is not 100% perfect. And we have some issues with the right-to-left scripts or with the Hebrew script. At the moment, we are doing a revised version of the IDN version where we do more careful selection of the code points, what characters you can use. ICANN is working very hard. They have a test on how IDN will work in the root zone file so we can get top-level domains that are internationalized. We are very close to have a result of that technical discussion. There are still many policy decisions that have to be made. But I claim that regarding the technical implementation for the WWW, we are done except for maybe some corner cases.

ALEX CORENTHIN:

We are trying in Africa to contribute to launching an initiative called the Africa Ideal. And that will allow us, with the African Academy for Languages with linguists to see what is linked to transcription of our various different languages and those which have already been taken care of in Unicode. In the major discussion groups, this is becoming an important issue now. But we don't have a critical mass of competence as yet. There is a need to develop competence and ability in these countries, which will allow us then to move faster ahead in deployment of this technology and boost the languages. This could be a way of increasing local content..

DIVINA FRAU-MEIGS:

From the point of view of the researchers, we realize that there's a kind of linguistic bias in certain areas. It is a fact that the Internet was developed by millions of English-speaking researchers and that English is far and away the dominant language. And there is a technical bias with the ASCII and the Punycode being selected to try to solve these international problems. But that gives problems for languages with very long nouns which are amputated. The problem goes beyond technology. In Africa where we have oral languages and cultures, it would take a long time to transliterate those in

writing. But we could translate the key words. We wouldn't need a full translation, just vocal recognition of words. It would open up the possibility of expanding language semantics and interpretation and would allow research through the semantic Web. Obviously, there's the local economic question as well for non-majority languages. To achieve progress we need a multiplayer working group under the aegis of a nongovernmental organization which would include civil society, governments, private sector, UNESCO, ITU and ICANN.

From the floor:

I am President of cyber law Asia. We have been working a lot on the legal issues concerning IDNs. Yesterday we discussed the risk of a fragmented Internet. While we are working towards a globalized multilingual Internet, how do we tackle with the issue of national sovereignty? There is an argument that nations themselves are the legitimate heirs and have legitimate claims to linguistic distinctiveness as also linguistic heritage. Does technology allow us to bypass the sovereignty argument?

QIHENG HU:

We need the exchange of different cultures and to keep cultural heritage. 300 million Chinese are learning English. That is for the purpose of facilitating communicating with the rest of the world. And my government has been working hard on this. I have tried to use Latin phonetic system to spell Chinese. This has brought us a lot of advantages. For instance, the word Shanghai is a name which is easy to write and no one can make mistake. But our past experience has shown that Chinese still are not very comfortable with using Latin letters to spell Chinese. They still prefer what is not easy to understand for most of you here, the idiograms. Because of that, I think IDN is something we need very much. It is especially helpful for those people who are not very well educated because they prefer to use the language they are familiar with to express themselves, and find this way of doing things most convenient. It was pointed out that there should be automatic translation. IDN is just one step in the process. With regard to national sovereignty in WSIS, we have come to a very good consensus that a ccTLD should be part of the national sovereignty.

From Online participants

Michael Nelson says a lot of this discussion is ignoring VOIP like Skype or Vonage, which is where Internet users have been communicating a lot more in developing countries recently. Ram Mohan says IDNs themselves are only a small aspect of achieving diversity. .

From the floor:

Do we really need to rely on domain name to retrieve information? I use Google and it works quite well. Using current technology, like voice recognition, automatic translation, and powerful search engine, I can retrieve information such as find me a fine Greek restaurant. In this way, people can retrieve information with their own language without even typing. Is that worth for effort to create a multilingual domain name?

PATRIK FALTSTROM:

The Punycode encoding of Unicode character sets in IDN is not favorizing any language whatsoever. We came up with a brand-new encoding just because any label that is written in one and only one script will be equally compressed compared to, for

example, UTF8. IDN compared to other versions are handle Unicode. No language is favoured. We do have a problem in DNS on long words, though, which is a different problem that was pointed out, but that is not something we can do. That's a technical limitation in the DNS system. Regarding key word systems we have tried to deploy them since 1995. There have so far not been any interest in that, but I hope that will happen. We have several RFCs in the IETF that point out the importance of key word systems, because IDNs are still identifiers. Key word systems are especially for illiterate people and for language regions where you don't have a written language. The biggest users of cell phones in Sweden are people who are deaf. They use sign language on cell phones. The timetable for completion of IDNs is pretty short. We have the first draft of the new version of the IDN standard. We have to make a decision whether the classification of code points in the Unicode character set is good enough when we are selecting what code points to use or not. If it is the case that the classification is not good enough, then we have to go back to the Unicode consortium. What can governments and public and private sector can do. Be a good procurer. Make sure that the content management system that you buy and use can use multiple languages. If you use open source, make sure that the system is possible to handle multiple languages. That is not yet the case.

KEISUKE KAMIMURA:

Until a couple of years ago, you heard URLs read out in television on radio programs in Japan. But now that's different. You will hear search strings instead of URLs. So the program will not say go to this URL. Instead, they will say search this search string with Google or Yahoo! or whatever search engine you like. So we are gradually doing away with URLs or domain names altogether, whether internationalized or un-internationalized. But this will raise another concern, which is the governance of search engines. If we begin to rely more on search engines, search engines are expected to be more open and transparent.

From the floor:

When you are talking about IDNs, I think that it's not enough to have the standards, because we had most of the standards already done three years ago. It's important to have all the stakeholders to be involved including ITU and UNESCO. It's not enough to let to some countries, which have IDNs implemented. It's important that local Internet communities are implementing and deploying the policies. It's important for IETF and ICANN to create technical background, and it's up to the nations, up to the people to implement the IDNs in the way they think it's important. Most of the technical standardization has been already done, but we still do not have IDN.IDN solutions. For those who are using the Arabic, Cyrillic, Chinese, Japanese it's time for them to type WWW in their local characters.

ELIZABETH LONGWORTH:

Before IDN there's a step in terms of negotiating within a language community and agreeing on the way in which your script or language will be represented digitally. Negotiating the character sets is critically important. We need to think in terms of language communities because language transcends national boundaries. My second point concerns sovereignty. I am a lawyer by training and I believe law is just a construct. And if we are going to talk about the Internet as a global public good, then it becomes counterproductive to focus purely on sovereignty issues. Instead, I would suggest that if we are going to stay with the analogy of global public goods, then perhaps we should think about identifiers as a tool, as a technique in which we all have an international public interest. There's a transliteration process that has to happen from

the language into the digital form. And we need tools and techniques to do that. And if we focus only on the sovereignty, we get very distracted. I'd suggest it's more important to talk about the skills and the capacities that are needed for ordinary people to engage in developing agreed language sets and then to actually participate so they become content creators. When you get to the questions on policy we must be careful not to reinvent what's already been done. A lot have been done already in the WSIS context. I would urge that we build off this work that's been done.

From the floor:

I'm the ICT link for the International Disability Alliance, which has eight global organizations. 17% of people have a disability, and I've only seen here one man with a wheelchair and one woman with a cane. The deaf have a culture. Signing is a language. Most Web sites are inaccessible to text readers used by those with reading-related disabilities, people with learning disabilities, cognitive disabilities, people who are blind. Disability cross-cuts the themes of this forum, but many people with disabilities are not part of the information society. How can people with disabilities become included stakeholders in this development process?

From the floor:

We have to eradicate illiteracy and see if we can also do it digitally. Everybody agrees that linguistic diversity is very important. We need a dictionary for technical and international terms which are translated from English into other languages.

JULIAN CASASBUENAS:

Our first request should go towards governments so that they do dedicate more technical and financial resources to these groups to inform marginal groups and make the online content available to them. Technical problems are not so tough. But what we see at the local level is that we need resources which will guarantee and facilitate local content generation. Free software in local languages will help us as well.

NURUL KABIR:

On the national level we have to create policies that support and respect the prevention, promotion, and enhancement of cultural and linguistic diversity and cultural heritage within the information society. Another aspect is market access using local language. There are huge opportunities in the market. In India there are 68,000 villages. There is a plan to develop a telecenter in each village. There are a number of pilot projects going there. It is not enough to put some computer over there. We have to provide content in a useful manner. Access to information will create market opportunities. And here public-private partnership plays a very important role.

ELIZABETH LONGWORTH:

What governments can do? On local content, you're working at the policy level, but you're also working at the local level in terms of skills capacities. There's a huge incentive to encourage people to become content creators in their own right, because it's a real sense of self-respect and the expression of who you are. It's how you foster sort of a democratic and a more participatory environment in your local community. One is the policy on mother tongue in schools and the incentive this can get for economic and social improvements. Second is making official information available in the local language. This is absolutely crucial for viable participatory democracy. Next point is community media. Governments can help with their licensing policies not being threatened by the idea of community media. We have at UNESCO a program on

community multimedia centers that put together radio and oral traditions and Internet. Important is to find local facilitators who can work with the community using conventional outlets like radio, to build glossaries and dictionaries. Another point is on oral traditions. We at UNESCO worked on a project with other collaborators on the N'Ko project in Africa to help that language become capable of having a digital representation. We have another project with the library of Alexandria and the software that they used to facilitate the visually impaired and those working with oral information to access it. On content creation is the huge emphasis on skills development. It's a big incentive to become up-skilled if you know that you're able to not only access the information you need, but you can produce information about your own community that's relevant and you can share information about your own needs. And, finally, we have alternative communication channels, including the blogosphere.

QIHENG HU:

Regarding content in local language, China has many projects, like the library for cultural resources and heritages for minorities including the singing and dancing heritage. This is now represented in digital forms. We have increase awareness and capability on our part for exchanges with other countries and other cultures. However in the course of exchange of online resources, there is problem of fee payment or royalties. This has become a major issue in our process of sharing with the developed countries. The payment is usually a one-way affair. To enrich the cultural sources online, to promote the diversity and sharing, the payment for royalties should be solved in a fair manner. We need to have good laws and international understanding to protect the rights of intellectual properties and cultural resources.

ADAMA SAMASSEKOU:

The main issue is and remains local content. We are creating a new society, and the ICT world should give opportunities to those involved in their own language. The question is not if we're able to use a different to make my local content known. That is already dealt with. We have to understand what local and international content means. In certain countries, they have translated international content into their local language. But is that local content? If we're not careful, we will base ICT on the inequalities we have in the third world. I will give you an example. We were all colonized, and for black Africa, it's still an aberration to find that in most of our states the languages people are familiar with are not the languages used by the administration. What would happen in Greece if you sent Greek kids to school and they started their training in Japanese? The African Academy of Languages is trying to emancipate African languages. Digital technology should be an opportunity for us to hasten our development process for African languages. What we need is for Africans to be able to conceive and produce content in their languages, but also through interpreting and translation view content produced elsewhere. That would mean really a participatory society.

RIYADH NAJM:

As far as Arabic content is concerned there are numerous initiatives among most broadcasters in the Arab world to increase or enhance the local content creation. The general issue here is the local content for the Internet. This is where we should concentrate about. Actually, for developing countries, the Internet is actually sometimes a blessing, whereby you can produce and have your content available to the rest of the world with a relatively cheap way of doing that. If you were to go on other different media, you would need to invest a lot more financial and personal resources. Broadcasters need to encourage to put the audiovisual content on the Internet for that simple reason that it is relatively easy to do that. And it is not language specific or

sensitive. Audiovisual can be put on the same form that it was created, and it does not need to be translated for that particular language. And then it can be accessed to, whether it being from the local community or from the international community that can speak that language.

From the floor:

The basis of the software for the languages and the Unicode standardization is rather difficult. A typical case is Cambodia. It is very difficult to get any recognition from the donors, development community, not to list the commercial vendors. The open source environment is perhaps a good solution. But again, the resources are very limited. Even you have the operating standard, you need operating system, you need the word processing software or the other content creations in their local languages. For a Cambodian going to the IETF, W3C or Unicode consortium meeting is very expensive and often you don't find the people who are equipped with the skills being necessary for understanding the local or native people.

From the floor:

In the Internet environment there are new languages of expression like C++, Java, and python. There are two aspects that I could suggest. First is education for children in multiple programming languages. And second interpreters are required. That translation among the languages is possible, but it becomes very difficult if you don't have adequate interpreters.

From the floor:

I am from the University of Quebec in Montreal. UNESCO has adopted a convention on the protection of cultural diversity. Various countries haven't signed this convention. At the same time the US is currently signing bilateral agreements which may affect the cultural area. We saw this recently in the case of European cinema. So what we are seeing at the current moment is two lines of logic. One is the public good line, the other one the economic line. How we can reconcile these two lines directly in cyberspace?

From Online participants:

There's still quite a bit of discussion going on in the chat room. Allison Wheeler who is the CEO of Wikimedia is talking about what they are trying to do with automation software. Ram Mohan says the Internet provides a unique way to revitalize a suppressed language if a community exists to support it. And a more controversial topic is the governments here talking about promoting diversity when the reality is that many of them restrict the import of foreign content by placing taxes on it.

RIYADH NAJM:

How can we have cultural diversity on the Internet when it is not commercially viable? If we can address these type of questions genuinely and openly, I think we can come up with complete solutions on how we can carry this on forward. This goes back to the roots of how the Internet has developed over the years, that everything that you see on the Internet must have commercial viability. Otherwise, it might not take off. And with having this background all the time, we will always have issues on the Internet that we really cannot have be implemented. Unless we have all the stakeholders of the Internet be participating in that governance, we cannot really fulfill all that we need.

From the floor:

There must be the market demand for the software. When we started IDNs five years

ago, people were shouting, "There's no software to support." And that was true. But when there were more and more ccTLDs and gTLDs implementing IDNs and the software vendors found out that there is market demand. They have to provide the IDN support in the browsers, and operating systems. If there is demand, there is software.

ELIZABETH LONGWORTH:

How do you support language and script that are not commercially viable? It's true that the operating systems of Microsoft were over 101 languages. So where you have emerging markets, you can have the market taking care of it. But it doesn't take care of all of them. And, therefore, we have to find incentives and other forms of value. Language and script is a mirror and a vector of our culture. So it reveals a knowledge legacy that goes well beyond preserving our heritage. It opens up to local knowledge systems. It's about the perceptions of value. We have to convince ourselves and our communities and we have to equip them so they can create the demand and catalyze this process. Second point is that there are other techniques, for example, for the Unicode submissions, could we not have a sponsor a language or a script so that at least we can take care of that short-term process. There are also political commitments that are being made by governments in various declarations and conventions. But most of all, we have to convince that there are other forms of value like social value, inherent in knowledge. If we don't take care of that, then we cannot have the social and economic development.

KEISUKE KAMIMURA:

Local content will only come at a cost. Putting multilingualism in place is a tedious work, which requires time and effort. And it means money and people's labor. The question we are facing is not technology itself, rather, how to put required resources together to ensure multilingualism. Another point is localization of software. It has often been regarded as a commercial issue. But looking back on history, commercial viability alone does not seem to explain how localized software has been developed. Localization software has become an issue of political lobbying. Let me take an example: An ethnic group in Europe encourages a software company to provide localized products by providing subsidies. They gave money to the particular software vendor to develop their own localized products. And another example would be an African country, which is reportedly to have talked the company, the same company, into providing linguistic support for one of their official languages. I'm not arguing against such politicalness of software localization. It is good as long as two conditions are met. One is that it promotes the benefits for all. And the other is that it provides the level of fairness and equity that all of us can agree on.

ADAMA SAMASSEKOU:

How we are going to continue? I would really strongly suggest that we move towards establishing multistakeholder programs, with partners who have been working on this question of multilingualism for many years, including UNESCO, ITU, IETF and ICANN and different bodies, such as our own, in the different regions of the world like the African language federation. We have to talk about how we're going to mobilize resources, have the political will so that we can make this a multilingual, diverse world which is enriched by humanity.

PATRIK FALTSTROM:

We hear that the one important thing is that the tools are localized in local languages so local content can be created. And I see personally that many developed countries that

actually do have money, they are using content management system and software that is not easy to localize. And that's pretty bad. I challenge all the governments through their public procurement processes in the developed world to make sure that they are using good software of all different kinds that, in turn, when they are created, will make it easier for the undeveloped world.

CHAIRMAN VASSILEV:

Let me thank everybody. This was a very useful session. There are many conclusions that we, as policymakers, will be able to use as well, not only the technology people, the academicians and the business people.

## 6. Access

**Chairman:**

- **Vassilios Maglaris**, President of the European National Research & Education Networks Policy Committee

**Moderator:**

- **Ulysse Gosset**, France 24

**Speakers**

- **Gabriel Adonaylo**, Regional IP Product Manager of Comsat International, Vice President of CABASE,
- **Vincent Waiswa Bagiire**, Director, CIPESA
- **Jim Dempsey**, Center For Democracy & Technology, US
- **Mohamet Diop**, CEO, Next SA, Dakar, Senegal
- **Georg Greve**, Free Software Foundation Europe (FSFE)
- **Hugo Lueders**, Secretary General, European e-Skills Certification Consortium" (e-SCC) / Director ,“Computing Technology Industry Association” (CompTIA) for Public Policy in Europe, Africa and Middle East, Brussels
- **Prof. Milton Mueller**, University of Syracuse, Internet Governance Project
- **Michuki Mwangi**, Administrative Manager of Kenyan Network Information Centre (ccTLD management)
- **Kishik Park**, President of the IPv6 Forum, Korea / Chairman of ITU-T Study Group 3,
- **Sam Paltridge**, OECD
- **Craig Silliman**, Vice President and Deputy General Counsel for International Legal & Regulatory Policy, Verizon
- **Parminder Jeet Singh**, IT for Change, India
- **Maria Simon**, Chair ANTEL

- **Jonne Soininen**, Systems Engineering Manager, Nokia Networks
- **Bill Woodcock**, Packet Clearing House

CHAIRMAN MAGLARIS:

Access is a very important issue. We have now one billion users of the Internet out of six billion worldwiden. However, I don't want to get into the trap of a statistician that says that my head is in an oven, me feet are on ice, therefore, on the average, I'm okay. I'm a professor at the national technical university of Athens. I welcome you here today. Let's start.

ULYSSE GOSSET:

I belong to TV France 24, a new international channel from Paris which is going to be an alternative to CNN, BBC, and Al Jazeera. The bad news is we have five billion people offline. The good news is that the digital divide is reducing. Bur when we look into the details, broadband as an example, the divide is enormous. 60% of Americans and Europeans have access to broadband but only 40% in Asia and 0.1% in Africa. There is genuine lack of equality in access. Nevertheless, from 1994 to 2004, in one decade, the digital divide has been reduced by seven. It's dropped from 27 to 7. Things are moving.

HUGO LUEDERS:

We are very careful with precise figures. But industry has heard the Tunis call for capacity building as the most important cross-cutting issue. We have moved forward and we are quite sure that over five years we will have a substantial inroad. We will reduce the skills gap in Europe but also outside of Europe because they have exactly the same needs as everywhere.

JIM DEMPSEY:

The next 500 million will be easy because they will all come from China, which has certainly a dedicated effort to develop the Internet. I think that the other 500 million of the second billion will be spread around the world. I'm afraid to say that I worry particularly about Africa being left behind here. I do think that wireless technologies, including wireless broadband offer perhaps the greatest promise in that regard, in particular with regard to the last mile. With the second billion, we are certainly going to see a sharp curve, and then probably a long tail to get closer to the third billion.

MILTON MUELLER:

I don't want to get into a game of predicting when something is going to happen. What is more important is how does the nature of the technology affect the possibilities for expansion. The point is that it's all about the mobilization of local capital and open entry into markets so that people can respond to these needs without having to get approval from governments in a top-down fashion. And in that respect wireless dramatically changes the nature of the complexion. If certain things happen right at the standardization level and the spectrum allocation level, we can see very dramatic progress because wireless allows the much smaller investments to be made, while retaining certain kinds of connectivity and intercompatibility. Unlicensed spectrum allows people to enter the market with new kinds of equipment without having to get licenses. It allows people to create local connectivity. Another point regarding regulating: You can't regulate a local loop if there is no loop. For many parts of the world, the question is not

how regulate the local loop it's how to build it. a local loop. And you can build obstacles to the creation of infrastructure if you focus on just exporting western models.

MOUHAMET DIOP:

The new players pushing for Internet development are telephony operators who have a lot of cash. We need investment capital. But mobile phones have proven that viability of telecom investment is at stake. They are now mobilizing funds to push for Internet development through the mobile. We're not only talking about a given country but on a whole continent. Let me give you an example: Somitel is a subsidiary of France Telecom, and it now provides internet access to more than four other countries using Sat 3. But all these countries pay for the telecom connection, the land transit to access the loop. But they also pay for access to Internet through local transit in France. So all this is going out of Africa for a service which remains in Africa. And that's something which should give us food for thought. We are in a worse situation.

ULYSSE GOSSET:

Are we talking about two and a half billion cell telephones which very soon will be able to be connected to Internet?

JONNE SOININEN:

We have now about 2.5 billion mobile phone users, and we are coming close to 3 billion. Half of the world population has access to telephony. But this doesn't do much for Internet yet. However, the same technology that is used to provide the mobile access can be also used to provide Internet access. But this is not at broadband speed. I think that it is better to start with lower band in that area yet just to get access to the Internet.

From the floor:

I am from the Association for Progressive Communications (APC). Is it a problem of the local loop? It may well be that it is the backbone infrastructure that is missing. If the backbone were there, creative solutions could be found through wireless broadband put in the local loop. And it is also about the costs of international Internet connectivity. There might be solutions possible by completing communication policy reforms in developing countries, to have Internet exchange points. Is there a probability for an international agreement on reducing costs of international Internet connectivity through a body such as the WTO?

BILL WOODCOCK:

There is no international backbone. The Internet is made up of many ISPs in different parts of the world. Some of those happen to be located in the US or Europe, some in Africa. They all connect to each other on a peer-to-peer basis. And those connections tend to be very large. There are many terabits of connectivity at that level. The real problem is in the local loop. We have in some of the most developed countries in the world a local loop connectivity that is less than a megabit. In the US we're falling every year further and further behind other countries because the local loop is typically controlled by an individual company. Is there room for intergovernmental action in mandating how ISPs connect with each other internationally? What form will that take? Are you going to tell one private company that it needs to bear the cost of international transport on behalf of another private company simply because of the country of incorporation? These are not intergovernmental matters.

CRAIG SILLIMAN:

First, we should not lose sight of the fact that the Internet is a network of networks. And in many ways that it is the most successful interconnection model in the history of any networked industry. In a little over ten years, purely through private commercial negotiations, you have over 20,000 autonomous systems, individual networks around the world, that are directly and indirectly connected to one another. I can start an ISP in any country in the world, connect it up to a network and be able to reach any site, any e-mail address anywhere in the world. That is an extraordinary accomplishment, something that probably could not have been architected or engineered by any single group or body, no matter how well meaning or foresighted. With regard to the cost of international interconnection links we need to look at the model. When you are buying interconnectivity on a global basis, you have a choice of literally dozens of providers in a market that is intensely competitive. We have seen prices drop in this market by over 90% over the last couple of years which is almost unheard of in any industry for any service or product. This is a market that is characterized by intense competition and prices that are moving very close to cost. The comments that you hear on traffic from one African country to another that transits through Paris, I do agree that when you look at that it seems illogical and you identify a problem. But I would suggest to you that the problem is not the cost of the international bandwidth, but, rather, the cost of the domestic access. What you are seeing there is an economic incentive to route traffic internationally because the international links are actually cheaper than domestic. If you go back five or six years in Europe, the majority of Internet traffic between Paris and London used to transit through New York. And that was because the circuits between London and New York and Paris and New York were cheaper than those between London and Paris. When Europe liberalized in 1998, lease line prices immediately dropped, the traffic flows immediately shifted removing those international transit costs from the European network providers.

From the floor:

I am from ISOC Senegal. A high proportion of the population in Africa is rural population without any sort of network linkup. They only have a minimum service. How can we solve the issue, like the we did with mobile telephony?

GABRIEL ADONAYLO:

I can give you a specific example from Latin America. We do have zones of Latin America which are rural areas, where there's no real network infrastructure. In some areas there are networks financed by the state. It is called universal service. That is a way of establishing some sort of infrastructure in areas which are not financially viable. It's an infrastructure which would be made up of users who don't really have the resources, and they are areas which are really economically disadvantaged.

KISHIK PARK:

In Korea, already more than 70% of the people using the Internet daily are connected to broadband. Is competition the best way to solve the access problem? I don't think so. I believe Internet should be treated as food or housing. The Internet is not just a mean to communicate our ideas or something like that. This is kind of daily infrastructure for every citizen. We think about collaboration before competition. If we emphasize competition only many citizens could not pay for this very convenient and useful tool. We should think about the practical affordability for Internet usage. We cannot discuss any kind of new technologies without thinking of price or cost.

MARIA SIMON:

In Uruguay, the majority of broadband technology is through loops. And given that this infrastructure is on the basis of very good technology, you can, in fact, have good access to this broadband possibility. In those few areas where you cannot have access, you have Wi-Fi technology. We need to get to people who are economically speaking in a backward situation. The user really does not care whether it's Wi-Fi, local loops or Wi-Max. What the user is interested in is the actual cost, the cost to access this technology.

From the floor:

I'm from Africa: The private sector is referred often on the international level. But we also have local private enterprises. How can we move ahead to have more private companies in this field on the local level?

SAM PALTRIDGE:

I very much agree that competition and the role it can play in building access on the local level is key. You might remember who won the Nobel Peace Prize this year, the founder of the Grameen Bank, which provided a microcredit scheme in rural areas in Bangladesh. Now those of you who know Bangladesh know that it has one of the lowest GDP per capita in the world. And where they went to serve were the areas where the incumbent telecommunication carrier did not want to serve, said was uneconomic to serve. And Grameen Bank went in there, Grameen Telephone went in there and provided telephone service and provided a local entrepreneurial model where village telephone ladies provided service, where the incumbent monopolist would not provide. And they did that in a country that has one of the worst interconnection regimes in the world, because there was no settlement payments that went to that telephone company, Grameen, to provide that service. If you would open up the market, if you give people a chance, you will find new ideas, new ways to provide service, ways to take advantage of the type of innovation. The first thing you need to do is get a commercial core network built out, with competitive principles, and then the government can, in an economical way, provide connectivity to schools and libraries and health centers and so forth. But if you try and put the cart before the horse, if you try and do a universal service type build out from day one without that commercial support already being there, it will be too expensive.

From the floor:

There are business people, entrepreneurs in every country in the world that are constantly looking for business opportunities. What we hear here is that there are opportunities and needs that are not being met. If those business opportunities are not being filled, we have to ask ourselves, what are the barriers that are getting in the way, how do we remove those barriers?

PARMINDER JEET SINGH:

The local entrepreneurship model is very important. But telephone is different from Internet. Telephone has been around in Europe for decades now. You didn't call it "information society" then. You called it "information society" when Internet came in. It's a completely different game.

From the Online Moderator:

Michael Nelson said the following: The genius of the Internet is that it is a network of networks, built using open standards. Universities, government agencies, companies,

and NGOs can all build a network and plug it into the global Internet. Unfortunately, new government regulations for data retention and filtering, for instance, could make this much more difficult and expensive. Furthermore, some proposals for next-generation network standards would also hinder this end-to-end nature of the Net. In five years, do you think it will be as easy as it is today to plug private networks into the global Internet?

CRAIG SILLIMAN:

Mike identified it perfectly right. I think he's identified the dangers. I will take the optimistic stance and say in five years, the problems he's identified will be resolved and the governments will do the right thing and not hindering the Internet with unneeded regulation.

HUGO LUEDERS:

If you speak about access improvement on a local level you have to be more precise. What you're talking here is about technology access improvement on local level. There are real issues beyond technology and access. The real challenge is education, training the work force, development etc.

MOUHAMET DIOP:

In Africa we have observed that the private sector cannot take on board directly the needs for establishing regional needs. These are not financially viable ventures. Governments have to be involved in some way. With regard to regional infrastructure, no telecommunications operator will be interested in what's happening in terms of interconnectivity within the country. Why should you go into a very remote area, whereas you could act at city level, where they can have a maximum cost-benefit. Government would have to take on board establishing infrastructure in rural areas.

JIM DEMPSEY:

What is the role of regulation and the role of government? The simple test is does regulation or governmental intervention expand or constrain access and innovation? In some respects, removal of regulation and licensing requirements can open up, expand access by permitting more innovation at the edges of the network. We're seeing globally, in both developing and developed countries, somewhat of a recent trend towards government intervention that is actually intended to limit innovation and to limit the expansion of access.

From the floor:

I work in the informatics and communication industry in Cuba. I was a member of WGIG, ITU Study Group 3 and GAID. The main obstacles to access the Internet are hunger, lack of education, discrimination, and exclusion. Those who are ill, hungry, illiterate excluded from everything also would be excluded from new technologies and the Internet. Poverty and underdevelopment, to which a large part of humanity is, has an effect on the basic infrastructures in place, such as drinkable water, utilities, such as electricity, and also the social conditions within which people live. The necessary first step to improve and democratize Internet is to try to eliminate those obstacles. But once the underdeveloped countries have undertaken this tremendous effort and sacrifice to create the minimum conditions for them to be able to connect up to the Internet, then they find themselves confronted with a situation whereby they have to pay for the connection up to the Internet at the same level as the developed countries, even though this might also be a channel used by users in the developed countries, which means that, as has already been mentioned before, you can have technical means whereby

you can do away with this paradox. And these poor countries seem to be financing Internet by this system. What can we do to change the situation in favor of those who are less advantaged so far? How we can not only reduce costs, but share the costs. Could WTO or ITU play a role?

From the floor:

What about the situation in Cuba?

From the floor:

Cuba is a small country. Fifty years ago, it underwent an economic war waged on the by the most economically powerful country in the world. Now, look at Google, for example,. If we try and get onto Google, we're told that we can't have access, we can't buy software from Microsoft. We don't have access to fiberoptics. All of our Internet over the last few years has had to go through satellite channels. And they're very expensive. And what we are doing about this, because the cost of connection is very high, we have social appropriation of the Internet. People have connection to Internet, wherever they are, in the mountains, in the schools. More than a thousand schools have connections. A lot of these schools have to put up solar panels. 100% of our universities, research centers and companies that need it have Internet access. We don't prioritize individual use of Internet, not because we don't want that; it's because we can't. We don't have the access to the network as a result of the US embargo.

**BILL WOODCOCK:**

I'm from Berkeley, California. I am pretty much 100% for Cuba with regards to the US embargo. With that preface let me answer the question about Cubans connected to the Internet. The Internet is an end-to-end model. Zero percent of Cubans are connected to the Internet. The Cuban government operates an incumbent phone company which maintains a Web cache. Cubans who wish to use the Internet browse the government Web cache. They do not have unrestricted access to the Internet. And the question about whether there is an inequality in Cuban access to the global Internet, ask yourself whether a Cuban ISP would face any challenges in connecting to a network in the US or in Europe. And the answer is no. These are unregulated markets. They would face exactly the same costs as anyone anywhere else in the world. Whereas an American or British or French ISP wishing to sell Internet access in Cuba would find themselves precluded from doing so by government regulation. So at that level, there's a basic incompatibility between heavy government regulation and the free market model upon which the Internet is built. I understand that this is a choice of each country, and I don't make a value judgment about that.

**MICHUKI MWANGI:**

Kenya has an Internet penetration of 3.1. And this has gone to 10 over the last five years. This is because of liberalization. I would like to look at it as a marketplace. If I go to market, I buy the cheapest product. If your market is produced, you have no subsidies to produce your market, that means it's expensive for you to bring your products to the market, then your products will definitely cost more, so no one will buy from you, you will always buy from the one who is able to produce products cheaply.

**MILTON MUELLER:**

We overlooking a bigger issue. We're basically talking about universal service, about the classic division between the dynamism of the market and the distributional effects of government. And it seems to me the obvious answer to this is that you have to rely on

the dynamism of the market to get you about 80% of the construction of the infrastructure, and that there is always a role for governments and subsidies and redistribution and filling out anywhere from the 2% to the 20%, depending on what kind of a country you're dealing with and what kind of an economy you're dealing with. In the US, which invented the term "universal service," we got about 90% coverage of the country because of competitive market conditions in the 19th century and early 1900s. The Scandinavian countries also had competition during that period. And not surprisingly, it is the US and the Scandinavian countries that still lead in infrastructure penetration. You can do statistical correlations about what factors affect Internet penetration in a given country. And you'll find that the degree of telecom liberalization is a significantly positively correlated factor. So you have to rely on the commercially self-sustaining business to mobilize the massive amounts of capital needed to construct an infrastructure, and you have to rely on competition to drive the costs down and to develop new service contents. But, of course, there's room at the end for redistribution, which extends it to high-cost areas, to poor people, and to people who couldn't get it otherwise.

From email:

Alice has sent in a question by e-mail. She's the national coordinator of catalyzing access to ICTs in Africa. She says, access to the Internet requires reliable backbone infrastructure at both national and regional level, accompanied by affordable, cheap connections to the international network. Could the panel discuss how Africa can develop fast, affordable Internet backbone. We have many ISPs that would find creative solutions into the loop if they had affordable access to broadband backbone.

From the floor:

I'm a former ambassador from France. I would like to know whether there is the use of micro-credit in Africa in terms of Internet use. And what about the link between the electrical network and access to the Internet. Centralized electrical provision does not always work. Have there been specific examples for local Internet access to use photovoltaic energy as a solution?

From the floor:

One of the most important initiative is the East African submarine cable system. However, there are lots of controversies surrounding the project and there is a high possibility it may not come to fruition as fast as the industry needs it.

**BILL WOODCOCK:**

One way that many people are familiar in the home is transmitting data signals over electrical wiring. This works in the scope of the home. The high voltage electrical, long-distance transmission systems are not very well adapted to that. However, they already have right of way staked out with big towers and high voltage wires. Russia, particularly, has been innovative in getting fiber wrapped around those high voltage long-haul distribution lines. The best way to use them, is to use the existing right of way and power cable to wrap fiber.

**MICHUKI MWANGI:**

To the best of my knowledge there are projects that are actually going to try to develop computers that actually use low voltage power. And one is currently in test at the University of Oregon that is through NSRC. It is basically something to use low voltage power that can be set up in a box and shipped out to these kind of remote places.

GABRIEL ADONAYLO:

In Argentina and the rest of Latin America, as in Africa, we've got long-haul, back haul, and transit through the US as well. Now, we don't know when this is going to change, when we will be able to share out the cost of the infrastructure. But what we are doing is try to buffer the high costs. In Latin America, the average cost of access through the submarine cable system will be about 15 000.00- to \$20,000.00 which would be 155 megabits. Now, comparing that with the developed world, the same capacity, \$15,000.00 between London and New York, would give you a capacity of ten gigabits. So we are talking about 60 times greater capacity for the same price. To get around this issue we have been working on setting up exchange points between Argentina, Brazil and other countries in the region so that the local content and local traffic can stay within the region and doesn't need to go through the international loops or pay the transit cost through the US.

VINCENT WAISWA BAGIIRE:

What we try to do as CIPESA is to encourage governments to be users of the technology. If you look at the way Africa is structured, government, like anywhere else in the world, is all over the country. But they don't use the technology very much. As a result, you find it hard for the service providers, the private sector to deploy technology when actually the governments who are biggest recipients, especially in Africa, do not consume technology and rely on old methods of communicating and dealing with other communities. The other issue is advocating and informing ordinary people in East and Southern Africa of the importance of rallying behind the East African submarine cable system to ensure they understand what it is all about and how much money it can save the continent in terms of money used for international traffic.

JIM DEMPSEY:

Our GIPI project has had several successes. One was redelegation of country code top-level domain names (ccTLDs). In a number of countries management of ccTLD is held by outside foreign companies who were not responsive to the local Internet community. We successfully petitioned ICANN under the guidelines they set out and succeeded in having those ccTLD redelegated to the management of a local constituted non-profit entity. That resulted immediately in price reductions.

MOUHAMET DIOP:

In Senegal a very successful example was not to give IP connection only to get access to the Internet but to provide high-speed bandwidth network in order to allow local services. It was the basis for any company to get access. Furthermore the postal office is one of the most important office in the country. They are trying to develop new services to the local community based on the fact that they are able to get supplied connection and very high-speed network to the country. At the early stage of the Internet, private agreements were the initial basis for anyone who wanted to get access to the Internet. In my country, the telecom operator has a settlement agreement with another operator. That can be MCI ten years ago. They pay for the connection. And any single ISP is doing the same. In Europe it was the same at the beginning. But what happened? The European countries talked together and built a network in which all of the telecom operators have access to that high-speed network and it become part of the global network and they stopped paying a fee to anybody else. This paradigm has not changed in Africa. We did not do anything to build regional infrastructure and exchange points that make the African networks part of the global network but they still have their individual agreement where they pay a fee to get access to the cable and the Internet.

GEORG GREVE:

Access is not a binary issue. We have talked a lot now about how to get the basic TCP/IP access, the cable from which the Internet comes. But access doesn't stop there. It's a multi-step procedure. We have even heard from our colleague in India that you can have 100 percent cable and zero percent access if people don't know how to use it. The disability question is a very big one. An example is the proprietary flash standard which is a very nifty graphical something that many Web pages these days are made in, but often unaware that it is not possible to see this in another format people with disabilities would need it. There is no way for them to actually access the Web page. There's also no way for people who, for instance, prefer to use other browsers or prefer to use some other software to access these Web pages. People with disabilities are not the only ones excluded but they have even less choice in finding different solutions. The only good answer I know are open standards. We must have open standards that allow people with disabilities to reformat whatever they are provided with in the way that they can access it.

KISHIK PARK:

Let me explain some about the charting and accounting for international telecommunication services because I am currently serving in ITU Study Group 3. Several years ago, some international interconnection rate set, we remember about 5 billion US dollars every year developed countries that they paid to developing countries. But at that time, mostly we were using some accounting rate system. And today, about 20% of this kind of sediment system are using accounting system, and instead of ALS, they are using some international interconnection rate system. What happened these days? Now, about 3 billion U.S. dollars every year, developing countries are paying to developed countries. Some of the gentlemen from the floor in the beginning requested some international charting arrangements. So this kind of example can show us some international charting arrangement guidelines. It's very essential for the improvement of Internet access globally.

SAM PALTRIDGE:

The most recent data shows outpayments increasing to a number of countries, and to Africa as a whole. That is probably because of the growth of mobile communications in Africa. And if you have a growing customer base, you will start to see some surprising developments in some areas. You will start to see more international infrastructure being connected to that continent. You may even see outpayments continue to increase. There was never a strong relationship between telecommunication development and the amount of settlements that were paid. There is a much stronger relationship for development with reform to telecommunication markets. If you get the policies right, there are commercial solutions that would deal with many of the concerns. For those commercial solutions to work, you need capacity-building, the skills to make them work, the sort of people who do work like packet clearinghouse and you have to set up Internet exchange points to make this system work.

From the floor:

Internet connectivity in terms of policy and cost at the international level is a central element to attain sustainable connectivity in the information society. According to paragraph 48 of the Geneva Declaration of Principles, reaffirmed later in Tunis, access is an issue which is directly linked with the question of the Internet as a global facility, and this medium is governed according to the language of the paragraph, obtaining access for all depends much on a multilateral, democratic, and transparent

management of the Internet. This entails that access to Internet governance mechanism, in particular for developing countries that are left out of the existing governance system, is an important way of facilitating access for all. Moreover, the question of access is linked in paragraph 48 to ensuring equitable distribution of resources. To that end, access for all would be achieved if resources are distributed equitably. On the subjects of the availability and affordability, regulatory, and other barriers to access, paragraph 19 of the general declaration of principles entails a commitment that all stakeholders should work together to, among others, improve access to information and communication infrastructure and technologies, as well as to information and knowledge. To fulfill that commitment, policies governing access to the Internet at the international level should follow the principles of universal sustainable, ubiquitous, and affordable access to ICTs, as promised in the WSIS. On the barriers to access, discrimination against access to infrastructure technology, technologies, and to information and knowledge, with the aim of serving particular interest or policies creates major impediments to achieving a truly universal and nondiscriminatory information society. Users in my country are facing new discriminatory practices over the provision of information and knowledge and related software exercises by some private entities, mostly located in a certain geographical jurisdiction. This practice is mostly followed by those who are in control of the existing Internet governance mechanism. That clearly violates the agreed principle of the universal, nondiscriminatory, people-centered, and development-oriented information society. We, on our part, would seek every single opportunity to highlight this negative, unhealthy, and damaging trend with the potential of being replicated somewhere else, subject to certain interests, during the WSIS follow-up process.

ULYSSE GOSSET:

Can I ask you, what is the number of users in Iran?

From the floor:

The number of users in Iran is eleven million users, around 16 percent of the population. And we are planning to increase in the next two years to 30%.

MILTON MUELLER:

We're still sort of stuck on this dialectic between market efficiency and distributional equity. I hope that we can recognize the value of both of these principles and draw upon the rich empirical experience we have with liberalization processes and not try to recreate the old system of telephone monopolies that was based on a settlement system of the ITU.

CRAIG SILLIMAN:

At Verizon, we are a communication services provider. Enabling access to communications is what we do. We're extremely proud of the innovative services we are constantly rolling out in all the countries in which we do business. We are providing access to communications services in over 60 countries around the world today, and those are the countries with some of the highest levels of access to the Internet and the most innovative, high-quality, and best-priced services.

JONNE SOININEN:

One of the key things is work together with regulators, local operators, local companies where we tried to open up the telecom regulation in the countries to an enabling regulatory environment so that there's a competition and the cost of the services can

come down and would be more affordable for users.

**BILL WOODCOCK:**

Education is the investment which always produces the highest return. That's why we teach a lot of workshops. We do typically 30 to 50 workshops a year in more than a hundred countries over the last 15 years. It is on Internet routing for network operators, regulatory policy for communications ministries, Internet economics for treasury and taxation.

**MARIA SIMON:**

We are a country which is in the middle. We are only three million people, from which 40% do use Internet. We are developing two different plans, one for community access, for social programs, and another for individual access. In community plan, we have about half of schools connected to Internet, and we plan to have at the end of the next year 100% of schools connected. We have also collective centers of access, which are only about 200, but it is growing. Regarding the individual access to Internet, we have some public-private plans about the finances, purchases of PCs, and also we are making a big effort in lowering the prices of the connection.

**KISHIK PARK:**

I'm working for the electronics and telecommunications research institute as a vice president. We just developed Wi-Pro. It's a kind of mobile WiMAX. So in the future years, I think some personalized or some mobile, very convenient mobile devices will be adopted.

**JONNE SOININEN:**

It's very important to see the emergence of different wireless broadband networks and wireless narrow-band networks. New technologies are coming along. The very important thing to remember when choosing between these technologies is the total cost, what the costs of network are, what it costs in deployment, what it costs on operation, and what it costs for the user. This is a combination of multiple things. There is the cost of scale. When you have a lot of equipment you get the scaling factor which enables you to bring the cost down. It's very important cases to use technologies that are based on open standards, that are proven in their use, that have a large global users' base.

From the floor:

I am from the European Space Technology. Modern satellite technology combined with Wi-Fi wireless, for example, can provide competitive access to groups of users. Of course, this needs to have a large market as a target. One might consider that some of the regional development funds, for example, in Africa might be devoted to develop such a satellite system to provide a start-up solution to the digital divide problem.

**MOUHAMET DIOP:**

The first point is to bring the signal to a point. This can be done with a variety of technology. We have seen the CDMA because we want to cover a more sparse area. You don't have a very dense area and you need people to get connected through something like 30 kilometers from one point. So the investment is not high enough. When they want to use the Internet access around these things, they do a mix of CDMA and Wi-Fi or WiMAX and Wi-Fi, or satellite and Wi-Fi. All these mixtures are used, depending on the nature of how the population are distributed in the area. The second

point is the interface. When you bring a computer in a place where people don't have an adequate environment it doesn't work. Why the mobile and the related technologies to mobile are so easy to deploy, even for the Internet, is just because the user interface is friendly enough, even if the person is not literate in English or French. Even if he's literate in Arabic, it will be very easy for him to use that interface, because it did not ask him to change his knowledge or to educate himself in another way in order to use that technology. A final point is the linkage to the Millennium Development Goals. We're talking about services for health, for education, for poverty reduction. Why don't we take the example of Professor Yunus? We have seen that these technologies can be used in order to tackle some real problem of development. And we cannot talk about access without tackling the problem of the funding.

MICHUKI MWANGI:

We need what we call client premised equipment. How cost-effective is it for it to be deployed in a region like Africa, where we know what the income household is per month. If we were to get mobile phones from Nokia for less than \$50, can we get cheap client premise equipment as opposed to where we have to use satellite equipment which needs to \$7,000 for initial investment. That's the only way we can spark the growth. The devices that need to interconnect the endusers has to be equally as cheap.

From the floor:

Speaking about costs, I was interested in hearing from Free Software Foundation whether he is aware of software which has certain freedoms attached to it which help a great deal in cost.

GEORGE GREVE:

It's incredibly important that you have the freedom to adapt your software to your local cultural context, through your language, that you can change it so the users in your country can actually use it. And that is one of the fundamental freedoms that free software offers you. Free software is defined by four freedoms: Unlimited use for any purpose, freedom to study, to modify and to distribute. Here is one example what we are doing It's the scientific education, learning, and freedom project (SELF). It is supported by the European Commission. And it is about creating a free software platform and open standards, that is going to contain free educational material, so anybody anywhere in the world can take it, can use it, can modify it, can build university courses on it, can teach from this material, and we're going to start filling it up with educational material about free software and open standards.

From the floor:

I'm from Summit Strategies International in Washington, D.C.. It's very hard to speak of development without also thinking of empowerment of individuals. Are there societal or gender impediments to access? And if so, what do you think that we can do about them? And are there incentives that local governments can offer to make sure that groups that might otherwise be marginalized, such as women, will be able to have access to the hardware and the software that is necessary for us to even speak of Internet access?

MARIA SIMON:

Education is a critical problem. Even if you put a computer connected to Internet on the table of each one, without education, he will not be able to use it. In Uruguay, even though the literacy is very high, education remains a critical issue. People know how to

read but not how to use a computer or the Internet. In community centers, we put some facilitators in order to approach the community to the Internet. Also in the schools, we will begin with very young people. Regarding women, there is a project with the university for installing a Wi-Max network for women who make handicraft.

HUGO LUEDERS:

There are all kinds of incentives. We have developed a European model of law with a whole series of incentives of all kinds. Tax breaks, public funding, whatever. There are real issues beyond the cable like education. Formal education in many countries of this world is a holy cow and it's very difficult to approach new solutions. In 2002, we agreed on the "Athens eSkills Declaration" which include a lot of ideas for incentives.

From the floor:

Are we giving enough priority to developing computer science and research capabilities in developing countries to enable them to do this work? We have a lot of support for the EU high-capacity backbone research network called GEANT which is now being expanded into a number of African countries as well as worldwide. Are we making enough of that investment? How many of you know about it? And are there things that we should be doing to help exploit that infrastructure capability with the skills to be able to use it?

CHAIRMAN MAGLARIS:

I am the chairman of GEANT. There are about 34 countries interconnected. It promotes the interconnection at very high speeds between 4,000 research and education institutions. All universities in Europe are interconnected at that speed. And it has many satellite projects that support narrowing the Digital Divide within North Africa, in Latin America, in southeastern Pacific. In GEANT we did a very good job and we are very proud of the job.

MICHUKI MWANGI:

We need to do more. In Africa there's a need to build advanced capacity in building networks, building scalable services and scalable infrastructure. There is a project called AfNOG, Africa Network Operators Group which is similar to the North American Network Operators Group. But its main focus is on building high-end technical people who are able to work or build scalable infrastructure and services. Important is that our regulators and governments being trained so that they understand the economics of the Internet.

BILL WOODCOCK:

The Internet is not a basket of potatoes to be divided equitably among a bunch of recipients. It's not a collection of objects. It's labour. It's the collective action of many skilled engineers and scientists and people in industry who are working to provide a service to each other and to the constituency. It's disturbing to me to see, particularly in developing countries, fewer and fewer women every year entering that industry. It is the people who are doing the engineering who ultimately will decide what direction the technology goes. It's very important that we get a balanced representation of people, both in terms of race and in terms of gender.

HUGO LUEDERS:

What we call the competence value chain starts somewhere with the cables, technology and infrastructure. It moves on to knowledge, content and education. At the end of this

value chain you have employment. Training and education even in high developed countries, is still underestimated. Take RFID technologies and the new markets. Only a small number of companies have sufficiently invested in the training of the management and the labour force. Also cybersecurity is a skills issue. More than 60% of cybersecurity failure are based on lack of skilled labour force.

From email:

The developing world needs affordable infrastructure. The panel should address the real issues of affordable infrastructure rather than provide blanket recommendations on the virtue of the market. The prices for mobile calls and connections are so high, the speeds are painful low and you go blind from reading such small text at such high cost.

JONNE SOININEN:

The question of affordable access is a very important one. We can say that we will bring broadband to the developing world. But how many people can actually afford and even use that? Do they have electricity at their house? We should use the same technology that we are now providing voice services to the users. GSM networks are deployed in some of the developing countries and we see a new growth. With regard to "becoming blind reading text on a mobile phone": You are right these text screens are challenging, especially if you have to read them for a very long time. However, the technologies there have developed and are developing. Their screens are becoming bigger. And we are working hard making the browsers, the e-mail clients the user experience better, learning on that what we did on mobile phones when we used them just for calling. And about tariffs and costs: That is a business issue that has to be addressed, especially in developing countries. It is very important that the access to the Internet is affordable and people can actually use that. Affordability and costs have two elements: One is the cost of the service, and one is cost of the actual device, handset or PC.

From the floor:

Indonesia has a uniqueness. We have more than 17,000 islands. That's why we have a big problem in bridging the Digital Divide. Of course, access to the Internet may be the single most important issue to most people. The main problem is the connectivity prices and cost is very high. And if we use satellite connection, it's very expensive. Is there any kind of model to solve this problem?

CRAIG SILLIMAN:

I can't suggest specific technological solutions for the particular issue of Indonesia. What we have seen as we operate as a company around the world is that every market is different from a usability, a regulatory and a geographical standpoint. When you put various technologies and providers up against each other, you push them all to be more innovative and to come up with more creative solutions. And often the solution of picking a single technology and saying this is the single best technology. Trying to run with it can have a very short lifecycle because of the lifespans of technology and the rapidity with which things are changing. As a general principle, we always look for multiple technological options.

BILL WOODCOCK:

APGI, the Indonesian ISP association, has done a wonderful job in getting an exchange point in Jakarta. They have 110 Internet providers interconnected. And they are very eager to start trying to do builds down from Singapore which is where the largest undersea cable crossings in that region are. That's a major construction project, and

that's something that the government could help with by providing rights of way and infrastructure for that passage. But I think the main thing is just deregulating enough to allow that private investment to take hold and solve the problem.

From the floor:

I am with the International Federation for Information Processing (IFPI). Discussing issues like access, infrastructure, affordability etc. there is no need to start from scratch. Use the ITU digital access index which will help to address the issue properly.

From the floor:

I am the head of a technology enterprise in Tunisia. 2015 is a deadline for all of the WSIS recommendations to be implemented. That is fairly near. We should speed up our discussion and move from words to actions.

From the floor:

I'm in the Communication Coordination Committee for the United Nations at headquarters in New York. My question is if townships create a universal education package or tool kit for raising awareness on access and accessibility for everyone everywhere, what would be in it?

GEORGE GREVE:

Software patents are a huge problem. They create monopolies and barriers to interoperability that ultimately are the exact opposite of what we need in order to interoperate or to talk to each other. One of the reasons why the Internet, exists is that there were no software patents on this. And, even people who could have taken out patents didn't.

JONNE SOININEN:

I would like a little bit disagree with that notion. It's not the patents themselves. It's how they are used that make certain technologies more expensive than others. More than saying categorically that patents are bad, we should look at the value of patents and how to make sure that it doesn't inhibit people implementing their technologies. It is also an issue of enabling companies to invest in technology and making better technology. One question there is to make sure that they can somewhat get something back from that. Software patents at least give some protection. But it's very important to see that the proportionality of the royalties and proportionality of the cost doesn't go overboard and the technology can be accessible for everybody.

CHAIRMAN MAGLARIS:

Just 20 years ago or so I was in a similar panel where the chairman was Vint Cerf himself. When he started his speech, he asked who owns the Internet? There was no answer. Now they call it who governs the Internet, but still it remains a big question mark. In the EU we have pillars for the Internet: openness, interoperability, and neutrality. And I don't think there is any conflict with that with the patent issue. It is really an open environment. And as such it is being treated. And this is also a precondition for access. We have to do more to bridge the digital divide, to enable people to access the information society and to find their ways into the opportunities cyberspace offers.

## 7. Taking Stock and the Way Forward

### Chairman:

- **Nitin Desai**, Special Adviser to the United Nations Secretary General for Internet Governance

### CHAIRMAN DESAI:

We now come on the summing up of work in the IGF. The essential point to realize is that this is a multistakeholder forum. It is an open-door forum. It's not a forum with a fixed membership. It is open to anybody who has an interest and a basic bona fide competence in this area to come and enter and join the meeting. It would be misleading to say that there is any such thing as an agreed conclusion or a product of this meeting in the strict sense of the term, because there is no defined meeting. The meeting is the people who are in the room. What we are presenting are secretariat summaries which we do need for our internal record-keeping. And you will have a full verbatim record of the discussions in the main session available online. You are not dependent on any summary. As far as the workshops are concerned, which were organized by different groups on their own authority, you have the one-page reports. The secretariat summary of the IG is not in any way a report which commits any one of you to what is being said in that.

### SECRETARY KUMMER:

This is a very rough summing up. We have had seven sessions so far. A common thread through all the speeches was the recognition that the Internet is now the backbone infrastructure of the global information and knowledge society. And also, all speakers emphasized the importance of multistakeholder cooperation. After the opening session we had five panel sessions in an innovative format of interactive, multistakeholder panels with questions and comments from the audience. We also offered the possibility of remote participation via blogs, chat rooms, and e-mail. We were overwhelmed with the response, so that our server broke down yesterday. But also that has been repaired. One of our moderators called the panel sessions a giant experiment and a giant brainstorming. And he also recalled the Secretary-General's comment that the IGF entered uncharted waters in fostering a dialogue among all stakeholders as equals. The innovative format was generally accepted and well received, and some commentators called it a true breakthrough in multistakeholder cooperation. In parallel, there were 36 workshops that were held in parallel to the main sessions. Let me now turn to the first panel, "setting the scene." It covered a very broad range of issues. The moderator himself recalled that ten years ago, a similar gathering was mainly attended by engineers and academics from North America and Europe, while this meeting now had a much broader range of participation, both in terms of geography, as well as stakeholder groups. One panelist made the remark that four years ago, many people assembled in the meeting room would not have spoken to one another. All of them emphasized the importance of multistakeholder dialogue. Several speakers noted that the IGF is not the beginning of this process, but the middle of it. Much has already been achieved in the WSIS and WGIG processes, and the IGF must build on that. It was remarked that all stakeholders have roles to play in the IGF and that we need to share

experiences and perspectives, need to talk to one another and listen to one another and share best practices. Many of the speakers remarked on the fact that technology moves at a pace that is difficult for policy to match. Those working in policy areas should be as creative as those who created the technology. There were also many comments that expressed the hope that the IGF would not be a sequence of five meetings held in beautiful locations, but the process where the meetings would serve as a check point in that process. Perhaps most importantly, the theme of development was emphasized, with several speakers asking what the IGF could do for the billions who do not yet have access. The main message maybe was that no single stakeholder could do it alone, and therefore we all needed to work together on Internet governance issues in development. And for the IGF to have value, we will have to leave Athens with a clear view of how to move forward. The second session was devoted to the theme of openness, with a focus on free flow of information and freedom of information on the one hand, and access to information and knowledge on the other. Much of the discussion was devoted to finding the right balance, the balance between freedom of expression and responsible use of this freedom; and the balance between openness and protecting copyright. Some panelists pointed out that the two themes are linked and that for developing countries, issues such as better access to the Internet and access to knowledge is more of a priority. One panelist called the possibilities offered by the Internet to create content "a new form of free speech." He referred to the creative use made of the new medium by young people, which under today's legislation, can be illegal. While all panelists emphasized the importance of freedom of expression, two of them reminded the audience that this freedom is not absolute and that freedom of speech is not without limitations, and that the Internet is not above the law. Hate speech, for example, is illegal in both the on- and offline world. It was generally felt that the Internet has greatly contributed to the spread of free flow of information and freedom of expression. However, it has also created an in-built institutional apprehension or fear of new popular empowerment and the curve on freedom of expression. It was remarked that freedom of expression can be under threat in all countries. The session addressed different types of freedom, such as freedom from government surveillance, free access, and the link to human, social, and economic rights. The session turned to the role of the private sector and looked at the relationship between market laws and market forces and human rights and looked at the responsibility of the private sector. The question was asked whether major corporations should use their bargaining power to promote freedom of expression. It was pointed out that many of them do so as a way of engagement. Some pointed out that systems could be used to encroach on rights and repress freedom of expression. Others highlighted that many systems are multipurpose and the same systems can be used for positive purposes, such as the protection of children and, on the whole, the positive aspects of increasing Internet access outweighed the negative ones. For instance, the use of the Internet increases transparency, and this is a value in itself. The session also looked at the relationship between national regulation on freedom of expression and the borderless Internet. As its second main theme, the session examined the balance between openness and protecting rights, the balance between the citizen's right to information and rights of the copyright holders. There was a recognition of different treatment for materials created by using public finance and those created with private financing. There was also a recognition of different business models. Some business models required copyright fees in order to continue production. Some speakers called on governments to enable free access of information on the Internet. They drew a parallel to libraries. Governments bought books for citizens to allow them to gain access to information and knowledge. Should governments do the same with the Internet and remunerate the creators and owners of content? The session discussed various questions with regard to the effect of businesses protecting

their copyrights and battling piracy. Among these questions were the following: Should copyright protection take into account different cultural traditions, given oral cultures and different notions of knowledge? Was there a need to find business models that work with open information, software and standards? The third thematic session was devoted to security. There was a generally held view that the growing significance of the Internet in economic and social activities raised continuing and complex security issues. One of the key issues here is the way in which responses to growing security threats are dependent on the implementation of processes of authentication and identification. Such processes can only be effective where there is a trusted third party that can guarantee both authentication and identification. This raised a debate about who could effectively act as a trusted third party, the state or the private sector. There was a debate as to whether a bottom-up model centered on the role of users was more effective than a top-down model driven by formal government actions. It was widely accepted that the perpetrators of security breaches are intelligent adversaries, constantly adapting their behavior to advances in security technologies and processes. There was a shared view that insufficient attention was being given to proactive and long-term actions to reduce security threats. There was a broad convergence of views on the need for cooperation at an international level. However, it was pointed out that one of the main obstacles to finding solutions was the lack of agreement at the very detailed level of what is a security threat and who are the key stakeholders. There was a very broad convergence of views that the best approach to resolving security issues is based on best practices and multistakeholder cooperation in an international context. However, there was concern about the degree to which information was shared in a timely manner and in a common format, and, in particular, with developing countries. At the same time, concern was expressed about the extent to which information and exchange was being achieved in a fully inclusive manner. The role of users and the opportunity to exploit the intelligent edge of the network was highlighted by many speakers. For some, the role of users had been undervalued in the implementation of enhanced security measures. Not only were better educational measures required, user choice should be respected more clearly. Thus, for example, the setting of clear expectations and principles, within a public policy framework, could enhance the power of consumers to address security measures. It was generally felt that security is a multifaceted issue and therefore it was necessary to involve coordination between different policy communities and actors. For some, this coordination needs to include a clear legal framework within which to operate. One example cited was the Council of Europe's convention on cybercrime. However, others raised the issue of jurisdiction and the particular need for intergovernmental coordination. There was a debate as to whether market-based solutions, which stimulate innovation, or a public goods model, would deliver better security measures across the Internet. For some, the public goods approach offered the opportunity for the widespread adoption of best practice across all countries. A counter view was that innovative solutions were required, and these could only be provided by market-based activities. There was a wide ranging but inconclusive debate about the role of open standards in shaping security solutions. The debate focused on the appropriateness of the open standards in the security arena. One of the key questions here was the extent to which free and open source software and standards would enhance the level of security for all users compared to market-based licenses for proprietary technology. There was a widely shared view that the IGF could play a significant and positive role in fostering greater debate and action with regard to security on the Internet. The role of the IGF in collating Best practices, ensuring the widespread dissemination of information, and breaking down silo approaches to the problem were all highlighted. The ability of the IGF to support the development of a common language in the policy debate was seen as very significant. Yesterday's first

session was devoted to diversity. At the outset, one panelist said the event was not about the digital divide, but called it the linguistic divide. The panelists' views on diversity in the Internet varied, but there was strong agreement that multilingualism is a driving requirement for diversity in the Internet. One participant said, like biodiversity is to nature, diversity on the Internet must reflect, and does reflect, the whole spectrum of human endeavor, both past and future. There was also a recognition that diversity extended beyond linguistic diversity, to cover populations challenged by lack of literacy in the dominating language or by disability. Audiovisual communication was one of the other forms of communication mentioned in this context. There was also a discussion on media for people with visual and other disabilities. Another theme that was mentioned involved the use of the Internet to relieve and someday eradicate illiteracy. The meeting guided the participants through a very complex set of distinctions in subjects covered by diversity. It was generally recognized that the WSIS outcome had put the issue of multilingualism on the agenda of international cooperation. There was a right to a multilingual Internet that preserved and enabled the diversity of cultures, including indigenous cultures. A number of panelists highlighted the many success stories about diversity, while also drawing attention to areas where improvements were needed. The representative from UNESCO drew our attention to the universal declaration on cultural diversity, mentioning that the purpose of this convention was to support the expressions of culture and identity through the diversity of languages. In terms of content, multilingual and local content were widely seen as necessary to bring all people into the Internet. When talking about local content, a distinction was made between international content that is translated into local languages and content developed locally. There are issues with both. For translated content, there are royalty or copyright fees as well as import fees. For truly local content, there are sometimes difficulties with finding the way to express that content. There is also a need to protect that content. The discussion also touched on the value of audiovisual applications available on the Net, especially in communities where cultures are not recorded in written language. There was a recognition of the importance of content that supports those who are not literate and those who are not illiterate in the dominant language. Participants raised the issue of software, pointing out that market forces were sometimes not strong enough to provide countries with software in the languages they required. During the discussion on Internationalized Domain Names, it was generally felt that internationalizing these domain names without endangering the stability and security of the Internet remained one of the biggest challenges. Part of the discussion related to the technical details of IDNs. The discussion included an explanation of Unicode character sets and how language communities need to be involved in making decisions about the code points. The session also looked at the work being done in the technical bodies on improving IDN and on testing IDN in the root zone file. There was a general understanding that the support of IDN involved more than the DNS. It was noted as a positive development by participants that all browsers now supported Internationalized Domain Names. There was a discussion of what the follow-up to the meeting could be. One suggestion was to establish multistakeholder cooperation between the various institutions dealing with these issues, such as UNESCO, ITU, ICANN, and others. Another suggestion related to support of multilingual content that is not commercially viable. Many techniques were suggested and may be explored in initiatives emerging from the Athens meeting. The last session yesterday afternoon looked at the issue of access. Many interlocutors said, pointed out that access maybe was the single most important issue to many participants in developing countries. And the debate, in general, accepted the idea that access remains one of the great challenges facing the Internet community. The last session yesterday afternoon looked at the issue of access. Many interlocutors as said, pointed out that access maybe was the single most important issue to many participants in

developing countries. And the debate in general accepted the idea that access remains one of the great challenges facing the Internet community. The nature of the Digital Divide was seen as being multifaceted and the focal point for public policy responses. A wider range of policy initiatives was discussed but the strong theme was that the introduction of competition and the removal of blocks to competition were of fundamental importance. It was recognized that Africa faced particularly complex problems with regard to access to the Internet. It was also stressed by many speakers that the issue of access was not solved by a specific and narrow focus on telecommunications sector reform. However, it was recognized that telecommunications sector reform was a necessary condition to establish the appropriate framework for increasing access. Key issues highlighted in the debate over telecommunications sector reform included independence and transparency, removal of monopolies, and licensing of new players; competition as a key issues, and what are the barriers to competition and the removal of these barriers; the need to establish interconnection regimes that reinforce the competitive market; the need to develop innovative policy measures such as universal access regimes, through, for example, reverse auctions, to harness market-based solutions to structural issues. For some, the emphasis was not on the detail of regulatory frameworks but on the need to establish market structures which would stimulate investment, especially from local capital, and the construction of local solutions, such as peer-to-peer interconnection arrangements through Internet exchange points. It was also observed that increased local-based activity would increase reliability and integrity of the network. Several examples from Kenya and Senegal were quoted how local IXPs and local routing enhanced Internet connectivity, access and reliability. The comment was made that it was important not to simply import regulatory frameworks from OECD countries but to focus on frameworks that were tailored to local conditions. Hence it was stressed the need in many countries is not local loop unbundling but the building of local loops and ensuring adequate power supplies. The issue of interoperability and adaptability was debated. It was recognized that the plug and play facilitated greater access. Likewise, it was widely recognized that open standards are critical to underpinning greater access for all communities. It was stressed that open standards are, for example, critical in allowing those with disabilities to reformat material into more accessible format. Actions by governments and firms could lead to a reduction in access for key groups in society. The role of enhanced capacity building was discussed extensively. In the debate, the issue was not just focused on the needs of policymakers but in enhancing the level of skills within a country. The debate reinforced the key messages of the Tunis Agenda. For some, the investment in ICT capacity building within an Information Society is tantamount to investing in basic training and education. Without such an investment, the issues of access can never be addressed. There was broad agreement that the most appropriate level to address issues of access is the national level. It was suggested that key stakeholders and the main locus for policy development and implements was at the national level. The debate focused on the role of governments arcs the key stakeholders in ensuring and enabling environment for greater access. The debate highlighted the role of governments as the single largest customer in any given country, and the stakeholder with the ability to link across many policy debates, such as the provision of other infrastructure services such as electricity or access to other government services -- for example, health care and education. Linking policy debates and creating enabling environments was seen as critical for increasing access to the Internet. There was some discussion on the role of new emerging wireless technologies in providing increased access. It was widely accepted – expected that wireless technologies could change the access market landscape. But for this change in the landscape to become a reality, some of the appropriate spectrum regulatory and

wireless technology standards issues need to be addressed. Many speakers raised the topic of rural access and the problems associated with it. It was emphasized that there is no "one size fits all" solution, but knowing the best practice cases would help increasing access in rural areas across the world. The debate also focused on the role of government policies in facilitating increasing access in rural areas. For example, encouraging investment or the government playing a role as a key enabler. The speakers emphasized the issue of affordability from two perspectives, end user and carrier perspective. Many speakers commented that for the end user, the affordability of access device is decisive in using a service. Many contributors highlighted the discrepancy in initial connectivity charges. The relative high prices for international connectivity were noted. For example, the prices on the London/New York route, the most intensely competitive and largest market for international connectivity in the world. Several speakers gave indicative examples such as the price of north-south traffic in the Americas that is 60 times more expensive than London/New York. And last but not least, the session turned to the role of the IGF. It was felt that the significance of the IGF as an initial initiative to put on the table the multistakeholder debates surrounding issues of access and the Digital Divide was of some importance. The ability of the IGF to exchange best practices in promoting access between various stakeholders should help address the issues of inequalities of access. With this I conclude my report, and I apologize if it was a bit on the long side.

From the floor:

I am with the University of Bremen in Germany, and I am happy to announce that a group of stakeholders has agreed to launch a dynamic coalition on privacy which will address emerging issues on Internet privacy protection such as digital identities, the link between privacy and development, and the importance of privacy and anonymity for freedom of expression. We will initiate an open process to further development, clarify the public policy aspects of privacy in Internet governance in perspective of the next IGF meeting. Participants here in Athens agreed that there's a need for greater public participation in technical and legal standardization processes that have a global public policy impact on privacy. They also emphasized that it's important to better include perspectives from developing countries in these processes. This dynamic coalition on privacy is a direct outcome of the two workshops on privacy but it also reflects discussions the main session on security and the workshops on the Internet bill of rights and on freedom of expression and anonymity. We have more than 30 entities who have endorsed or expressed interest in joining this coalition now.

From the floor:

I am from the university of Aarhus. I want to announce that we have established an academic network which is called GIGANET, the Global Internet Governance Academic Network. The "A" is for academic, and that's a big "A." The offer of the research community is to produce serious academic material which can be considered in the meetings of the forthcoming IGFs. We had a symposium with 120 participants. We got a lot of encouragement by different groups. There we will be a second GIGANET symposium in Rio meeting in 2007. In between, we are going to have some smaller initiatives, like summer schools and regional seminars: We also plan to have publications and we will use the Igloo Website as the communication platform for the discussion among the researchers. All researchers are invited to join.

From the floor:

I am Rafi from Malaysia. We will be hosting the World IT Congress in May 2008. That will be a platform where industry players are supposed to converge and therefore

provide solution. Our intention is to complement that Congress with a development initiative to address solution-oriented services and applications for development communities.

From the floor:

Some stakeholders have explored a framework convention on the Internet. We agreed to form a dynamic coalition on frameworks of principles for Internet governance.

From the floor:

After yesterday's announcement on the Internet bill of rights, a group of stakeholders have formed a dynamic coalition to further the discussion and come with some advances.

From the floor:

We formed a dynamic coalition on capacity building. The issue should not only remain on the IGF agenda but be given higher priority. The group of organizations include ISOC, IIC, APC, DiploFoundation, NRO and others.

From the floor:

I would like to announce that we are setting up a dynamic coalition of gender advocates. We would like to call on more parity. Following on to Rio we have gender advocates who met in Costa Rica who are willing to contribute to the process, women and communication activists and we hope this will be open and we invite people to come and join news the gender coalition.

CHAIRMAN DESAI:

I see we added a new term to the debate, the "dynamic coalition." I come from a country where there are a lot of coalition governments, and it's a good concept.

From the floor:

With regard to multiculturalism, it is good for IGF to pay more attention to the values of other cultures. If we want to come to an agreement, it should be a principle to respect other values of other nations. I am from Islamic Republic of Iran, one of my colleagues from Indonesia and the other colleagues and I have discussed during these days the unbalance composition for the panels which do not reflect this diversity of values and cultures. We don't want to push the other to accept our point of view, but we would like to have the opportunity to introduce that special values of our big culture.

From the floor:

I find that the forum in its structure does do what we basically wanted at WSIS. It is, in fact, a multistakeholder approach which will enable us in the future to have new partnership on the national, regional and world level. I do understand that the Tunis mandate has been discussed, and I am wondering today whether we ought to be looking beyond 2010. I do want the spirit of the summit to take place within a format whereby we would be able to come up with specific and tangible results. I don't want this simply to be an event, a meeting looking at different aspects. We should try to find some formal arrangements for international partnerships, for a follow-up mechanism and for procedures to formulate some concrete recommendations also on how governments, private sector and NGOs could and should interact.

From the floor:

I am chairman of MINC, the Multilingual Internet Names Consortium. For a forum that is not a negotiations place you have achieved far beyond what you may have expected. Many years ago, when MINC used to call for a multilingual Internet it was a lonely voice in cyberspace. There were many who didn't understand what that meant. There were some who said, go teach them English. Look where we are today. The multilingual Internet is actually a prerequisite to any form of good governance, because without the participation of the local people in their own local language on issues that pertains to them we're not going to be able to have the type of Internet governance that is necessary for it to be democratic. Today, we have a new faith that everybody has adopted and it is called the multilingual Internet. But now we have a new challenge. What kind of multilingual Internet are we talking about that we want? Do we want a multilingual Internet that helps local community become empowered, to become representative, to harness their identity, their language, and their culture? Or do we just want it to be a forum or a mechanism for selling products and services? MINC will be calling for a charter for this multilingual Internet.

From the floor:

I am aware that it's not the job of this forum to step into government's shoes and substitute them. But having said that, I think it's all well and good that various different IGF bodies should be able to come up with some form of a document.

From the floor:

I think we may be looking at imposing a conventional structure into a new model. As a result we get input on framework and structural review. Maybe one of the output from this is a global institutional reform that we could suggest and existing institutions could consider. I know ITU and all the various bodies are going through reform. Those input from here could be useful so that they can guide into their own reform. We are thinking of a new model of development based on knowledge-driven economy. We should be thinking differently and maybe are suggesting existing conventional structures and legacy systems to be dismantled. Maybe we put some sort of a structure in terms of specific recommendation. And I use the model of the IETF, as a way for us to think about how to structure the discussion in specific areas, whether it's multilingualism, security, or even policy issues. Maybe we can adapt that, but we don't overlap with them, such that their effort will also be strengthening what we are doing. Maybe a group called the Internet Task Force (ITF) will fill in the gaps. We can use the RFC procedure as a mechanism for implementation and adoption, especially for application on the business side.

From the floor:

I am an NGO coordinator in Africa from Tunisia. In the course of our discussions, we have seen that a large number of groups were not present here. I do hope that in the future, these stakeholders will be represented. I'm talking here about women, people with disabilities, and those with special needs. As a representative of civil society in Tunisia and in Africa we have one recommendation. We asked the UNESCO and the African Academy for Multilingualism to come up with a dictionary to simplify IT terminology.

Representative of the African Economic Commission (AEC)

I wanted to inform you of the outcome of the African group's meeting. Two major decisions stemmed from this. Firstly, the setting up of an African regional forum, which will be got up and running in February 2007. The list of subjects for discussion will be

opened within the AEC to try to define the subjects, resources and priorities for Africa so that we can prepare the ground. The other decision is to draft up a letter on Internet governance behaviour for Africa for the coming five years.

From the floor:

The composition of the panels was partly unbalanced. Most of the representatives from the developing countries spoke about the bread and butter issues of infrastructure development, which is very important for us. Other speakers would have perhaps gotten an opportunity to explore how poverty reduction strategy papers could be used in terms of mainstreaming the ICT infrastructure. And they could have spoken how to deregularize or deconditionalize these particular resources in order to mainstream infrastructure development.

Representative of the European Union:

The IGF has been a new type of experience, and it will take some time to digest them and come to conclusions of what it achieved and what the way ahead should be. Let me offer some preliminary conclusions on behalf of the EU. With its variety of themes and topics, IGF was a good demonstration of the fact that Internet governance covers a vast area of issues. One of the questions to ponder when we go forward is whether it will be time to go deeper on fewer issues. This has been a good example of genuine multistakeholder dialogue, a free-flowing discussion among stakeholders who just a few years ago would hardly talk to each other. But this didn't happen by itself. This is a result of four years of the WSIS process, from Geneva to Tunis to Athens. When the road continues from Athens to Rio we should take the next step, building dynamic coalitions and forming partnerships using these IGF synergies.

From the floor:

It's great to hear about all these dynamic coalition. One possible danger is that we might lose track of them all. A facility that is available for all of the dynamic coalitions to make the information available in a central location is on the [www.IGF2006.info](http://www.IGF2006.info) Web site. There's a new main link on the left-hand side of the page called "dynamic coalitions." And by simply clicking on that and then editing the page that you see, you can add information about your dynamic coalition there. Another way for all of us to keep in touch after we go home is via a mailing list which is [plenary@intgovforum.org](mailto:plenary@intgovforum.org). The dynamic coalitions are totally independent. There were comments from the floor today that we want to see some tangible outcomes. I suggest that we might want to think about criteria for procedures for recommendations adopted by the dynamic coalitions. Probably we should consider also a formal affiliation with the IGF, based on criteria like multistakeholder composition and openness.

From the floor:

Things evolved since Tunis. However, we've been working in parallel worlds. On the one side, we have governments, businesses. And then on the other side, we have civil society, NGOs. But this here was a completely different meeting. We've had the opportunity to meet people we hadn't known, people who had never heard of us, met us. Over these few days, we've managed to find what the important themes are right now, because governance is of crucial importance for the majority of users. We all have different motivation. But we still have the same objectives to give a solution to the problems arising from the governance or lack of governance in the Net, and also to give a voice to developing countries. What shall we aim for in Rio de Janeiro? We should discuss the themes that we've decided are very important: Freedom of expression,

interoperability, access, local content, protection of privacy, security. But what is the main challenge for us? It's to go back home, continue to work and forge consensus where possible.

From the floor:

I am from the IT Ministry of Pakistan. The IGF poses an interesting challenge. On the one hand we want to incorporate the views of various stakeholders, which is one of the fundamental requirements of a multistakeholder forum. On the other hand, we expect tangible outputs in the form of concrete recommendations, and implementation guidelines in a limited period of time. Hence, it seems that the conventional model of operations would not suffice, and we would have to come up with more creative ways. Perhaps we could build on the philosophy of open distributed contribution, albeit in a more organized fashion such as the IETF. The idea would be to use the four main themes as a platform for working groups which can work towards a holistic solution. While we recognize that solutions to Internet governance issues are not as cut and dry as the technical problems, there could be a set of solutions to certain issues, giving choices for implementations. It is important that the terms of reference for these working groups would be to come up with recommendations for implementations as much as possible. Another role of the IGF could be in capacity building. IGF could become a one-stop-shop. The IGF Website could have links to other resources like the anti-spam tool kit, the open and free software, the successful models in ICT for development and so on.

From the floor:

I am representing the World Information Technology and Services Alliance (WITSA) which represent 67 national IT associations around the world. We greatly appreciate the multistakeholder approach of the IGF. We noted that it is a truly unique forum, very interesting and valued opportunity for members of WITSA to be a participant. At WITSA I might say we did not find all totally an opportunity to have multistakeholder interaction so we came to Athens somewhat cautiously but optimistically. We are pleased with the outcomes today. The dialogue among different stakeholders was a very important and valued contribution for our business members. Capacity building, information infrastructure access and security remain very important for us. We would like to see more business participation here and WITSA will be reaching out to all of our members.

From the floor:

There were some practical shortcomings. There should be better way for online participation. Workshops should have more time for discussion and less for presentations. But these are minor things. In the end, this was a success. Everyone in the beginning was wondering whether this would work or not, and this has worked very well. The IGF has no decision making capacity. There is no power in the IGF, we have no power to bind anyone to make anything. The only thing we can do in a true Internet spirit is to bring everyone at the same table and have an agreement, in the end, for the way that the Internet works. The agreement is beneficial to all the people who participate in it. And that's the way the Internet has been growing since the beginning. The technical standards of the Internet were never decided, were never formally adopted or binding either. They are just there and everyone abides by them because it's beneficial for everyone to be able to talk to everyone. In Tunis we saw these uncharted waters and now we have put our first foot in the water. And we have to decide whether we want to swim or not. And I think we should dare to swim. We should not be afraid and just stay on the beach.

From the floor:

I am from the embassy in El Salvador. This first IGF became a forum for substantial dialogue, and it followed a multistakeholder approach. We are convinced that many of the ideas which have been discussed will reappear in other fora in order to fulfil the commitments we have undertaken in Tunis. This first IGF has been a great success and we are following the correct direction.

From the floor:

I would like to stress again the centrality of gender in the discussion. There are two key issues that need to be on the agenda, and these are violence against women and pornography in the Internet. Without jeopardizing the open borderless and free nature of the Internet, how do we counter violence against women and pornography? Only with women's active participation we will be able to move forward successfully.

From the floor:

The objective to have a multistakeholder meeting as mandated by Tunis was very successfully done. Now we need to be more cooperative and move towards consensus so that we can see concrete results. Key issues are content, the ethical dimensions, local value and local rights, security and privacy which can lead to accountable and responsible governance. We need also to discuss the issue of pornography.

From the floor:

This format has worked well. One thing that is on the mind of many people is the connection between the conversations in the room and the outcomes. The IGF approach has produced self-organized dynamic coalitions which focus on things such as best practice or areas of consensus or information sharing. We do not focus on a top-level norm setting. That's a different approach for people that are familiar with the UN system, but it has a certainly amount of value in the context of the Internet. It's early, but worth spending some time on how these bottom-up, self-organized dynamic coalitions can and will work, how they fit into the IGF. There may be some learning process about the sort of best practices of dynamic coalitions. Some people are not quite sure what the limits are. Many people would be comfortable with a little more structure on this process. But I must say the idea to start with almost no structure has its value. It opens the door for a lot of diversity and experimentation, and I think that's going to be very useful to everyone. I'm involved in the organizing of the open standards and the access to knowledge dynamic coalitions. The approach in both of these is to be inclusive in terms of membership, maybe requiring some transparency rules for people who join the coalition as sort of a hurdle, which I think is a reasonable obligation. And then to create a space so that the group will seek to reach consensus and best practices in these areas of their interest, which will be as concrete as possible in terms of things governments, corporate sector and private individuals could do. In areas where there's no agreement we should work to permit groups to also express multiple views within the same dynamic coalition so that we see the differences clearer. It's an inclusive approach. Forcing consensus can come at the expense of detail and richness of proposals. If they are going to strike a balance between encouraging as much consensus as possible, but not to the point where they don't allow different models to be presented.

From the floor:

I am from Siemens in Germany and I speak also on behalf of ICC and BASIS. First I would thank the bloggers specifically for bringing the voices from the outside into this

meeting room. That has been one of the experiments of the IGF. And that experiment has worked remarkably well. We had here an experiment of multistakeholder openness and inclusiveness that probably has not ever been tried before in any other UN process. Moving ahead, business believes that the following issues will continue to require our focused attention on a priority basis: Access to connect the next billion users, infrastructure, both fixed and mobile, security, in particular network security and enabling environments which include competition, liberalization, rule of law that promote a positive investment climate.

From the floor:

I am from Amnesty International. There is already a set of globally agreed standards that exist and that can give us guidance and direction when it comes to the Internet. The Universal Declaration of Human Rights does not only protect legitimate free speech, like peaceful political dissent, but also provide an agreed way to determine which speech is not protected, the content that causes people so much concern about the Internet, such as child pornography, incitements to hatred, and violence.

From the floor:

I am from the Russian IT Ministry. One of the most important things for the future of the Internet is international governance for names and domains. We have talked to lots of delegations from various countries about this, and it's of interest to all of them, so we would like this issue to be on the agenda for the forum in Brazil. Security as well is a very important issue.

From the floor:

I'm from the Russian foreign ministry. I have a point to make on security: In Rio we should construct our dialogue on a different basis: security for the Internet user and also for governments. We have to find a common language. Sometimes when we talk about security issues, we talk about different things. Sometimes we understand each other. But sometimes there's a lot of miscomprehension. My wish for the future is that experts on security should try to agree on recommendations which will be addressed to the private and the public sector, the individuals and governments.

From the floor:

I'm a member of ICANNs At-Large Advisory Committee (ALAC). I'd like to submit an ad hoc proposal to form a dynamic coalition on funding the IGF with a special emphasize on supporting the participation of representatives from developing countries and also persons with disabilities, youths, NGOs and civil society. We call on governments of the north, international organizations, bodies such as ICANN, ITU, WIPO, or any others, to provide some adequate funding to bring more people to make this as a real multistakeholder affair. I call on Keidanren in Japan, ICC, Siemens, Microsoft, Amazon, Google, British Telecom, etc. to join.

From the floor:

This is an ad hoc recommendation. Within the next few years we'll start adopting IPv6. As we know, IPv6 has and nearly unlimited number of IP addresses. The price of that will fall to almost to nothing. If we keep the same symbolic price that we have for the package of an IP address and a domain name now, which is about \$10, and continue with the price, the extra money can contribute to the Digital Solidarity Fund.

From the floor:

I am from Barbados. We had a very successful, well-attended first effort of the IGF. Lots of information has been shared, and, indeed, we have all learned something. Recognizing, however, that there will be no formal outcome, we hope that the forum has nevertheless contributed to persuading those who have the greatest influence on the cost of access problem, which we in the Caribbean also share. Finally, we hope that we now better understand that freedom of expression comes with a serious responsibility.

From the floor:

I am from ICANN. This IGF has been a great success. If you move forward I would recommend as someone who has been involved in the founding and evolution of one of the world's first multistakeholder organizations that the most important thing is that everybody remains engaged. And I'll be a little heretical here. The test I'll put to you is, are you sure that the governments are engaged in the dialogue? It's a very important point. It can be very easy to get involved in what you think are multistakeholder structures and find that what's happened is it's become a civil society structure or a civil society and business structure. I'd ask all people who come to take advantage of this unique institution under the UN's auspices. What do you need to do to ensure that all voices are participating.

From the floor:

You've proven here that multistakeholder dialogue works. I have a concrete suggestion, that each of the countries represented here convene their own national IGF. We've heard already about an effort in the Caribbean. And this should be not merely a one-time meeting, but a series of dialogues locally to build a consensus. The guiding principle for those local IGFs should: Think globally and act locally.

From the floor:

The intergovernmental processes are often characterized by speakers saying this is my problem and this is what I would like you to do about it. And that inevitably leads to a process of challenges, difficult negotiations and compromises. And all that has to happen before there can be any attempt at any form of implementation. I noticed in the workshops a very different form of conversation. The speaker often said this has been my problem and this is what I have done about it, and if you would like to join me and take part in that, please come and join me. But if you don't, if you disagree, if you have another method, then that's okay, you do your thing. Join me if you can. And that allows us to move to innovative forms of implementation. Moving towards Rio we will hear many voices saying we have had some interesting discussions in Athens, but we need a process for agreeing universal declarations common consensus global statements. I urge you to resist those voices because that will retreat towards that tortuous process of negotiation before implementation. I also agree with Paul Twomey from ICANN that governments have to be included in this dialogue so that they can see how dynamic coalitions and new partnerships work.

From the floor:

In 2003 when the Swiss team tried to facilitate negotiations in Geneva, we didn't think that three years later on there would be such an open discussion on an issue which is so controversial. It's been a success, because we have been able to have an open multistakeholder discussion. We have touched upon many different subjects which had to be examined and been able to go into depth. Looking at the format of the forum, we should not be too formal. The informality is one of the reasons why the discussion was so open, and why basically people weren't afraid to take up a position on the various

subjects, as is usually not the case within the UN. But we need to improve participation of the developing countries which includes financing. For the dynamic coalition ought to find informal links to the IGF but leave it as flexible as possible. So that everybody can reach also governments ears as Paul Twomey has suggested.

From the floor:

Paragraph 16 of the WSIS states we shall continue to pay special attention to small island developing states, landlocked countries etc. Since I am from a small island I would like to suggest to please the small islands in the IGF in Rio by having speakers from them. All the panelists in Athens were from highly populated developing countries and large organizations. The needs and issues of small island developing countries are not heard.

NITIN DESAI

This was an open-door experiment in a multistakeholder environment. There are no formalities and memberships in this forum but it has worked. However, many things has to be improved. We have to look at format and structure, the balance on the panels. How do we prepare for this? In the advisory group an interesting idea has emerged which is the notion of a network very much like the IETF where you formulate a RFC and ask people to comment on it. There is a procedure for aggregating these comments, taking them into account and a rough consensus becomes the basis for a certain protocol. I know several people thinking in terms of working on this concept. And of course as in the case of IETF, the success would depend on the extent that the product gets used. The real issue here is that policy discussions are more complex than engineering discussions, and there has to be a certain protocol which has to be observed. And the protocol that you have to observe is you cannot argue against a proposition on ad hominem grounds. No single engineer dismisses an engineer proposition because the engineer is tall, short, dark, fair or whatever. It looks at the substance and the content. That basic protocol of discussion has to be maintained. Looking at the forum, I would say that it has worked. But there have been issues of the three cultures coming together and all three have to make an adjustment. I speak now as a person who has sympathies with all three, and I would urge all three to reexamine. We have the world of the UN with its diplomatic culture, which has a certain protocol about how you talk about other countries and which often is reactive rather than proactive. You have an NGO culture which at least in the UN context has been an advocacy culture which likes to state its views strongly, vigorously, because that's the only way they can get that view heard. And you have a business culture, which is very uncomfortable with generalities, defers to focus on immediate practical partnership exercises and applications. In all three cultures we need a little adjustment. Governments will have to accept that in a multistakeholder forum there will be a little more frankness than in a normal diplomatic conference. Equally, I believe civil society has to accept that if the purpose of this exercise is ultimately to lead to joint action, then a certain degree of restraint is needed. If you want to work with somebody, you have to re-think how you approach others to get people working together. And equally, industry has to accept that in a new area like Internet there is a need for a certain degree of discussion of principles. These cultural changes are required. This was our first meeting. In my country we have arranged marriages, and usually the first meeting between the boy and the girl, they are scoping each other out and the conversation tends to cover everything. But at the second and the third meeting they start talking about more specific things, what are your tastes in this area or that area. And it is some time before they actually start holding hands. So let's just treat this as a first meeting where people have just gotten to know one another and maybe it will lead to marriage.

## 8. Emerging Issues

### Chairmen:

- **Nitin Desai**, Special Adviser to the United Nations Secretary-General for Internet Governance
- **Panayiotis Tsanakas**, GRNET

### Moderator:

- **Afaf Belhouchet**, ENTV (National Television Algeria)

### CHAIRMAN TSANAKAS:

This meeting is being dedicated more specifically to young people. As it was declared by the prime minister in his inaugural speech the information society is of great importance to us all, but especially to future generations.

### AFAF BELHOUCHE:

The panel of young people we have here with us will help us understand what future generations have in mind if it comes to the Internet and how we can meet these expectations.

### MAJA ANDJELKOVIC

I am with the International Institute for Sustainable Development. One of the principles of sustainable development is recognizing the need for intergenerational linkages. In this room today we have a number of young experts in various fields of Internet governance. The way that we've structured the session is that we'll have each person do the following: One, complete the sentence, "The change I seek is...." Two, talk about what they are doing to bring about that change. And, three, make a concrete suggestion how we can together facilitate the change between today and Rio.

### GBENGA SESAN:

The change I seek is an equalization of access. We presently speak of a digital divide, but I'm personally afraid that in the next few years, if care is not taken, the divide may get wider. A young girl or boy in the global south pays so much for access, and the access is not even good enough. Meanwhile, that young person's colleague in the global north has access both to the Internet and the resources. And the problem is that in the next few years the young person who doesn't have access today gets into more trouble because the Internet has become central to our lives in everything we do. Speaking about what I do is that we in Nigeria have a group of young people called Youth Parliament of Nigeria. The story behind this is that when somebody of us raised in a policy meeting an issue the moderator told him to keep quiet. He said, what do you know as a young person except music and women? This was embarrassing. They kept us out of the whole process. But how you can speak about sustainability when do you not invest in young people. We came together and said we need to do something about it, cooperating with other countries from Africa. And we launched this youth network. On

the global level, we also have the ITU youth network, which is for young people who go to ITU youth forum projects and discuss different projects. What we expect from the IGF is very simple. The world has subscribed to the Millennium Development Goals. We have eight points on that list. We are asking that we need to draw attention to access. Access should become a fundamental human right. If you keep a young person from food, he would likely die. If you keep him from access then the person would not be able to manage the future. We should add one more item to the MDG list. Item number nine should be universal access for every child in every country, regardless where they live or language they speak.

ITIR AKDOGAN:

I am from Turkey currently living in Finland doing my Ph.D. on the future of electronic citizenship at the University of Helsinki. The change I am seeking is equally enabled electronic citizens who will be aware of their rights and responsibilities and who will participate more in governance processes, including Internet governance. What I am doing for? I have been coordinating youth capacity-building projects in Turkey. Together with my colleagues we train thousands of young people with the emphasis of ICT for development. I am a member of WSIS youth caucus since the first phase. After each WSIS event we are organizing national or local events to inform youth people about what is going on at an international level. What I want IGF to do is to sincerely work and put an effort to bring more people in the virtual world. I am not discouraged to see five billion people disconnected when I see how short time was to reach one billion. Maybe we are not patient enough. In the online everything has to be fast. Lets move forward and do not loose time.

STEVE VASLOO:

I am from South Africa. I am currently a research fellow at Stanford University in California. And my particular experience is in local content and e-government. The change I seek is a generation of underserved youth who are empowered to participate in a digital world. What I mean by that is 1. that they have the access, skills and freedom to create their own local content and 2. that they are aware of their rights and responsibilities and risks on the Internet. What I'm doing to get there? I am currently developing the Digital Hero Book Project. We encourage young people to tell their stories like Ntombi, a girl from a small town in South Africa. We focus on their strengths and on their real-life experiences. Her story is about life growing up in a poor, underserved community in South Africa deeply affected by HIV/AIDS. Her mother died when she was young. She's been through a lot but this also has helped her to focus on her goal to become a teacher one day. When that photo was taken, she said, yes, I'm strong. I can reach my goals. And I want my experiences and my story to help other youth. Ntombi, along with thousands of other youngsters in 13 sub-Saharan African countries have been going through this but have no way to contact each other. The Digital Hero Project brings this young people together through digital story-telling. It provides a safe social networking space. So it's about building capacity, teaching rights and responsibilities and also providing a platform to create local content. What I want to see in the IGF in Rio is more concrete discussions about access and freedom of expression for the youth.

HIMANSHU KALRA:

I'm from India. The change I seek is I want to see a more democratic way of defining policies and regulations. Political discussions have to be more consultative and more representative with voices from around the world and from different stakeholders. Voices of students and young people, the main users of IT, are rarely considered for

policy-making, although these are the groups who are mostly affected by any change in governance. My suggestion is to empower the youth and involve them in these discussions. They are the decision-makers of tomorrow. How we can do it? Introduce courses on Internet governance at the university level in developed and developing countries. Why I'm saying developed countries as well? I feel that the primary philosophy of more equitable access needs to be understood also by these countries. And youth in the developed countries needs to be sensitized to the issues in developing countries. My suggestion to IGF is involving youth, youth empowerment, and youth capacity-building.

**DIOGO ANDRE ASSUMPCAO:**

I'm from Brazil. The change I seek on the Internet, to have an Internet with a dynamic flow of knowledge, meaning that everyone has physical access to the Internet, to meaningful content and the freedom to create, share, and modify knowledge. What I am doing to get there? We support and foster youth participation in different processes and projects. My suggestion to the next IGF is a very practical one: There should be space which I call Web Innovation Village, where people will be able to create and share knowledge and experiences.

**ANTONIOS BROUMAS:**

I am from Greece. I am an attorney with postgraduate studies on Internet law. And my scientific research has been focused on models for governing information, knowledge and culture in the digital age. I consider this case of governance very important, because it actually determines the political economy of our whole information society. The question who controls knowledge, information and culture and the question who has access to it is actually the question that determine the power relations in the Information Society. Today's economies are depending more and more on intellectual instead of on tangible goods. I would argue that before the emergence of the Internet, intellectual property law was actually the main source of regulation in our model of governing knowledge. But today, this is not the case. Since the emergence of the Internet, other sources of regulation have taken its place. And these are mainly contract law and code. And by the term "code," I want to refer to software or hardware that actually regulates our behaviour on the Internet. The most prominent case is digital rights management. These two sources of regulation have removed the exceptions that exist in the traditional intellectual property law doctrine and therefore, they constitute an impediment for future innovation. There are two ways to change this in the future. One is more access to knowledge, and a second is to provide more emphasis on alternative information production. And by that term I refer to all those forms of non-commercial and participatory information production that were made possible through the Internet like Wikipedia, Creative Commons, Blogs, open access publishing, free and open software etc. We need the appropriate public policies that will encourage these new forms of information production. Venues of dialogue as the IGF are most appropriate for such a discussion.

**NIRMAL BUSGOPAUL:**

I am from Mauritius a small country and part of Africa, where I am actually volunteering for a NGO, the Internet Child Safety Foundation. I would like to see more young persons involved in the promotion of safer use of Internet. We all know that young persons are the biggest users of Internet. So if we can incorporate young persons to promote safe use of Internet, this will definitely create an impact. We have started with a campaign on safer use of Internet in the SCDC region in Africa. We have produced materials like posters, pamphlets, bookmarks, among others, to raise awareness. We

go to schools, colleges and cybercafes as well to promote safer use of Internet to warn of the dangers that can be found online and to provide also some basic guidelines, what a young person can do when encountering such materials. What I would like IGF to do is to provide young persons a mean to promote safe use of Internet, organize workshops and build capacity of young persons on e-commerce, gaming, software etc. IGF could consider the creation of an Internet watchdog where one can receive complaints about any matters that are illegal.

AFAF BELHOUCHE:

Many people are surprised by the vital necessity which is Internet access for people in the south. Internet is a need which perhaps can be put up there alongside medicine and health care.

ITIR AKDOGAN:

I have been doing training for a long time and the need number one is money. I'm sorry to say it directly but of course if you have money, you can train more and more people. And the second thing is when you work with youth, the main problem is outreach.

DARUSH AMADI

I am from Qatar University. People using the Internet are normally very young. Is there a way for us to open up this discussion to people who are under 20? We'd like to know what their point is. What do they think of accessibility, access, governance? Of course, there is their parental authority because we say, well, they are underage and they are very young. But we need to find a way to give them a voice.

CHAIRMAN DESAI:

I'm least competent to answer this question. I'm probably the oldest person in this room. But certainly, I think the Internet is a medium of young people. It is something where we need to engage with them. Because quite often the issues which we think are important are not necessarily what they think is important. I have been hearing them, and I have been impressed by how strong is the focus on access as an issue. And surely, I think we are to find ways. We try to do this year, and I hope there are many more young people in the audience, younger than me, who can participate in this and join in the discussion. We should bring more young people into the process.

From the floor:

I am the president of Cyber Law Asia and Cyber Law India. The Internet has no physical borders. But in the last few years, we see a new trend of rebuilding boundaries. What was an unchartered borderless medium is today being chartered into nationalistic mediums as well. To one extent this is a logical conclusion. Why? Because state governments and national sovereignty powers would consider that they also have a legitimate claim to that. But for the young people of the world, the netizens this is an area of big concern. What happens if there are going to be national boundaries? National laws impact cyberspace. Some countries have now gone ahead and started enacting laws which have extra-territorial jurisdiction.

NIRMAL BUSGOPAUL:

I think we cannot have an open gate. It's true the Internet was borderless and it is now being regulated. In my opinion the Internet should be controlled to some extent. We should have some parameters. Take, for example e-commerce. If we don't have the laws that protect the consumers we will have a problem. So we need to have a balance

between to what extent we should control the Internet and to what extent we should let the gate open.

STEVE VASLOO:

For any government, imposing laws and borders on its adult population, there is a certain level of education and an understanding that these borders are there for these reasons, and that is what you get in return. This is in an idealistic world. But for youth online today, they are not conscious of that. So they are expecting, by using Amazon, MySpace, chatting, SMS'ing, they want complete freedom, instant response capabilities and to be online when they can. If somebody puts up a border they see it as a problem and they are looking how they can get around it. What we need is certainly much more freedom and but also a right balance between freedom responsibility and the correct form of control.

ITIR AKDOGAN:

My PhD research is on the feature of e-citizens, and I am focusing on whether nationality will lose importance. So even in today's world, nationalism is rising and in general people have this tendency of losing their nationality. So if for these people we have a tendency to lose their national identities, and the fade-out of nation states how can we put national boundaries on Internet? It's just ridiculous. We just can't and we should not.

From the floor::

I am with the Council of Europe. Over the last 12 months I have been very much involved in the empowerment of children in the information society. Five weeks ago, the Council of Europe adopted a recommendation about the importance of empowering children on the Internet, with regard to their rights and also problematic content, cyberstalking, cyberbullying etc. Children spend in the Council member states spend 1,850 hours a year in front of screens, TV or PC, 750 hours in front of their teachers and 50 hours in front of their parents. 25 million people are users on social networking sites like MySpace, facebook or YouTube. It's clear to me that one of the emerging trends is young people are finding new ways to communicate. They are changing the ways they communicate. They are going to effect cultures and behaviors in the future. With these changes in social networking where are we heading? If a child doesn't have a mobile phone or broadband access are they going to be socially excluded?

GBENGA SESAN:

MySpace is very popular with young people in the West. But if you ask a young person in Lagos what MySpace is he's going to look at you and wonder what you are talking about. The truth is if we don't do anything about it now, it's not going to be a question about what will happen. It's already happening. The divide is already there. There are young people who cannot compete with their peers in other places in the world.

From the floor:

I'm a young Nigerian. I have been fortunate to have access. I have been fortunate enough to have the right people around to give me access to access. Wednesday, we sat with one of the fathers of the Internet. And he said, yes, it's good to be futuristic. But at the same time, you should be able to plan so that you can actually identify what you have done in the right direction towards that plan. There are people who don't have a clue what we are doing here.

From teleconference with Chile:

I am from Chile. What I'm worried about when people talk about access is that we're trying to say too many different things. What about phone access to the Internet? Is it different to broadband access? And broadband access is different from country to country, because it depends on the telecom server serving that public. What we have to say is there are different levels of Internet in different countries. And this influences the content we have access to. We need innovation and for that we need good connections. This is an issue which is very worrying, because when we talk about Internet today, we want very advanced nets which will use innovative technology. And this innovation hasn't really been trickling down to the south rapidly enough. We have very serious problems in South America. Cost is very high to connect to the Internet. This is a problem we share with our African friends.

STEVE VASLOO:

Living in Cape Town and having just recently moved to Silicon Valley at Stanford University, I can tell you that there are varying degrees of access. And access means two different things to where you're based. At home, in Cape Town, I have a dialup connection, because I'm just not willing to spend so much money, it's so expensive to get broadband, although it is now recently available. Whereas, in Stanford it's practically free. So the one billion people who have access are not one homogeneous group. The 25 million American youth who are using MySpace who are fairly tech-savvy. And then are the millions who are coming online now. In South Africa, mobile use with camera phones is very high amongst youths. Youngsters take pictures of each other naked and, to play a joke, circulate that. So there is kind of youth who are perpetrating these offenses against each other.

From the floor:

I'm a doctoral student in Sweden. I would have liked to see as an emerging issue young ladies from the developing world representing their peculiar needs. Because research does demonstrate that they have more impediments gaining access than the boys. So this is just food for thought for Rio, for the future, that we need more women panellists.

From the floor:

There were at least twice comments on the need that there should be more money. And as a business representative, I must say, there is plenty of money in the world that seeks good investment opportunities. However, the other side of whoever is an investor, he sees two variables. One is the expected return. And the other is the expected risk. In order to improve the opportunities for investment in infrastructure, in Internet cafes, in access facilities, in e-learning capabilities, the more we want to improve that, we need to reduce the risks, and especially in some of the developing countries, where we already have an abundance of risk at the moment. So it's not the lack of money, but it's the abundance of risks that prevents investments in infrastructure development in developing countries.

GBENGA SESAN:

I find it quite interesting talking about the risk and the fact that there is money. Now, if the problem is the risk, then I think there's an opportunity to have a symbiotic relationship between the business community and the young people. What are the risks that the businesses have already found? The people can take it upon ourselves to find out how to solve those problems. If we know what the risks are and we know what the solution is, then it looks like we're going to smile until Rio.

Speaker from the floor

We just experienced the title for our Rio event and that's access to access. There are so much facets which you have to address. And the financing, of course, is one of them. My background is Europe. I would be more than happy to share experience with education vouchers which are used in the Netherlands.. You have tax breaks in some countries or incentives of all different kinds. These are experiences which should be shared. There are many other forms of making the required resources available to allow also small and medium-sized companies that never have the resources to train their own people to become involved in education.

ANTONIOS BROUMAS:

The Internet of tomorrow will not be the same as the Internet of today. There will probably be not so many new technologies that will be invented. What will be new will be the combinations and the applications of existing technologies that will change the landscape. There are some examples that give a picture of the future, like mobile technology, like WiMAX, which could finally give an answer to the problem of access and access to access by circumventing the local loop problem. And also the notion of the next-generation networks or the ubiquitous networks that come over and over again more and more often. This change on the Internet will have an impact over the Internet governance debate. But the basic questions will remain the same.

DIOGO ANDRE ASSUMPCAO:

I have a really good proposition for the countries that are going to the IGF. Every country delegation should include one young person. That's a very easy step and very simple. Just we need political will to do that.

From the floor:

I would like to come back to the issue of funding the Digital Divide. I represent the GEANT consortium. To interconnect the US with Europe with 10 gigabits per second, it will cost you per year only 150,000 Euros, roughly. On the other hand, interconnect Istanbul with Athens at 622 megabits per second, it will cost you probably on the order of 2 million. The Digital Divide exists especially when we are talking about high bandwidth, about the needs of schools to get connected. There is a problem of funding and I don't see how the private sector is going to invest in something that does not have a direct return.

ITIR AKDOGAN:

We already have e-learning and all these e-programs for a while at university and it also enables people who cannot travel to other countries for education, who sometimes cannot pay the fees. So when it is online, cheaper and easier, it can for sure change the education system. Internet can also encourage people to participate more in democracy. Internet helps us to get more and more information. Citizens are becoming more informed. And when you are more informed, when you know what is going on in the other countries you are becoming more demanding from your own system. You are becoming active.

FLORENCIO ULTRERAS:

Sometimes, there's no open access to teaching material, which is why I would like to applaud the initiative which wants to give us free access to content and to teaching material, because we need access not just to technical tools but also to scientific

journals, which is the only way forward. Free access is the only way forward for the Internet. In the southern countries, we have very little access to scientific journals and for developments included in these texts.

**TITI AKINSANMI:**

In Mauritius we have cybercafes. One of the major issues was online gaming and chat. Having relatives in different countries who prefer to chat rather than use the telephone. Chat is also very common in Mauritius to make friends.

**ANTONIOS BROUMAS:**

Well, in Greece we lack education on the Internet yet. Most young people just are using the Internet to surf and explore content. I would be a liar if I would say it's always legal. But I believe in the positive aspects of the net, that somebody that starts using this medium will become more educated and than respect also the law.

**GBENGA SESAN:**

For Nigeria, I will say three things. One is e-mail, two is work creation, and third one is combination of education, information and entertainment. An average person going to the cyber cafe is going to browse and spend time searching for content. Making money online is a very big topic in Nigeria today.

**CHAIRMAN TSANAKAS:**

A lot of issues have been raised, so it is very hard for me to summarize all the views that have been heard here. First of all, we have heard a little about access control. That is becoming more important as online content outpaces traditional non-electronic media content. Education has been considered of paramount importance for all the people. Another point is that there still exists fears that the Digital Divide is not shrinking, but instead it is widening. We have to have the new culture of e-citizenship and adopt democratic institutions for the new digital era. And the challenge of safe access is very important for children. We have to admit that views and needs of the young people should be treated more seriously as they perceive the modern information technology and social issues in a rather different way than the earlier generations.

## 9. Closing Ceremony

**Chairman:**

- **Michalis Liapis**, Minister of Transport & Communications

**Speakers**

- **Nitin Desai**, Special Adviser to the United Nations Secretary-General for Internet Governance
- **Augusto Cesar Gadelha Vieira**, Secretary-General, Secretariat of Information Technology Policy, Ministry of Science and Technology and Chairman of the National Internet Steering Committee.
- **Adiel Akplogan**, CEO, Regional Internet Registry (RIR) for Africa - AfriNIC

- **David Appasamy**, Chief Communications Officer, Sify Limited, India
- **Jeanette Hofmann**, Berlin - Researcher, Social Science Research Center
- **Michalis Liapis**, Minister of Transport & Communications, Greece

**MINISTER LIAPIS:**

I think that this forum was very successful. All of the stakeholders, governments, private sector, civil society, academic and research communities all had the opportunity to come into contact with each other, to express their views, and to submit proposals and questions, as well as setting down very firm foundations for establishing democratic institution which the Internet should be shaped into. So, once again, it remains for me to thank you most warmly.

**CHAIRMAN DESAI:**

Thank you, Mr. Minister. Mr. Minister, fellow panelists and friends, we are now coming to the end of what has been, I think, four very exciting days. We've had a lot of substantive discussions, and this is not the time to get into these issues of substance, but I think it's very important to recognize what is it that contributed to making this event, in my terminology, an outstanding success. We came here four days ago, there were 1,300 of us who registered for this forum, I suspect that a very large proportion of the ones who came were a little apprehensive as to what was going to happen. I think, by and large, what has happened has been something that the reactions range from a really substantial who have come to me and been full of praise, have been very enthusiastic, have basically said, this is good, this is what we want, we are going to come again. Some perhaps were a little less comfortable with the way things have gone, but nevertheless participated with commitment and dedication, in fact, I think everybody did. And the overall assessment that I have sensed from people is that, basically, the forum has worked. And one reason why it has worked is the nature of the Internet itself. I think the Internet philosophy of bottom-up, of people of diverse cultures from different countries working together informally in order to make things work somehow seems to have percolated through even into our debates and our deliberations. And in many ways, what we are seeing is really one of the great, potentially greatest, impacts of the Internet, the way in which it can bring people together from different parts of the world and make them feel that they are part of a single community. I think this is truly extraordinary. This borderless characteristic of the Internet and the way in which we communicate, when I send an e-mail, I don't have to put any country code or anything in it. It essentially just goes to the person with an e-mail address. There's no stamp, no national stamp, nothing of that sort is involved. And this borderlessness, this capacity of the Internet, because of the way in which you use it, because of the active involvement you have to have as a user in using this Net, is what I think underlies also the way in which this group came together virtually like a community. There are many other things one could say on the substantive agenda. I have said much of that in the morning session. I really want to end with a story. As you know, the country I come from, India, and your country have had a long history of association. And there was one particular association 2300 years ago when there was an Indian emperor. He was in communication with one of the Greek kings, who was a successor king to Alexander. We called him Salukis Nicator. And he wrote to this king and says that he had heard a great deal about Greek culture, and could Salukis Nicator please send him a jar of Greek wine, a Greek woman he could acquaint himself with, and a philosopher. The reply he got was that, yes, we can send the jar of Greek wine, we can certainly send a

Greek woman who he can get to know. But the Greek law would not permit them to send a philosopher. Since you will not send your philosophers out, we decided to come to Greece to imbibe some of the democracy which is embedded in the stones of Athens and more particularly in the Acropolis. And in many ways what we have done here is, in effect, to repeat the agora of ancient Athens. And the message that we are sending out is that this agora is an Internet for all, the poor, the disabled, women, people in remote areas, people who do not use English as a language, people who are not familiar with the Latin script, and that if the Internet is to realize its full potential, it must be an Internet which truly is accessible, usable, and safe for all. This is the basic message that we have got from this forum.

AUGUSTO CESAR GADELHA VIEIRA:

As the co-chair in charge of hosting the next IGF meeting in November of 2007, we will face the difficult task of matching the high standards achieved here. It has to be noticed that this is a unique experience within the United Nations system. And what a wonderful experience happened here. As a country which for some time has already adopted a multistakeholder approach in Internet governance within its own borders and in the management of its ccTLD, Brazil welcomes this first meeting of the IGF as a successful step towards the full implementation of the Tunis Agenda. Brazilians are also willing and ready to participate in all other initiatives that were agreed upon in the Tunis Agenda. We believe that multilateral, transparent, and democratic mechanisms of Internet governance are essential to the building of the inclusive, people-centered, and development-oriented information society envisaged by the millennium development goals. Bridging the digital divide is the greatest challenge before us. In the Tunis Agenda, it was recognized that Internet has become a facility available to the public and that its governance should constitute a core issue of the information society agenda. It's time to extend its availability in accessibility to every human being through the reduction of interconnection costs and multilingualism. In this regard, we hope the Rio event may fulfill, at least in a great extent, all the hopes and expectations that have been raised and wonderfully expressed in this event by people from all over the world, young and elders, women and men, from many cultural and social backgrounds. We would like to make a vow to work hard in order to build in Rio a suitable, cozy, and welcoming environment to discuss the important themes we considered here and others that need to be faced. Let me mention our special interest in taking part of the process of enhanced cooperation, which should enable countries on equal footing to carry out their roles and responsibilities in international public-policy issues pertaining to the Internet as put forward in the article 69 of the Tunis Agenda. We are willing to work towards finding venues to achieve the goals set in this agenda while ensuring stability, security, and continuity of the Internet. It is in this spirit that we would like to invite all who participated in this meeting, as well as all those stakeholders around the world, in particular, those from developing countries whose struggling is more economically stressing to come to Rio and actively participate and help make it another successful IGF meeting.

ADIEL AKPLOGAN:

I will talk here in the name of the technical community attending this forum. We believe, that this new stakeholder space for dialogue has been a success. For us it's the way for something great in front of us. The dynamic which we have seen here, which requires dialogue, cooperation, and experienced chairing, it's what we want for the whole governance and management of the Internet. The Internet community as a whole see this first IGF meeting as an important step in facilitating a better understanding of the Internet-related issues. We trust and we are calling for this dialogue to continue among

stakeholders. But this has to be done at several levels -- locally and regionally -- that will allow us to have greater global event like this one. Dialogue is dependent upon commitment and capacity-building, capacity-building not only for individuals, but also capacity-building for institutions. What happened this week is similar what we experienced when we established AfriNIC. We have gone through quite the same similar process where we have to put together all stakeholders in our region to work together upon the setup of this organization which addressed one of the issues we were facing in Africa. This fundamental principle, which is cooperation and collaboration, on which AfriNIC was based, is true for all other Internet community organizations. But the ability for people together to work in a multistakeholder way, it's not only the issue. As we have seen throughout this week, the Internet is there. But as the previous panel has said, access to access is key. Access to Internet and to the information on the Internet, to the knowledge, to the skill, is fundamental for the future development of Internet, and especially for us, from developing country, because without access, we cannot achieve what we are working on. The multistakeholder dialogue and the focus on access and capacity-building, we think it should continue toward the Rio meeting.

DAVID APPASAMY:

I am from Chennai, India and I am speaking on behalf of BASIS, the Business Action in Support of the Information Society and the International Chambers of Commerce (ICC). I would like to start by recognizing the contribution of all who invested themselves in this process. As I acknowledge all these people, it reveals how extraordinary this event has been. Not only do the number of participants surplus expectations, but the great diversity of groups and perspectives has actually ensured its success. As you know, the last ten years have been a time of hectic expansion of the Internet. Opportunities have appeared. Problems have emerged. Technology has advanced. And interests have crystallized. This forum has been an opportunity for all of us to reflect, to take stock, and to catch our breath. In doing so, this first IGF has done exactly what was proposed a year ago hoped it would do. It has brought us all together on an equal footing. Over the last four days, we have exchanged perspectives, discussed best practices, and shared our thoughts about the way forward. We have had the opportunity to present our understanding of what is being done, what has to be done, and how best to do it. What's more, coming together has been a way to break down walls and to build bridges to others who share common goals. As we look ahead to the next IGF, we see the need to focus even more on the discussion on development. That's because while we can be proud of the capacity building that has been started this year, the many challenges of development need greater attention. These are not just lofty ideals. They are opportunities to change lives. Making real progress in this area is important. To every six-year-old in Ghana who wants to learn to read, to every 30-year-old in India who can expand the scope of business online, and to every rural village that wants to create opportunities to secure its future. We all have a responsibility in making these a reality. In India, we see the Internet as a powerful catalyst for economic and social change. Business helps this process through its investment, expertise and innovation. However, as many existing partnerships demonstrate, pooling resources and expertise with other stakeholders can strengthen efforts and expedite progress. While some of the challenges may seem daunting, we must rise up together to meet them by remaining committed, creative, and cooperative. Otherwise, there will be profound consequences, and painful missed opportunities. We have made progress in India, but I see firsthand how much more there is to do. The IGF dialogue has just started. There are more people to involve, and a long way to go. The discussions this week have made one

thing very clear: No single group with manage or resolve all the challenges by itself. So it must continue to be a multistakeholder commitment where we all work together to succeed. Some have asked where the action is, and what tangibles have been achieved. Well, the wisdom and experience gained are of great value in and of themselves. If we go to plant these seeds at the national level and cultivate them by working with all stakeholders at this level, they are certain to bear fruit. When we come together again next year in Rio, we hope to see even greater involvement from all stakeholders, particularly those in developing countries. The second IGF can be the opportunity to drill deeper into the issues identified, and perhaps to offer workshops focused on practical skills that can be used to further national ICT strategies. This first IGF has laid the foundation. It is a start of a legacy we all have a stake in building, one that will ensure the inclusive, people-centered Information Society to which we all aspire.

JEANETTE HOFMANN:

I would like to share with you a little story that I will take home from the forum. It happened on Tuesday when I was moderating a workshop. Although it was late, the room was nonetheless packed and all chairs were taken. Then somebody from the German foreign office walked into the room, and since no chair was left, she chose to sit on the floor. On the floor, I should add, of at least temporary U.N. territory. So what makes this incident a symbolic incident? I think it is the striking difference to the seating order that we are used to from WSIS, but also from other intergovernmental processes. The forum has no seating order. There are no tables for delegations with name plates on it, and above all, there are no time slots for nongovernmental actors. Governments have queued jointly with civil society and private sector in order to take the floor. The forum offers the great opportunity to experiment with new formats of communication and consensus building across all sorts of geographical, cultural, sexual and political boundaries. The Secretariat and the chair are taken great effort to maximize the speaking time not only for panelists but also for the audience. I think everybody who really wanted to take the floor had the chance to do so, and this is nothing we should take for granted. I think it's quite unusual for a conference, a meeting of that size. The great innovation we have been witnessing here is the setting up of a global talk shop in the most constructive sense. The fact that the forum has no mandate to make binding decisions is the very pre-condition for equity among all stakeholders who attend this meeting. However, in order to make good use of the forum, it is vital that all stakeholders recognize and adopt this new venue as an innovative place of policy making. While it is good that governments attend the forum with the intention to listen, as has been pointed out several times, it is important that they also practically engage with civil society and private sector and work on concrete solutions. And while it is good that the private sector is present and shows its willingness for dialogue, we hope that industry will also reach out to other corporations and strengthen particularly participation from developing countries. And while it is good to meet again so many friends from WSIS we need to keep in mind that there will be many more people attending also from civil society if we could provide them with funding. In order to make the forum a truly open space for participation, it is necessary for all of us to find financial support for those who lack the means to come here. In closing, I would like to bring to your attention a few thoughts regarding the future forum meetings that we have been considering among civil society participants. We have been wondering how to strengthen the output orientation of the forum, and how to make sure the forum will become practically relevant. It has been recommended to lessen the number of themes and focus on specific issues such as capacity building and access. The forum should provide sufficient space to get into these issues, and the forum should encourage the

development of practical solutions, both in workshops but also in dynamic coalitions that are about to form. Such practical solutions should be put on public record of the forum. In so doing, the bottom-up process can gain some official recognition which, in turn, may make it easier for all stakeholders to participate.

MR. KAMARAS:

Some of you may recall that when the children's questions were introduced during the opening ceremony, there was a mention that these questions could be said to constitute an informal agenda, one that was full of substance. We have created a little video to remind you of these questions and to include some of the images from the Athens Internet. (Playing video.) Well, the children who posed the questions are here with us again this afternoon, and I have to say that listening to the discussions over the last four days, our impression, mine and our colleagues from the Greek organizing authorities, is that these questions can be, perhaps, tentatively answered as follows. With regards to how will the Internet be five years from now, one can only say that the Internet is a child, just like you, and is expected to change rapidly within the next five years. Now, the IGF will contribute to the development of the Internet through its capacity building process, and the reinforcement and enhancement of the fundamental principles of democracy, transparency, and respect for other's rights. With respect to question number two, with Internet development, could each country maintain its national identity, the active participation in the Internet of every country and all peoples will not only preserve national identities but will also facilitate their spread all over the world. In an era where globalization is presented as a unique opportunity, a window to the world, so all national identities can flourish, interact and prosper. In question number three, in what way can this forum contribute to creating a multilingual environment on the Internet. Multilingual is definitely among the forum's top priorities. It will be encouraged and fostered through the increased support of local content, the expanded use of local languages and dialects, and by preserving automatic indexing. Furthermore, new technological achievements should be permitted to support natural speech and communication as well as continuous innovation in the area of search. With respect to question number four, how can Internet access become a reality for poor people, there are plenty of things we must do, to make sure that the Digital Divide is transformed into a digital opportunity. Funding by government and/or international bodies is crucial, of course. However, the constant exploration of new technologies as well as the promotion of best practices will also be a critical step that this forum must undertake. Indeed, we expect that within the next couple of years, the first concrete efforts should materialize and relevant results should be reported. And finally, how can the forum protect the young children's rights as far as the Internet is concerned? The forum, the whole global community, surely, puts the utmost importance on children's rights. Over the last four days we have sought to highlight all possible actions that should be undertaken, notably the education of users, especially children and parents, technological innovation, and one might call it enlightened Regulation. This ensures that your rights are respected and protected, and at the same time does not hinder in any way your access to the wealth of content and knowledge available online.

MINISTER LIAPIS:

Now I'd like to draw this conference to a close and give you my conclusions from the first IGF. The objective of the IGF in Athens was to create a forum for dialogue between civil society, the academic community, the private sector, and governments. Our desire was to take note of all ideas and reflections, and these could become the basis for their implementation on the way to the next forum in Brazil. So in Athens at the IGF, we inaugurated a procedure where we would like to deal with the challenges by the

Internet, and we created a dialogue platform for the multistakeholder society, a pluralist platform. And from the conclusions, I can say that the first IGF was not just a meeting point for participants, but also it evolved into a forum which really improved coordination and cooperation amongst participants. It offered us all the opportunity to share a common vision and to make common progress. So we shouldn't think of the forum as a single event. No, it became part of an ongoing dialogue of cooperation that will allow us to connect better and to have more national and regional coordination. The IGF was open and inclusive. It promoted the participation of people from all groups and from all parts of the planet. The IGF activities should be generally oriented towards creating and promoting the infrastructure which will allow better access to the Internet for all people in the world. Undoubtedly, the creation of these structures will allow all institutions to participate in democratic governance of the Internet. And this will guarantee that the resources and services will be shared out equally between the people of the world. The open character of the Internet is part of what makes it unique and could be a tool to further develop our societies. Internet users exchange ideas, experiences, information, and that way contribute greatly to making us all more knowledgeable about what's going on. And this multiplies the value of the Internet for citizens, societies, businesses and governments. The open character of the Internet is linked to the free flow of information and is guaranteeing freedom of expression. These are two vital issues for all democratic societies. The power of the Internet and its resonance can be found in its democratic nature. And this is what the IGF has been promoting. Strengthening free access to information and education, we are strengthening the information society, and we cohesively promote social development. Within the context of the 2006 IGF in Athens and on the specific issue of openness, we discussed what would be the adequate regulatory political and legal framework which would improve and guarantee the open character of the Internet. First of all, it's a public means of communication, which means free expression for all citizens. But do we have limits to freedom of expression? And where should we draw the line? Secondly, laws of the market and citizens' rights. What about software and hardware manufacturers, what about ISPs? ICT technology gives people the right tools to create content. You're a consumer, and at the same time, a creator. Do we have copyright in this case? We have specific issues related to intellectual property when talking about the Internet, because we should protect the creative information, but we should also allow access to information. So we need to find new copyright rules, which will be adapted to the working of the Internet. The Internet is both a great opportunity for freedom of expression, but it also is a threat for the abuse of human rights. So the IGF should examine how we can guarantee freedom of expression, but also guarantee citizens' rights. Sometimes there is a contradiction, and national governments go against the ecumenical character of the Internet. This does happen on occasion. The second specific issue is security. We have made progress, but it's not enough to guarantee security and safety over the past five years. We should exchange legal and regulatory experiences between countries and the relevant international bodies. We should coordinate between existing working bodies at the international level, so they should regularly either institutionalize new practices or communicate to us their new practices. How can we integrate in national legislation the international convention on cybercrime? How can we establish any sort of common optimum practices? We should have best practices actually awarded a prize to the 2009 IGF in Egypt. But there is even more. How we manage crucial information like medical records? What about national security issues? The third issue, that of diversity. What we have discussed is the differences that we have on the Internet in the three different dimensions, the linguistic, the cultural, and also technological differences we talked about multilingualism on the Internet, and we did have very good discussion as to which direction we should take here in looking at public policy at the government level, at the

national level, at the international level, at the level of users, but also at the level of industry and technology. And from the discussions, it emerged that the language hiatus is linked up with the digital divide. We also discussed the related technical and political problems, such as developing contents and appropriate management of content so that local languages and dialects could also manage this information. And then there was some reflection upon the rights and the copyright. We looked at systematic documentation of languages for which perhaps there is not a structured system for them to actually be written. And the use of Internet by individual communities was also looked at. So what about local traditions and knowledge being protected vis-a-vis the assimilatory effect of the Internet, as well as the effect of automatic translation, how UNESCO and others might contribute to the developing of this system. So there were many interesting proposals as to how you can in fact preserve and also enhance some things on the Internet, for example, research on new technological tools which would enable one to support and promote natural communication, we were looking at the diversity on the Internet, which has to be linked with the three pillars of modern democracy and of modern society, which is democracy, viable development, and also the provision of equal opportunities, but also equal relations vis-a-vis also other minorities. Now, by being able to promote diversity, we will thereby open up the possibilities and horizons for individuals to be able to create knowledge and not simply consume knowledge. It was also said by many that multilingualism can, in fact, this language gap into a factor of multilingualism, and will thereby also enhance local traditions and local cultures and will help in terms of local development in the economy. Fourthly, access. There is a need to link up many parts of those who are considered to be digitally homeless and to bring them under the same roof. I know that it's possible to have access to the Internet. But we have to look at the cost and how that is applied. What about regulatory issues in terms of access by citizens to the Internet, developing the skills that are necessary, looking at knowledge. And you can link this up to the access of citizens to the labor market and to employment. Thereby, access of world citizens to the Internet must be the top priority for any national or international organization respectively. We find in Africa that the access percentage is very low. And that is disquieting. Now, during the Athens IGF, we're talking about access to the network, the role of governments via their policies, actions, the regulatory framework, what the private sector is doing, the role that the academic and research communities are called to play. All they can, in their own way, promote access of users to the Internet, as well as the quality of the actual services provided and the development of technological knowledge and capacity building. Where are the bottlenecks in terms of local access. This is something which does impede to a great extent the extension of infrastructure and services and thereby leads to blocking the possibility of people to access the Internet. And I think that solutions can be provided to many of these problems by technology. You can have a wireless network. You can have satellite services provided. But we also talked about the need to have effective, in terms of cost, infrastructure, which will enable the users to, in fact, have these access services at an accessible price. And these infrastructures should be linked with how you deal with basic issues in the developing world, where you do have poverty, a lack of basic infrastructure, as well as a lack of education of the citizens. We have to look at development of best practices in order to cover the gap in terms of Internet access. And the basic axes of the European Commission in terms of best practices which might be implemented, including development of infrastructure as well as policies which are based on open prototypes and open bases, and being able to have neutrality throughout. As well as the role of software and what sort of advantages might ensue, as well as the role of the 2.5 billion users of cell telephony and mobile telephony. And then, of course, we talked about bridging the gap between access to the Internet within

societies. And we ought to stress here facilitating access to the groups in society which are considered to be the most need or the most sensitive. The words tele, analysis, synthesis, dialogue, democracy, these are all words that come from ancient Greek and are used in our modern Greek language. And these concepts behind the words have prevailed in the work here during the course of the forum and have acted as pillars along which we can move to future development. So I think that the Athens IGF has shown that we can, in fact, implement many small successful steps moving towards the ultimate victory. And in Athens, we have actually put down the first stepping stone. And it has been proven that this is a very good beginning. I think we set down the foundations for a very productive and creative continuation of this effort. Our meeting next November will be in Brazil. The forum is now over. Thank you.

## Rio de Janeiro Meeting, 2007

### Chairman's Summary

#### Overview

There were seven main sessions in an innovative format of interactive multi-stakeholder panels with questions and comments from the audience. These sessions followed the format of the agenda set out in the preparatory process and included five thematic panel discussions built around the IGF themes - critical Internet resources, access, diversity, openness and security – and were followed by a session on both 'taking stock and the way forward' and 'emerging issues'. In total, 84 other events took place in parallel to the main sessions which comprised workshops, best practices forums, dynamic coalition meetings, and open forums clustered around the five main themes.

The entire meeting was webcast and it was transcribed in real time. Both records will be made available on the IGF Web site. All main sessions had simultaneous interpretation in all UN languages and Portuguese and all other events had Portuguese interpretation. Remote participants were given the opportunity to take part via blogs, chat rooms, and email. The panels adopted an innovative format of interactive multi-stakeholder participation with questions and comments from the audience, facilitated by the moderator. Each of the sessions was chaired by the host country and moderated by journalists or independent experts. The meeting adhered to the commitment that the IGF would foster a dialogue among all stakeholders as equals. The innovative format was generally accepted and well received while some participants called it a true breakthrough in multi-stakeholder cooperation. In terms of participants, there were over 2,100 registered participants prior to the meeting, of which 700 came from civil society, 550 from government, 300 from business entities, 100 from international organizations, and 400 representing other categories. The meeting was attended by 1,363 participants from 109 countries. Additionally, over 100 members of the press attended the event. These statistics can be viewed on the IGF Web site at - [www.intgovforum.org/stats.php](http://www.intgovforum.org/stats.php)

#### Opening Ceremony/Opening Session

In his message to the Forum, delivered by the UN Under-Secretary-General for Economic and Social Affairs, the Secretary-General underscored that the UN had used the platform of the IGF to ensure the Internet's global reach. Secretary-General Ban Ki-moon referred to the Forum as a non-traditional UN meeting, and as a "new model of international cooperation and, just like the Internet, it is in constant evolution". His message went on to say: "The Forum can develop a common understanding of how we can maximize the opportunities the Internet offers, how we can use it for the benefit for all nations and peoples, and how we can address risks and challenges". In his own statement to the Forum, the Under-Secretary-General for Economic and Social Affairs, Sha Zukang, said: "The importance of the Forum lies in its mandate, which enables it to discuss virtually any subject related to the Internet, its governance and its use and abuse". He continued: "The Forum is also unique in that it brings together people who normally do not meet under the same roof". Brazil's Extraordinary Minister for Strategic Affairs, Roberto Mangabeira Unger, also delivered an address. During an opening session, 19 speakers representing all stakeholder groups addressed the meeting. The list of speakers is available on the IGF web site.

Sergio Rezende, Brazil's Minister of Science and Technology, in his capacity as Chairman of the meeting, said "the IGF had a mission to discuss and find ways to ensure that Internet can be a tool for meeting the principles and commitments of the Tunis Agenda, to build an Information Society which is inclusive, human centered, and geared to development."

Other speakers noted that the Forum brought together diverse groups of individuals with the aim of sharing knowledge and experience. Speakers pointed out that the Forum presented all stakeholders with a unique opportunity to catalyze local change. Several participants underlined that the IGF was not a only a space for dialogue, but also a medium that should encourage fundamental change at the local level to empower communities, build capacity and skills, enable the Internet's expansion, thereby contributing to economic and social development.

The theme of development was emphasized with several speakers asking what that IGF could do for the billions who do not yet have access – the 'next billion' emerged as a call for action. Many of the speakers focused on the multiple dimensions of bringing on-line the next billion users. Among the questions raised were those pertaining to capacity-building, education, new governance structures, internationalized domain names and building appropriate national regulatory framework to enable growth and investment in the Information Society.

The main message of this session was that no single stakeholder could do it alone and that multi-stakeholder cooperation was a prerequisite for good Internet governance. Working on Internet governance in development together was necessary and hence the significance of the IGF as providing a new place of dialogue was underlined.

## Critical Internet Resources

Chaired by **Plínio de Aguiar Junior**, Member of the Board of Brazil's Internet Steering Committee.

The first of the five main sessions, which was additional to the four main themes discussed at the inaugural IGF meeting in Athens, heard a number of views from panellists and participants on the various challenges and evolution of critical Internet resources. The panel discussion covered a wide range of topics related to the physical and logical infrastructure of the Internet. As had been echoed in a number of other IGF sessions, one panellist remarked that it was essential to build up community infrastructures, including critical Internet resources, in order to reach the five and a half billion people in the world who did not have access to the Internet.

While the discussion covered a wide range of resources that were important for development, the primary focus was on domain name and Internet Protocol (IP) addresses. Resources such as the cross-cutting theme of capacity-building and the other IGF themes of access and security, as well as the routing and the basic need for electricity, were all discussed as critical to the Internet's development at some point in its evolution. The Internet Corporation for Assigned Names and Numbers (ICANN) and its responsibilities were the focus of much of this discussion.

Many speakers expressed the view that the inclusion of critical Internet resources as a main theme was important in that it represented the fulfilment of the Tunis Agenda mandate to discuss "issues related to infrastructure and the management of critical resources on the Internet". As set out by the agenda, the discussion also included the management of domain name system (DNS), Internet protocols (IP), the management of root servers, standards, interconnection points, telecommunications infrastructures, including converging and innovative technologies, and also the transition to

multilingualism.

A number of participants raised the issue of unilateral control of ICANN by a single government, while some argued that the international community should take a more active role in addressing critical Internet resources. Referring to the Tunis Agenda, one speaker recommended that the UN Secretary General establish a special multi-stakeholder working group within the IGF framework on critical Internet resources. This group's work should discuss the gradual transfer of Internet governance to the authority of the international community. While some panellists generally supported ICANN being independent of governments, others wanted governments to play a more significant role with regard to public policy issues. There was also discussion on the future of ICANN set in the context of the current mid-term discussion of the Joint Project Agreement (JPA) by ICANN and the United States Department of Commerce.

Among the topics discussed was the essential bottom-up nature of the ICANN processes as well as the requirements for regular external reviews of ICANN sub-organizations. Other points covered the relation of governments to ICANN and whether it was appropriate for the Government Advisory Committee (GAC) to have only an advisory role as opposed to fuller powers in terms of international public policy. While one panellist argued that the participation of governments in the GAC was one of ICANN's most important features, another put forth that the current model with GAC as part of ICANN was not a stable model.

Panellists also discussed the eventual exhaustion of ICANN's reserve of unassigned IPv4 addresses. It was made clear that this would not cause the Internet to fail, but this was used to indicate the importance of the effort to bring the IPv6 network on-line and the need for the full interoperability between the IPv4 and IPv6 networks.

One of the panellists made a suggestion in favour of adopting policies that would encourage IPv6 connectivity among all of the Internet service providers. He went on to suggest that governments could choose to subsidize the cost of inter-exchange points that would encourage interconnection using IPv6 address space so as to reach as quickly as possible a fully connected IPv6 system in parallel with the IPv4 system. Another panellist spoke of the effort to create a national IGF following the multi-stakeholder model. She also spoke of the success of self regulation in the UK and indicated that while critical Internet resources were not a critical issue for users, security issues as well as issues of access in developing countries were important.

There was a general recognition of the value of discussing issues such as critical Internet resources in the IGF environment. There was also recognition of the importance of building human capacity as a critical resource. A general sentiment was expressed that cooperation among stakeholders had increased of late and that this increased cooperation was important to progress. As one panellist pointed out, the spread of the multi-stakeholder methodology was an important new protocol for resolving issues of critical Internet resources.

## Access

Chaired by Brazil's Minister of Communications, Helio Costa.

Panellists highlighted that the issue of access to the Internet remained the single most important issue to many countries, in particular in the developing world. Speakers stressed the development impact of the Internet. A theme that emerged throughout the session was that while having one billion Internet users was considered a huge success, the focus should shift towards the next billion and the billions after that.

Several panellists questioned who might be the next billion people to connect to the Internet. One speaker asserted that if people talked about one billion Internet users ten years ago that would have sounded unthinkable. Providing statistics, another speaker pointed out that since the first IGF meeting in Athens last year, much progress had been made in terms of broadband and quality of access, as well as in terms of those actually connected to the Internet.

Participants demonstrated that the underlining theme of the IGF – the multi-stakeholder cooperation – was also very important with regard to access. There was an acknowledgement that governments had an important role to play, but had to work closely with private sector, civil society and the Internet community in that regard. Many participants talked of the need for innovative solutions, including public-private partnerships, and the need for private companies to work with governments and civil society in order to provide access to rural areas.

There was also a notion that every country had to find its own solution and there was no one-size-fits-all solution. In that regard, the size of the local markets was mentioned as a problem for small countries. One speaker pointed to the African experience where a big continent had only a very small portion of the Internet, noting that each country had tried to do it alone instead of adopting a regional approach.

The importance of regional multi-stakeholder collaboration in terms of creating regional Internet Exchange Points (IXPs), was stressed by many speakers. The experience of the regional IXPs was recognized as a good example of the ways in which collaboration can enhance access for users, support local content and reduce costs.

There was a clear convergence of views that governments had an important role to play in creating a solid regulatory framework and making sure that the rule of law was well established and respected. Many speakers stressed the need for open markets, while others emphasized that market forces alone could not solve the issue of accessibility, and governments had the responsibility of designing and implementing universal access policy.

The particular issue of backbone networks was mentioned by many speakers and clearly this remains an important issue. Many speakers noted that local initiatives to enhance access were dependent on the provision of backbone networks, both nationally and internationally.

On the demand side, many of the contributors had observed that access was much broader than connectivity. The link had to be made between access and development and hence the needs of users must be understood. It was generally felt that access cannot just be measured in terms of technological parameters. Clearly prices, quality, availability and content were significant issues, as noted by some speakers.

Many speakers maintained that providing access to the next billion people required new business models and partnerships to support users who were living on two dollars a day or less. As one speaker observed, this probably meant less than two dollars a month to spend on telecommunications and Internet services. Hence the appropriateness and value of access was seen as a key issue in shaping and integrating the use of ICTs into the development process. It was noted that governments were often the single largest buyer of ICT services which meant that demand can be used to anchor new access projects in under-served areas.

Overall, there was a general agreement that the issues of access remained central to the agenda of the IGF and as the 'next billion' come on-line new challenges and

opportunities will emerge.

## Diversity

Chaired by Brazil's Minister of Culture, Gilberto Gil.

The discussion on diversity came out as a very strong plea for diversity in all its facets. In the discussion there was recognition that the Digital Divide was also a knowledge divide and that respect for diversity was a global issue.

Speakers identified different dimensions of diversity: linguistic diversity, cultural diversity, diversity of media, and diversity relating to people with disabilities. More than one person remarked that the notion of diversity extended to the need to include all people, including immigrants living in a nation with a different language and culture and native peoples living in nations with a dominant culture that was not their own.

Panellists made a call for the Internet to be accessible to all. In order to include people with disabilities, use of universal design and assistive technologies were important. One panellist reminded the Forum that an important aspect of supporting diversity in that consideration should be given to spoken languages that were not written and to sign languages that were not spoken and that when written used iconic representations.

One panellist spoke of how culture was at the core of any discussion of identity, enabled social cohesion, and was critical to the development of any knowledge economy. An example was given of the loss of freedom that occurred to African children when they were forced to learn in a foreign language that ignored their culture when they first enter school.

During the discussion, a parallel was drawn between linguistic diversity and biodiversity, and in this comparison linguistic diversity was as important for human freedom as biodiversity was for nature. It was recommended that the precautionary principle should also be adapted as relating to diversity.

The impact of standards and the importance of open, non-proprietary standards was mentioned, and also the use of free and open source software as important elements. Adhering to standards was described as another way to promote diversity, especially with regard to accessibility standards.

The session recorded some progress from the diversity session held in Athens last year. One panelist pointed out that there was less need to discuss issues related to the Internationalized Domain Name system (IDN). Some speakers stressed the need to distinguish between content in different languages and the role of the IDN. It was apparent that the debate had now moved on, though IDN, and especially the deployment of IDN, remained an important aspect of diversity. Some issues were raised concerning the work that needed to be done to prevent IDNs from being a new avenue for phishing and other security threats.

It was also mentioned that the Internet, if available in a local language, can help to change society. The change was facilitated by bringing together the network culture with the local culture through a reduction in the knowledge gap. Some speakers saw a need for finding economically sustainable ways to balance between protecting property while allowing for the free spread of knowledge to all of the diverse populations who needed that knowledge to flourish.

There were several concrete proposals that were made as a possible way forward, including the creation of a group to work on a Global Compact on Languages to find a

way to release copyright materials for localized language use and for representation in all the forms necessary to reach the disabled.

There was some discussion of the urgency of the need to provide for content in diverse languages and formats. Not only was this described as necessary for the world's people, it was described as also necessary to prevent the loss of the world's cultures, as languages, and the cultures they represent, are rapidly being lost to humanity.

There was some practical discussion of how to measure diversity. Full and active participation of all, in particular people with disabilities, was mentioned as the yardstick to measure whether diversity had been achieved or not.

There was a general sentiment that the Internet provided the opportunity for protecting cultural diversity. In order for this to be possible it was said that it should be managed for the benefit of the whole of humanity where all people could use their own languages with their own values and cultural identity. For that, the Internet needed to expand in order to reflect in its content and naming systems the cultural and linguistic diversity as well as regional and local differences that characterized civilization.

As one speaker put it, there was not only a need to get the next billion people on-line, there was also a need to get them on-line with economically, culturally, and socially relevant content in their own language so that it truly reflects the diversity of the human race.

On a final note, as one panelist put it, to respect diversity, the Internet should be a caring, peaceful, and barrier-free place.

## Openness

Chaired by Ronaldo Lemos, Law professor, Center of Technology and Society, Rio de Janeiro

In the session on openness there was a generally held view that openness was a multifaceted and multi-dimensional issue. It was portrayed by participants as a cross-cutting issue with linkages to the other IGF themes, namely diversity, access, and security, with legal, political and economic dimensions.

Several speakers pointed out that openness involved several questions of balance. There was a balance between 'the two IPs' - as referred to by several speakers - the IP for Internet protocol and the IP for intellectual property. It was pointed out that while on the surface there may appear to be a dichotomy, there was no real dichotomy between the two. There was also a question of balance between freedom of expression and free flow of information and the freedom to enjoy the fruits of one's labor. Moreover, there was also the question of balance between privacy and freedom of expression.

The panel and the discussion gave a strong emphasis on the fundamental freedoms, the freedom of expression and the free flow of information, as contained in Article 19 of the Universal Declaration of Human Rights and the Geneva Declaration of Principles and the Tunis Agenda in the WSIS context. It was pointed out that a human rights perspective should go beyond paying lip service to these universally accepted principles.

The observance of human rights was not only for governments, but also for businesses and other stakeholders. It was pointed out that compliance with human rights was a journey rather than a destination. One speaker was concerned that human rights had slipped down the Internet governance agenda, and that issues such as child pornography, credit card fraud or terrorism were treated as priority issues. There should

not be an either/or and solutions to these real problems should build on human rights. The principles that were accepted by all needed now to be translated into practical solutions based on the respect of human rights.

It was also pointed out that law was always a product of society and reflected commonly held standards. With regard to the protection of intellectual property and copyright, it was always possible to make exceptions, as in the case of education. One of the speakers pointed out that open access to scientific knowledge was an essential element in the development process and therefore very important for developing countries. Movements such as Creative Commons were mentioned in this context.

There was also a discussion on open standards and free and open source software. It was pointed out that they may lower the barriers of entry and promote innovation and were therefore important for developing countries. It was underlined that there was no contradiction between free and open source software and intellectual property. It was also recalled that in the WSIS outcome documents, both open source and proprietary software were seen as equally valuable and both models had their merit.

There was also a discussion on what kind of regulation was needed. Several speakers emphasized the usefulness of self-regulation and many favoured a mixed solution between hard and soft law instruments.

With regard to the economic dimension, there was a discussion on market dominance and virtual monopolies and their relationship to openness and freedom of expression. It was also pointed out that the discussion in the IGF had a relationship to discussions held in the World Intellectual Property Organization, in particular with regard to its Development Agenda, and UNESCO with regard to the Convention on the Protection and Promotion of the Diversity of Cultural Expression..

Recalling the discussions held last year in Athens under this theme, participants mentioned that legislation needed to be adapted to cyberspace. It was pointed out that legislation was not something that was taking place outside society, but it needed to reflect the wishes of society and be adapted to what society wanted. As noted by the Chairman at the beginning of the session, the choice of what society wanted was ultimately a political choice.

## Security

Chaired by Antonio Tavares, Representative of the Private Sector in Brazil's Internet Steering Committee.

The security discussion was as complex as it was rich. It was recognized by many that security was a critical issue and, as was the case with access, changed from country to country. Security was seen as a multidimensional issue. As with all subjects discussed at the IGF, multi-stakeholder involvement and cooperation were essential ingredients when trying to find a solution. In the debate on security within the IGF a key issue was that there was not broad agreement on a single definition of what was meant by the term 'security'. Several speakers tried to give their own definition of security; these included national security, security for business, users, network security, and network reliability. One speaker stressed the need for preventing security breaches before the event, while others focused on finding solutions after the event. Resilient and secure networks were also mentioned as key elements in this debate. One speaker referred to security as an attempt to achieve 'control over the future'; as it was not possible to know what the future would bring, it was not possible to guarantee 100% security.

Others concurred, observing that in all walks of life, as with the Internet, security needs

could never be fully met. Other speakers noted that many of the technical tools for secure operations were already available.

Many speakers emphasized the legal dimension of the security debate. It was widely recognized that on-line and off-line should not be treated differently and a crime was a crime. It was mentioned that 95% of the crimes committed on-line were covered by existing legislation. Several speakers pointed out that while legislation may exist, that the problem involved enforcement, given the borderless nature of the Internet. They highlighted the need for high levels of co-operation among law enforcement agencies – a process that needed to be enhanced in respect to on-line criminals.

While some called for more legislation, there was also a warning against over-regulation. Many speakers pointed out that collaborative, multi-stakeholder efforts of cooperation could be sufficient. The forum noted that both hard law and soft law solutions were needed to enhance security. There was a strong call for harmonizing legislation between countries and also for bringing into force new legal instruments that apply to the on-line world. The Council of Europe Convention on Cybercrime was mentioned as a promising approach that more nations should adopt.

In terms of soft law solutions, the representative of the OECD pointed to the OECD guidelines in these various fields. Several of the speakers indicated the need to look at the source of the problem, raising awareness, human resource development, training people to handle the problem as part of the solutions. There was also mention of the need to think about security when designing and implementing network systems, and to think about security in the context of the whole operational process. As the OECD representative pointed out, a culture of cyber-security was relevant to any solution.

Echoing the input received during the session on openness, it was pointed out that the role of the ISPs was crucial. One speaker called for laws to protect them. For some the key issue here was the liability of the ISPs. – an issue that needed to be considered in further detail.

There was a discussion on what type of software was best suited to security, proprietary or open source. There were different views held by various speakers, reflecting the general viewpoints on this topic. It was mentioned that transparency was important with regard to security solutions and one speaker held the view that the open software approach offered greater transparency and that security through obscurity was a flawed concept; open systems and designs that could be audited were more secure. Other speakers pointed out that proprietary software was equally suited and one speaker pointed out that, from a developing country perspective, where designers were interested in developing new systems, it was important to protect intellectual property rights and that therefore, proprietary solutions were important. As commented by one speaker, an explicit public policy demanding open source solutions in procurement processes could limit the development of the indigenous software industry. It was clear that with regard to non-proprietary or proprietary systems there was no one size fits all solution.

It was also pointed out that in the search for international collaboration there were problems related to financial limitations and to the training of law enforcement and also of the judiciary. One speaker spoke of a threat to national and international security which went beyond a cybernetic crime. The importance of this international security was confirmed in the 62nd Session of the General Assembly where there was a unanimous vote on a proposal by Russia on how to achieve security for information at the international level. The speaker went on to discuss the importance of considering the technical, political, military aspects as a whole and recommended international

agreements on this subject.

The connection was also made between security issues and human rights and privacy. And the point was made that developing privacy laws was actually a contribution to enhancing security. One speaker pointed out that this was especially the case with regard to identity theft, which is greatest in nations that have the weakest privacy protections.

One of the themes that emerged from the discussions was that creating a sustainable environment of trust from all stakeholders was essential in the pursuit of security and to achieve this required everyone's cooperation.

## Taking Stock and the Way Forward

Chaired by Nitin Desai, the United Nations Secretary-General's Special Adviser for Internet Governance and Hadil da Rocha Vianna, Minister, Director for Scientific and Technological Affairs, Brazil's Ministry of Foreign Affairs.

There was a broad agreement that the meeting had been a success; the richness of the debate, the number of workshops, the multi-stakeholder format, the diversity of opinions, the number and range of delegates were all cited as indicators of success.

The development of the agenda since Athens with the inclusion of critical Internet resources was seen as a success and would form part of the agenda for the third meeting. However, it was clear that issues of access needed to remain as a core agenda item. Another possible area for the agenda of the next IGF included a focus on Internet rights. Another area of development could be to allow greater scope for stakeholders to express commitments, and that these commitments would be part of demonstrating the relevance and contributions of the IGF to the Internet community.

In terms of processes, some concern was expressed that the link between the workshops and the main sessions was not as clear or as strong as could have been expected. It was recognized that the workshops offered a wealth of information and opinion, but the ability of these inputs to shape the debate in the main sessions had been limited.

There was clear support for the multi-stakeholder processes and many comments as to how the dialogue of the IGF, freed from the constraints of negotiations and decision-making, allowed for ideas to be freely exchanged and debated. There was a view that participation from users could be increased and that attention needed to be given to ensuring effective remote participation in the meeting. Some commentators spoke of the need for greater diversity in participation and, for example, the need for greater gender balance on the panels. Also young people needed to be better represented.

There was support for the work of the Advisory Group and the work of the Secretariat. Some, however, argued that the processes of the Advisory Group should be formalized and made more transparent.

The session concluded with a formal invitation to the delegates to the third IGF meeting in New Delhi, 8 - 11 December 2008.

## Emerging Issues

This final session of the second IGF meeting was designed to bring into focus issues which could be of importance to the future agenda of the IGF. The session was structured around four broad themes, namely (i) demand and supply side initiatives (ii)

social, cultural and political issues of Web 2.0 (iii) access and, (iv) innovation, and research and development.

One point which came out of the discussion was the differences of perspectives on what were considered to be emerging issues, depending on where one came from, whether from the developed world or from developing countries. The issue of anonymity, for instance, took on a different tone depending on the level of protection of fundamental freedoms. Another example was access. While access was not an emerging issue in developed countries, it remained the most important priority issue in developing countries.

As speakers noted, one of the cross-cutting issues throughout the Rio meeting concerned the borderless nature of the Internet and the fact that there was no global society and national regulations and legislations varied.

The debate on demand and supply side issues highlighted the need to bring into focus the role of users, especially young people, more strongly, as well as public policy initiatives to stimulate and support demand. In terms of public policy exploring the linkages between Internet governance and sustainable development was seen as an important area of debate and new dialogue. Panellists stressed the need for governments not to pursue policies which could inhibit demand for broadband service access, such as restricting the use of VoIP and regulating videos over the Internet, as if it were public broadcasting.

On the supply side, the opportunities created by the release of spectrum through the switch to digital broadcasting were highlighted. Some speakers suggested that such spectrum could be used to support new broadband networks and support new investment and innovative services, while others held the view that this would not be a sustainable solution.

One of the panellists discussed a number of key issues about Web 2.0 and how it raised significant issues for Internet governance. There were many interventions raising several points, such as patterns of user behaviour or the management of privacy or intimacy in social network sites. There was broad agreement that issues of anonymity and authentication were critical, but the appropriate policy was country- and case-specific. It was argued that in some cases anonymity created the potential for negative impacts and could undermine democracy. However, it was also pointed out that in countries where there were restrictions on the freedom of expression, anonymity protected the Internet user and helped promote democracy. There was widespread agreement that Web 2.0 raised many important issues to which the IGF could make a significant contribution.

The importance of access was stressed by many speakers and the limited levels of Internet use in Africa were highlighted. Some speakers highlighted that Internet access in Africa would be based on both IPv4 and IPv6. The question here was that IPv6 was critical to providing for the growth of the Internet but that care needed to be maintained that connectivity with the global Internet was protected.

The Internet had been able to foster and support high levels of innovation. The sources of these innovations have been diverse, covering all levels of the networks and coming from a wide range of institutions, from the largest and most formal research programmes to individuals working almost in isolation.

It was observed that the Internet could be seen as the scaffolding of new research and innovative

activity and as a result key features of the Internet today could be replaced in the foreseeable future; an example suggested here was the use of URLs.

While no formal conclusions were drawn from the session, all the speakers agreed that debate had begun to suggest significant issues for future agendas and issues to which the IGF process could make an important contribution.

## Other Events

Issues addressed in the 84 self-organized events taking place in parallel to the main sessions provided an opportunity for meeting participants to share experiences, ideas and best practices. These thematic events, built around the five main themes, discussed specific ideas, heard presentations on successful projects and exchanged views on next steps to address the use and abuse of the Internet.

While in general the themes being highlighted at these events were fairly diverse, the issues of the protection of children and the fight against child pornography on the Internet was featured more prominently.

Of the 84 other events, there were 36 workshops, 23 best practices forums, 11 dynamic coalitions meetings, 8 open forums, and 6 events covering others issues. Of these, 11 were devoted to the issue of openness and freedom of expression, 12 on development and capacity-building, 9 on access, 10 on critical Internet resources, 6 on diversity, 17 on other issues, and 19 were devoted to the issue of security. Of the security sessions 9 spotlighted the issue of the protection of children and child pornography on the Internet.

## Chairman's Closing Remarks

"The Brazilian people and Government were proud to host the second meeting of the Internet Governance Forum (IGF) in Rio de Janeiro, in the past four days. We were honored to receive over 2,000 registrations, including representatives from Governments, the civil society, the private sector, international organizations, research institutions and Internet users.

The second IGF took place in an atmosphere of friendship and cooperation. In accordance with its mandate, as contained in the Tunis Agenda for Information Society, the second IGF provided a space for multi-stakeholder debate on cross-cutting themes. It facilitated the dialogue between organizations in charge of complementary aspects of Internet governance, identified emerging issues and brought them to the attention of the public. The intense debate and participation in main sessions, workshops, open and best-practice forums, dynamic coalitions and other meetings confirmed the role of the IGF in shaping the governance of the Internet with a view to contribute to the building of a people-centered, development-oriented and inclusive information society.

The second meeting of the IGF also confirmed that the format of this Forum is in the forefront of multilateral policy-making and may set precedents for a renewed, upgraded style of multilateral conferences, in an open, inclusive and representative environment, with the participation of all stakeholders. It is important to build upon the experience achieved so far, with a view of exploring possible avenues for strengthening the existing Internet governance mechanisms, adding to their legitimacy to the international community and adequacy to the guiding principles of the World Summit on Information Society.

The second IGF meeting advanced in the path towards the full implementation of its mandate, in terms of participation, scope, thematic agenda, organization of work and possible results. It contributed to the incremental process that aims at accomplishing the fulfillment of the Forum's mandate by 2010, at the end of the five-year period initially established by the Tunis Agenda. In terms of substance, besides the important themes of access, diversity, openness and security, the Rio meeting contributed to broaden the debate on Internet governance by devoting a main session to the discussion on critical Internet resources and the improvement of the global mechanisms in charge of their management.

In terms of organization of work, another improvement achieved in Rio was the sharing among different stakeholders of the chairmanship of main sessions. One representative from civil society chaired the main session on Openness and another from the private sector chaired the main session on Security. It is also worth noting the interest of Brazilian high Government officials, as shown by the participation of four Brazilian Ministers and a number of other authorities at the IGF events.

## Critical Internet Resources

The main session on critical Internet resources (CIR) considered the conformity of existing arrangements for the management of Internet physical and logical infrastructure vis-a-vis the principles adopted by the World Summit on the Information Society (WSIS). ICANN's multi-stakeholder decision-making process is an interesting experiment in terms of broadening the participation in decision-making processes. There are of course improvements to be made, as for example on the relationship between the Governmental Advisory Committee and the ICANN board. Governments should be allowed, on equal footing, to play their sovereign role in global public policy-making. In this respect, ICANN's on-going reforms, and the perspectives for the recognition of ICANN as an international entity and its independence from any government should be followed with interest.

## Diversity

The Internet offers unprecedented perspectives for the expression of cultural contents from all corners of the world, as well as for the creation, dissemination, recombination and diffusion of content. The conversion of this potential into reality requires that the Internet be managed for the benefit of mankind as a whole. Each individual should have the possibility to take part of the Internet in his own language, in forms that are in harmony with his or her values and cultural identity. The Internet should expand in a way that reflects, in its content and addressing system, the existing cultural and linguistic diversity, along with the regional and local differences which characterize civilization. The particular needs of disabled people should be addressed through the creation and dissemination of specific peripherals at affordable prices, as well as by the adoption of accessibility standards by the industry.

## Access

International connection costs are a burden for developing countries. In this respect, a fair environment for business competition in global scale would contribute to an overall improvement in access conditions. Governments should stimulate the establishment and maintenance of such an environment whenever possible, and take action to correct market imperfections, if necessary. International financing arrangements should be

developed to support investment in areas in which it is not commercially viable. Regional cooperation and Internet Exchange Points are particularly valuable resources to help reduce the demand on intercontinental backbones, thus reducing access costs.

## Openness

Freedom of expression is a fundamental human right that should be ensured and requires the free flow of information and content from diversified sources. More than any other means of communication, the Internet is capable to embrace the cultural diversity and pluralism that characterize democracy. The conversion of this potential into reality requires the preservation of the open architecture features of the Internet.

The new realities, possibilities and challenges brought by the Internet should be considered in the debates on intellectual property, with particular attention to aspects such as privacy and right to information and access to knowledge. Different intellectual property regimes and software licensing models translate into distinct economic perspectives in innovation and insertion in the digital economy, particularly in developing countries.

## Security

Apart from the stability of the Internet, data integrity and content reliability, user protection and the fight against cybercrime should be given utmost priority in the building of a people-centered information society. In this regard, the right to privacy and the due process of law should always be taken into account. Given the borderless nature of the Internet and cybercrime, international cooperation in technical legal fields are fundamental tools in cybercrime countering and prevention. In this sense, the possibilities of legal harmonization on cybersecurity should be evaluated in light of specific national priorities and the distinct realities of the developed and developing world. Governments have a fundamental role in making of cyberspace a secure environment for human interaction, and should count on the help of civil society and the private sector for this purpose. There are certainly lessons to be learned and improvements to be made for the next IGF meetings.

Among those improvements, I would like to stress the need for reviewing the IGF preparation process, in order to allow for a broader, more balanced and more representative participation from all stakeholders, as well as from all regions of the world. It is important to bring in to this process, as much diversity of opinions as possible, taking also into account gender balance. The criteria, nomination, rotation, proceedings and role of the Advisory Group or other structure to be used as a supporting structure to prepare and conduct the meeting could be improved.

I would like to express to you, in the name of the people and the Government of Brazil, and of the Brazilian Internet Steering Committee, our wholeheartedly gratitude for your attendance and active participation at the second IGF in Rio de Janeiro. A special thank goes to Mr. Nitin Desai and to Mr. Markus Kummer and staff, who did not measure efforts to ensure an excellent preparation of this meeting. I would also like to thank the presence of Mr. Sha Zukang, Undersecretary-General for Economic and Social Affairs of the United Nations, for his attendance and personal contribution to the IGF. Last but not least, I would like to stress our recognition of the financial and logistical support that the Brazilian Internet Steering Committee has provided, which was crucial to the success of this event."

## Excerpts from transcripts of the 2<sup>nd</sup> Internet Governance Forum Rio de Janeiro, Brazil, November 12 – 15, 2007

### 1. Opening Ceremony

#### Statements:

- **Ban Kin Moon**, Secretary General of the United Nations
- **Sha Zukang**, Under Secretary-General for Economic and Social Affairs of the UN
- **Sérgio Rezende**, Minister of Science and Technology, Brazil
- **Roberto Mangabeira Unger**, Extraordinary Minister for Strategic Affairs, Brazil

#### BAN KIN MOON:

“Allow me to convey warm greetings to all those gathered for this important Forum, and to thank the Government and people of Brazil for their generous hospitality. The venue of Rio is particularly auspicious, as it was the home of the 1992 Conference on the Environment and Development. Today, in another landmark event, it is the issue of Internet Governance that brings people from all over to Rio. The Internet has become the backbone of our globalized world. For the United Nations, it has become a powerful tool in our mission to promote peace and security, development and human rights, particularly in the flows of information and knowledge that it enables. The United Nations does not have a role in managing the Internet. But we do embrace the opportunity to provide, through this Forum, a platform that helps to ensure the Internet’s global reach. With an estimated one billion Internet users today, some five billion people still do not have access to this empowering tool. The Internet Governance Forum is not a traditional UN meeting. It is a new model of international cooperation and, just like the Internet, it is in constant evolution. Its purpose is to bring people together from all stakeholder groups. You meet here as equals, not to make decisions or negotiate, but to discuss, exchange information and share good practices. The Forum can develop a common understanding of how we can maximize the opportunities the Internet offers, how we can use it for the benefit of all nations and peoples, and how we can address risks and challenges. One particular area of hope, but also concern, is the relationship of children and young people with the Internet. The Internet has opened new doors to them, to knowledge and culture. Yet, it can also present a threat to their safety. The programme for this year’s meeting has a strong focus on the protection of children, and I hope that it will contribute to making them safer. This Forum is modest in its means but not in its aspirations. It may have no power to make decisions, but it can inform and inspire those who are in a position to make them. May your deliberations contribute to the further evolution of the Internet as an effective tool for building a more secure and just world”.

#### SHA ZU KANG:

This second meeting of the Internet Governance Forum underlines the important role being played by the UN in shaping dialogue in key policy areas of the world today. The growing interest in Internet governance is reflected by the large audience here today. It

also highlights the role of the UN as a convener which can bring together the key stakeholders. Throughout the debate on Internet governance, development has been one of the key priorities and cross-cutting themes. The Internet is capable of delivering economic opportunities for all. But much remains to be done. And I hope your debate here is rewarding and insightful. The new economic opportunities that the Internet offers have also a clear link to the social world, particularly in terms of freedom of expression and free flows of information and ideas. The social production of content, the widespread input from individuals into the media, and the instantaneous distribution of such content are reshaping the way we see and understand events around the world. These new insights bring greater understanding between the peoples of the world, thanks to the Internet. The Internet Governance Forum is a unique opportunity for all stakeholders to develop an innovative dialogue under the auspices of the UN, a dialogue freed from the constraints of negotiating a text. The Forum is also unique in that it brings together people who normally do not meet under the same roof. This includes some of us who are not physically here, but who will engage instead through remote participation. Looking at the conference programme, the main sessions and the wide variety of workshops and other events, it is clear that this notion of multi-stakeholder involvement and partnership is being embraced by the Forum participants and turned into a reality. The core themes – critical Internet resources, access, diversity, openness, security – will help to structure a rich debate, which should redound to the benefit of all, especially to young people and children. I wish you well this week and look forward to participating in many of the Forum events. On the agenda item of taking stock and the way forward, I hope you will be able to reflect upon the issue of selection and appointment of the Advisory Group and the possible ways and means of financing for Internet Governance Forum. In accordance with the custom of the Forum, the host country chairs the Forum session. Therefore, now it is my honour and pleasure to invite Minister Sérgio Rezende to assume his responsibility. And I wish him a very successful session.

**SÉRGIO REZENDE:**

It's my pleasure to welcome you all to Brazil, especially to Rio de Janeiro, for this very important forum for the Internet. The Internet, which you all know very well, is the most revolutionary invention of mankind, of our recent times. And this is the instrument which made possible this phase of globalization. Globalization has taken place in the planet in different phases, but this one is a definite one. And, of course, the Internet is the means that provided this to happen. So for Brazil and for Rio de Janeiro, is an honor to hold this forum, the forum of the IGF. And I would like to thank the United Nations for choosing Brazil and Rio de Janeiro to hold this second forum of the IGF. You are going to have a very busy week discussing many themes which are important for the evolution, for the improvement of the Internet, as the Under Secretary-General has mentioned. Many themes, some of them are challenges to all of us to decide and to recommend what to do so that this great invention of our times continues to improve and continues to be used wisely and widely, more widely, so that we have a better distribution of wealth over this planet, so that more people have the opportunity to become citizens of the world. And many of the people who have contributed to the Internet so far are here, and they have good ideas. And they will, I am sure, contribute, so that the Internet continues to evolve. All I would like to do now is to wish you a very good week and work in the remainder of the week. And I'm sure that the results of this forum will be very important and helpful to all of us.

**ROBERTO MANGABEIRA UNGER:**

The Internet is a tool which is partial but very powerful. The tool in many aspects, is a

mean to overthrow all dictatorships to free from the power of money and cultural authority. For this revolutionary potential to be fully used, an institutional design needs to be developed for Internet governance according to two principles. First principle is that of anti-hegemony. The Internet governance must not reflect the overpowering preponderance of any specific national state. ICANN had an essential historic value in the development of the Internet. However, we are past the time for it to pass on its power to a more including organization, without confrontation and without any problem. The second principle is the principle of limitation on the influence of the state and the influence of money. The mere transfer of ICANN's power to universal association of states would not be accepted by those who control the Internet today, and should not be accepted by mankind. The governance alternative must also give power to the world civil society. And for that, we need an institutional design which may replace in the property system the logics of -- the power of the owner with the logic of the agreement between users. And that should add traces of representative democracy and of participative democracy and should apply the result of this combination to sectors where these principles were never applied before. You will say that the premise for this initiative is still lacking. The world of civilian society is still not organized. But it is beginning to organize itself, and the development of the Internet does not have the organization of the world civil society as a precondition. On the contrary, it is a provocation for it to organize itself. So you here who are involved with the Internet, those of you who study and discuss the Internet, you are the avant-garde of this world movement. And it is based on the associations represented here that this participative movement to change governments has to start. It has to start with you. So the realists will ridicule this initiative. But they are the ones to sink in an anti-pragmatic pragmatism, forgetting that mundane people do not change the world. Ladies and gentlemen, we need courage, courage to attain what is necessary via what is improbable; courage to turn the Internet into a practical, universal tool to work for freeing imagination.

## 2. Opening Session

### Speakers:

- **Hamadoun Touré**, Secretary-General, International Telecommunication Union (ITU)
- **Anriette Estherhuysen**, Executive Director, Association for Progressive Communications (APC)
- **Guy Sebban**, Secretary General, International Chamber of Commerce (ICC)
- **Lynn St. Amour**, President and CEO, Internet Society
- **José Mariano Gago**, Minister of Science, Technology and Higher Education, Portugal
- **Paul Twomey**, President and CEO, Internet Corporation for Assigned Names and Numbers (ICANN)
- **Naoyuki Akikusa**, Chairman, Fujitsu Limited; Chairman, Global Information Infrastructure Commission (GIIC)
- **Ivy Matsepe-Casaburri**, Minister of Communications, South Africa
- **Adama Samassékou**, Executive Secretary, African Academy of Languages

- **Luigi Vimercati**, Under Secretary of Communications, Italy
- **Kiyoshi Mori**, Vice-Minister for Policy Coordination, MIC, Japan
- **John Klensin**, Consultant
- **Maud de Boer-Bucquicchio**, Deputy Secretary-General of the Council of Europe
- **Catherine Trautman**, Member of European Parliament
- **Jainder Singh**, Permanent Secretary, Department of Information Technology, India
- **Gilberto Gil Minister of Culture**, Brazil

**SÉRGIO REZENDE:**

The Brazilian government authorities are honored to host the second Internet Governance Forum, the IGF. It's an honor and a pleasure to welcome you to this beautiful and hospitable city of Rio de Janeiro and to host people from all over the world here to discuss and exchange experience on the issues relating to this great recent conquest of mankind, the Internet. As you all know, ladies and gentlemen, this forum, organized by the United Nations, is a legacy of the two phases of the World Summit on the Information Society, held in two parts, in Geneva and in Tunis, where Brazil was an active participant. This world summit was convened by the United Nations general assembly, with the essential purpose of setting guidelines for information and community technologies to be able to make a decisive contribution to achieving the millenium development goals. The millennium development goals seek to meet the basic needs of promoting the development, freedom, and human dignity and to eradicate human poverty. The IGF has a mission to discuss and find ways to ensure that Internet can be a tool for meeting the principles and commitments of the Tunis Agenda, to build an Information Society which is inclusive, human centered, and geared to development. Access to effective use of Internet and information technologies is an essential factor for societies to achieve competitiveness and to develop their nations. These instruments provide a new paradigm for social organization, which has been called the Information Society. And contribute significantly to social, economic, and cultural development for all peoples. Internet has tremendous potential for promoting a global partnership for development as advocated in the Millenium Development Goals. However, if this global communications environment is to be effective, Internet requires the participation of all peoples. The basic characteristics of the Internet, the essence, if you like, is cooperation, access for all to an agreed common communication protocol, interconnection between regional networks, to create a network of networks, and to share the information in these networks. Without the spirit of sharing, of connectivity, of mutual support, Internet will lose its strength as a way of promoting global development. We will lose an opportunity to communicate between nations, we will lose the support for information and communication services and technologies. Lastly, without the participation and cooperation of all, the Internet cannot be sure nor stable. That's why we defend Internet governance that is representative and balanced. Balanced in terms of countries and regions, but also balanced in terms of the different sectors of society. We stand for a type of governance which is not the preserve of any particular country's government. Equal treatment for all nations is a pre-condition to building global confidence in the functioning of the Internet, and thus promoting the sustainability of Internet. Despite its localized origin, starting with the development of ARPANET for the scientific community in the United States, initially, subsequently a global network,

Internet is the result of many, many revolutionary contributions made by various individuals and bodies from different countries. Some of them are here. With the advent of effective navigators and the World Wide Web, Internet has spread to all sectors of societies, to all countries. It has become a tool used by all of us to exchange messages, to gain access to information through the use of effective, efficient research engines. It is also a tool for remote education, for e-trade, for e-government. And lastly, it is a way in which people, entities, businesses and governments communicate with each other, cooperate and carry out financial and commercial transactions. The Internet is essential for the growth of the individual and for the growth of nations. It requires a participation, cooperation of all. It is a universal good of public interest. As such, governance needs to focus on this public goods aspect and needs to be focused on the development of the human individual, and must be focused on building a more just society on our planet. Education is today largely recognized as fundamental to development for people and nations. We need to recognize that Internet is an effective tool for communication and the information technologies also promoting universalization. The digital divide that exists today needs to be eliminated because it is a factor which increases disparities in levels of development among countries with the tragic consequences we are all aware of. Digital inclusion is an essential objective to build a more just and more harmonious world. The developed countries whose people, for the most part, do have computers, have access to the Internet, the developed countries must contribute to digital inclusion programs for the poor countries. And the developing countries must intensify their efforts to expand the use of computers and to allow people to have access to Internet. In Brazil, the government of President Lula has made great progress to that end. The Computers for All program has resulted to a significant drop in the cost of personal computers which has allowed less well-off families to acquire computers and has considerably expanded the market for computers. This year, about 10 million PCs will be made in Brazil. We also have digital inclusion programs. These programs seek, by 2010, the end of the current government's term, to ensure that 140,000 government schools have access to Internet, most of them through a broadband connection. This forum in Rio de Janeiro is one of the four fundamental subjects which will be discussed here on access, diversity, openness and security. This IGF will also discuss the vital subject of the use of Internet resources and the administration of those critical resources. We also believe we need to discuss here how critical resources of the Internet, including administration of domain names and numbers, can be managed in a coherent way in keeping with the principles of Tunis. The governance of Internet must be structured in order to meet these needs without in any way jeopardizing the efficiency of the Internet with a view to finding quick solutions to urgent issues which is required in order to keep up the dynamism which is the characteristic of the development of the Internet. In addition to these core resources, then, there will also be discussion of other issues here for the first time, emerging issues such as incentives and competition and content production. Let us ensure access to knowledge as one of the objectives to be achieved. In this sense, the Tunis Agenda seeks more recognition of the role that can be played by open systems and alternative licensing schemes to promote digital inclusion and the construction of a virtual environment, a collaborative environment that promotes development. On the preservation and promotion of cultural diversity, this is of fundamental importance for universal acceptance of Internet. We attach great importance to the development of a charter of Internet rights. The development agenda adopted by the United Nations, by the World Intellectual Property Organization October this year, is an innovative way of reorienting the discussions on intellectual property. Security, without any doubt, is a concern and also a challenge for all of us. This is a subject which needs to be discussed in detail. We need to respect the fundamental rights of the individual, including freedom of expression, while avoiding

excessive controls which would restrict such rights and which would limit the flow of information. We must support mechanisms to combat cyber crime, particularly to protect children against sexual abuse and exploitation. Respect for fundamental rights in the Internet must not be assured without access to knowledge. In this respect, the Tunis Agenda empowered and recognized the role to be developed by open standards and by free software, especially in the construction of a virtual environment, which is collaborative and favorable to development, as well as promoting digital inclusion. Ladies and gentlemen, Brazil remains committed to the Tunis Agenda and with the implementation of commitments taken on at WSIS. The committee of the Internet in Brazil is a successful national experience in the management of the national names domain, the managing committee is made up by representatives of the government of civil society and of the private sector as well as the academic community. This is a participative model of Internet governance at national level, fully in agreement with the principles of multilateralism, transparency and democracy. The IGF here in Brazil, we have less formality, and the presence of nongovernmental actors, and the open possibility for everyone to participate as individuals or users of the Internet turn this forum into a very special instance. Finally, I couldn't but once again emphasize the need for a wide program for training society, especially in less developed countries, training them in the useful use of the Internet and of information technology. The exclusion of a considerable part of mankind from the society of information would represent a tragedy that would jeopardize the political and economic stability of the world. To conclude on behalf of the Brazilian government, I wish you all an excellent stay in Brazil. Good luck, and success in this collective undertaking for all of us. Thank you very much, and have a very good day

HAMADOUN TOURÉ:

As Secretary-General of the ITU I have been in the office just for one year, and my main focus has been on ICT development. And as you all know, it is very close to my heart. The WSIS process has been a very open and transparent one, and I'm very pleased that the very important first step that was decided in the ITU plenipotentiary conference in 1998. At the time the main reason for organizing WSIS was that we were close to the deadline of not bridging the digital divide. We called it the years the missing link. And I would just like to remind you that the monster is not only bigger but it's faster. Therefore, we need to put real action into all the talks that we are making here. And I hope that the Rio forum will be a very good continuation of the Athens forum and will also come to really concrete results. The ITU has been cooperating with all stakeholders since the Tunis Summit, and we are very pleased with the progress made so far in many areas. ITU is mainly busy in three main areas: Standardization, development issues, capacity building in development. Capacity building will be one of the most important thing for our countries and we need to work together to build an inclusive Information Society where there will be equal opportunity for all. One of the key roles in the standards development is our work on DSL and cable. Broadband standards have made end users' broadband a reality for hundreds of millions of users over the last few years. ITU-T developed X509 as the definitive reference recommendation for electronic authentication over public networks and public key infrastructure (PKI). ITU is now carrying out vital work establishing standards on new generation networks (NGN) based on Internet protocol technologies that will eventually replace the current PSTN. ITU is also conducting a number of related work programs with global scope in areas such as IPTV, cybersecurity, multi-major coding, using ITU voice and video standards. Through the development sector, ITU is assisting developing countries in using information and communication technologies as an engine for accelerated development, social and economic development, national prosperity, and global competitiveness. The Connect

the World initiative is based on building multistakeholder process to achieve bold targets in ICT connectivity. In Kigali just two weeks ago where we launched the first Connect the World series in connecting Africa. Finally, ITU plays an important role in capacity building in ICTs and in providing a forum for discussion of urgent policy issues by means of events such as the global symposium for regulators, and world telecommunication policy forums with systematic meetings and workshops on Internet governance, cybersecurity, and Spam, among others. Let me also mention that the innovation that has characterized the development of the Internet over the past 30 years will lead to a change in the landscape, shift the roles of key players and introduce of a new type of competition. Experience shows that the more we resist change, the higher the pressure for change. Having witnessed the changes in the ITU landscape, I'm certainly in a very good position to say this. In summary, what is needed is next-generation Internet governance, the development of an enabling environment that assists governments to foster supportive, transparent, pro-competitive policy, as well as a legal and regulatory framework to provide appropriate incentives for investment and community development in the information society. What is needed is the development of an overarching and enduring architecture based on policy, legal and regulatory initiatives with intergovernmental collaboration, and capacity-building efforts may be made toward finding common international technical and policy approaches to promote an enabling environment globally, offering the maximum benefits to society. In conclusion, I would like to remind you all of the spirit of the WSIS that is of inconclusion, cooperation, and tolerance. Let the beautiful skies of Rio be the uniting force for this meeting.

ANRIETTE ESTERHUYSEN:

The Internet has enormous potential for contributing to all aspects of human development. And we in my organization believe it's a public good, and therefore it should be governed as a public good based on public interest principles. And also, this governance should take place in the public domain. We need all institutions and all processes that are involved in governance of the Internet to be transparent, to facilitate participation, and participation from all stakeholders, and participation in decision-making, to provide access to information. And this is a very broad. This does not apply just to ICANN; this applies to all aspects of Internet policy and government. On the themes of the forum, we think there are some key issues. In the security theme unless you link human rights and the right to privacy and other freedoms to security, you can create a less-secure environment rather than a more-secure environment. In the theme of openness, we think there are two primary issues to be addressed. On the one hand freedom of expression and the removal of barriers to people being able to use the Internet in any way they want to. On the other hand it is standards. Increasingly, there are standards being made outside of public spaces that have social implications that limit what people can do with the Internet. This touches on issues of intellectual property, interoperability between different applications and devices. And these are things that impact on the cost. Why should blind people pay more for interfaces to read text because they're blind and because someone owns a royalty on making two applications talk to one another? This is wrong. On the issue of access, we heard already, five billion people in the world do not have access. We hear proclamations about wireless solutions, about private sector investment and initiatives driven by governments, by intergovernmental organizations. And, yet, there are still five billion people in the world without access. And then on diversity, if you put openness and access together, you will have diversity. If you remove the barriers that are created by rigid, proprietary intellectual property regimes, you will have more creation, more innovation. So let's focus on diversity as an issue. And there is linguistic diversity, cultural diversity. Finally, about ICANN. I think that we would like to commend the IGF

for putting critical Internet resources on the agenda. It's an important issue. But there's also a lot more to talk about other than ICANN. So while not avoiding talking about controversial issues, let's not let them dominate the space for the next few days, because there are many other critical issues.

GUY SEBBAN:

I am very proud to speak on behalf of the business community just after the distinguished representative of ITU, an intergovernmental organization, and after the representation by Anriette on behalf of civil society. It's important to keep in mind these three main actors, which are called stakeholders. This multistakeholder stakeholder approach, on an equal footing, is certainly something that we appreciate very much in the previous session of the IGF in Athens. In Athens, we have set the goals and objectives. It was to exchange between specialists, between representatives of civil society, between business people, between representatives of governments on different issues which are directly linked with Internet governance. In this sense, the Athens meeting was a great success. But we have to go further here in Rio. Maybe two words about Brazil. Brazil is one of the four "BRIC" countries, as we call them usually. And it's incredible to see the development of this country, and especially in the field of information and communication technology. The reason why this development has occurred is probably because Brazil has applied some basic rules which are very well known to foster the development of new technologies and to foster entrepreneurship. This big country is a democracy, respecting the rule of law, respecting intellectual property rights, and has put in place the right infrastructure to help the development of information and communication technologies. We see in this country great possibility for Internet connection, and in some cases, you can get that even for free. That's for the aspects linked with governments. But I have said that we have also to take into account the role and responsibility of the business community. Usually business is associated with technology. And business has invested a lot in research and development, and also in physical investments, in order to help different people to enjoy the benefits of Internet and all the information and communication technologies. Quantum leaps in computing memory through rapid advances in cheap technology, powerful machines in units so small that they are undetectable by the human eye, nano technologies, face recognition software for better security in the airports, smart engines, social networking, thanks to Web 2.0, long-distance medical monitoring and long-distance learning, and the list goes on. I could spend a lot of time explaining all the new developments that are due to technology in which the business community has invested a lot in terms of people and money. But to be successful, it's not enough to have on one side as governments and the intergovernmental organizations playing the role and on the other side the businesses trying also to reach some objectives. I think the key word in this arena is certainly "cooperation." And this cooperation between these actors -- governments, business, civil society -- is absolutely essential. And the business community not only investing and making research, has also spent a lot of efforts in order to convince the governments to put in place the right legislative framework. For us, this is absolutely key to create what is called this enabling environment, which means that the governments are really putting in place the right condition for attracting business in the different countries. But all these efforts finally are done for what reason? I think it's mainly also to satisfy the needs of individuals. And it's a pity to see that only a small proportion of the people living on this earth have access to these technologies so far. So I think all these efforts should be made for permitting access to the many billions of people who don't enjoy this possibility.

LYNN ST. AMOUR:

The message I would like to focus on is best captured by the possibly somewhat overexposed phrase "think globally and act locally." ISOC is an independent, international nonprofit organization with more than 26,000 members in 180 countries and over 180 chapters spread around the world. We are proud to have been established by two of the fathers of the Internet, Bob Kahn and Vint Cerf. And, in fact, Vint was the first executive director of the Internet Society. ISOC has promoted the open development and growth of the Internet since 1992. We are the organizational home for the Internet Engineering Task Force, IETF. We work globally and locally and for over 15 years, our activities, particularly in developing countries, have helped expand the reach of the Internet and worked to strengthen the local environment and increase local capacities of all kinds. A healthy and robust Internet requires local conditions that support an environment characterized by choice, connectivity, and active communities, an environment in which skills development, capacity-building, and local content development are real priorities, an environment in which businesses are attracted by enabling public policy environments and predictable investment climates. These characteristics are not particular to the Internet or to the Internet's deployment. They are fundamental to a nation's economic and social development. For the Internet to be a powerful instrument that increases productivity, generates economic growth, job creation, and employability and improve the quality of life for all, it needs conditions in which it can flourish. This is no trivial matter. Yet these conditions are essential to bringing the next billion people online. And the billion after that, the billion after that, the billion after that, the billion after that. By the time we get those billion people online, there will be several more billion that need to come online. The IGF presents all stakeholders with a unique opportunity to catalyze local change. The IGF is not only a forum for dialogue, but it is a medium that should encourage fundamental change at the local level to empower communities, build capacity and skills, enable the Internet's expansion, thereby contributing to economic and social development. The results of the IGF must be to contribute to and support the deployment of the Internet, and fundamentally, this must be done at the local level. So let us leverage the IGF to bring forth the tools, skills, and knowledge to empower all stakeholders, including governments, to effect this change. To succeed, we must preserve and promote the spirit and intent of the IGF. We must preserve and promote its multistakeholderism, its dynamic, open, and collaborative nature, and its encouragement of open and frank exchanges of views, free from the pressure of negotiations. Supporting and contributing to the evolution of the Internet as an open, decentralized platform for innovation, creativity, and economic opportunity is the best way for the Internet to help improve the lives of people everywhere. We have seen that throughout its history, the Internet has always been defined by the energy and ideas of those who use it. As new communities come online, we are excited by the creativity and innovation they bring, and we are constantly reminded of the duty we all share in supporting their emergence. ISOC encourages all stakeholders to reinvigorate their commitment to assisting new communities to come online and identifying local solutions to the challenges that we all face in ensuring the Internet is for everyone, as we still have a very, very long way to go.

JOSÉ MARIANO GAGO:

As Acting President of the Council of Ministers of the European Union, responsible for policies on the Information society and representative of the Portuguese government, I would like to warmly greet the Brazilian government and organizers of this forum in Portuguese. The Brazilian initiative to organize tomorrow a seminar on free access to knowledge in Portuguese-speaking countries deserves our full support, because we are certain that this will stimulate similar actions in other language or regional spaces. The EU shares from the very first moment the major objectives and the preparation of this

IGF, as well as the meetings that preceded it. The EU was always in favor of the open, diverse, multivaried nature of the forum, which is geographically balanced and made up of organizations of different natures whose wealth is precisely in its innovative nature as to the site of debate and concentration of the forum. It's not just yet another political, multilateral instance, but it is an open and innovative forum. And this seems to us to be the best way for us to work together to defend the very social innovation the Internet has brought about. The EU has soon understood that we weren't dealing here with just infrastructures, but these were social networks and movements. The notion of policies for the Information Society in every country as well as at the union school has proved this understanding. Also, the definition of common objectives for the whole EU is a consequence of this policy. The reference framework adopted, which we call I-2010, enshrines our present goals for the creation of a European space for information, for research and the development in ITC technologies, and for the encouragement to advanced content and services. Lines of action such as the generalization of the wide band security and neutrality, modernization of public services as in the e-government and the public bed in the generalized use of the Internet and information technologies for economic competitiveness as well as in health, education, trade, supply, and production of multicultural and multilingual contents for the capacity building and the very breathing of democratic societies. And in the support to social and cultural inclusion and in the support of people with deficiencies or special needs, and more recently, initiatives for the development and views of the RFID make true in the EU the political objectives that are the object of mutual assessment, of benchmarking, discussion, exchange of experience between countries and regions. It is this experience that the EU wishes to share with the rest of the world. The investment of the EU in the creation and operation of networks for science and education, not just within its own territory, but also in connection, as happens, with Latin America, with Africa, all the Mediterranean basin, are concrete examples of the wish for cooperation and support to development at global scale. The EU wishes its efforts favoring development and knowledge at global scale to find increasing response and partnerships in other spaces, organizations, and countries. It is not by chance that the World Wide Web model was developed in one of the most important international research laboratories, the CERN, as an open tool of free use. The new forms of development and open organization for the governance of the Internet, like ICANN, have shown so far an unprecedented response capacity. The present model is flexible and dynamic. It can be and has been improved, and should continue. Governments should guarantee independence of organizations that participate, especially the ICANN, and guarantee a balance and international openness. It would be going backwards, and this would be unacceptable in our opinion to go back to old forms of multilateralism applied to the Internet. In the last decades, the Internet revolutionizes and expands our expectations for freedom and democratic participation of access to information and knowledge, of plurality of languages and cultures, and the variety and wealth in the action of millions of social actors at planet scale. The Internet has fulfilled a hundred, a thousand times its initial promise, and has opened up new challenges, against free access to the Internet, against the formation of social networks for global information, and against the freedom of expression and access to knowledge, stand all fanaticisms and all enemies of democracy in vain. WSIS stated what we defend heartily, not just for us in Europe but throughout the world. The Geneva declaration says, that in the Information Society as outlined in the universal declaration of human rights, everyone has the right to freedom of opinion and expression. That this right includes freedom to hold opinions without interference, and to seek, receive, and impart information and ideas through any media and regardless of frontiers. Communication is a fundamental social process. A basic human need. And the foundation of all social organization. It is central to the Information Society. Everyone,

everywhere, should have the opportunity to participate and no one should be excluded from the benefits the information society offers.

PAUL TWOMEY:

The IGF brings together a diverse group of individuals in the aim of sharing knowledge and experience over and about this one global interoperable Internet. We should all be proud of our achievements so far. With over one billion individuals online, Trillions of dollars of business being conducted over a network which comprises hundreds of millions of computers and devices all communicating with one another across the globe, it has given the individual in our societies an ability to communicate and interact with others unprecedented in human history. It has reformed industries, and caused us to rethink how we view ourselves and our planet. But with this extraordinary change also comes challenges. The agenda of this meeting captures them. Most important is access. Our discussions here will mean nothing to someone not able to get onto the network in the first place. And the challenge now is to ensure that we bring the next billion people online. Diversity, openness, security, access, critical internet resources, all these topics will be discussed over the course of these next few days, and I hope at the end of it we end up one step further down the line in solving some of the issues they represent. ICANN, like other Internet organizations, is committed to the multistakeholder and open way of doing business where anyone, anyone, from governments, the technical community, business and civil society can participate freely, either in person or virtually. We are pleased that the IGF is also following this model. ICANN has a participative community of up to 20,000 people around the world involved within its very narrow mandate of technical coordination for the DNS and IP addressing. I would like to issue a personal invitation to all people here to join that community, to participate as you wish and desire, and to help with their work and its evolution. Before finishing, I would also like to thank ITU secretary-general Hamadoun Touré, and the UNESCO leadership for their support and assistance in helping to produce a joint workshop with ICANN this week that will review how international cooperation can be used to establish standards for a multilingual, global, and interoperable Internet, the inevitable next step for this extraordinary medium.

NAOYUKI AKIKUSA, Chair of the Global Information Infrastructure Cpmmission:

The GIIC's mission is to provide private sector leadership to foster investment in the ICT and Internet capability. Today I want to talk about two topics. One is environment and Internet. Second one is corporate management and the Internet. Speaking of the environment and ICT, sustainable economic development is empowered by the Internet. The Internet is becoming a more important factor. However, we have not sufficiently discussed environmental impact of the use of such technology. The Internet and ICT can reduce the burden of the environment. Digitalization of mechanical components greatly improve their efficiencies. Automotive controls and medical equipment like CT, and also teleconference reduces physical movement of persons and goods. Energy management system improves power efficiency in businesses and homes in the public sector. However, the energy consumption in the world ICT use is not so small. We need to think about more efficient use of our resources. The ICT uses account for 2% of CO2 consumption worldwide. Some studies show that data centers consume 23% of that amount. Air conditioning and cooling consumes half of the power in the datacenter. I would like to show some example. Replacing ten racks of servers by one blade server can annually reduce CO2 emissions by the equivalent amount of planting 200 trees. The ISP in our company, Fujitsu Group, is now using 25% of its mail servers to combat Spam. And 90% of e-mail coming to Fujitsu are Spam. I think probably the communication carrier use a huge amount of energy and cost for Spam. We are facing

many environmental matters to be solved and to discuss in the future. For the healthy development of the global Internet, I think we should pay more attention to assessing this wasted energy and cost. Secondly, I would like to touch upon the corporate management and the Internet. The Internet is a crucial part of the business infrastructure because it circulates everywhere like the air. Companies like Fujitsu heavily depend on the Internet application systems, from R&D, office work, training and education. If Internet doesn't work, it means we cannot continue our business operation. However, many in top management site does not notice this, and think of the Internet as a given infrastructure to utilize. Only a few recognize Internet safety as a critical management issue. To keep secure and stable Internet operation is essential part of corporate management. And a company executive should recognize the Internet as one of the most important management issues and coincidentally add something like a subset of worldwide Internet governance. Finally, the private sector represented only 13% of all at the IGF in Athens. The important thing for the private sector should be to participate more in the IGF and contribute to its processes.

IVY MATSEPE-CASABURRI:

It is now two years since we decided at the second phase of WSISociety to establish this multistakeholder forum IGF. Few in the world could have predicted that the Internet would grow in the global phenomena it is today. We must thank the dedicated individuals who have committed so much to its growth and to its management. The benefits of increased efficiency and the services that can be delivered through Internet technology have been closely followed by policy challenges, and many of us face those challenges. One of the most urgent of challenges facing humankind is the eradication of poverty and of underdevelopment. This will remain a critical challenge for some years yet. I therefore appeal to this forum to continue to focus on the collective view that was expressed by the declaration of principles in Tunis or in Geneva to build a people-centered, inclusive, and development-oriented Information Society, enabling the individuals, communities, and peoples to achieve their full potential in promoting sustainable development and improving their quality of life. But as we heard today, you can't use it unless you have access to it. In my country we have a favorite phrase: If you don't use it, you lose it. But we have neither that which we can lose. And it's important to bring that and make sure that we can actually also use it. In east and southern Africa there has already been collaborative effort under the network program of the African Union (AU), to build cables, undersea cables, to improve access and to reduce the cost of Internet connectivity as part of what the secretary-general of the ITU spoke about this morning, the connect Africa concept. Another one of the key challenges we face as a people but also as a whole world, and Africa in particular, are the challenges that we must ensure the participation of representative stakeholders on a consistent basis, especially from developing countries and their unconnected people. We therefore need to consider how we can use this tool, the Internet, to address exclusion and underdevelopment. We therefore can ask ourselves what can the IGF do for the billions who do not yet have access, billions who can benefit from the improved way of doing things from accessing government services to e-health, e-education services, etc., and a whole range of other services which are offered through the Internet. We need practical solutions to support development. As we have endorsed at the WSIS, such things as local content, capacity building, the right of countries to manage their own Internet resources whilst maintaining global coordination are all subject matters of this conference and we hope that as we end the conference we will have moved forward in attending to some of these things. We must make a collective commitment to the next generation Internet and its technologies, but we must make sure that the stability and security of the Internet is a global facility and ensuring its requisite legitimacy and

governance based on full participation of all stakeholders is maintained. I, therefore, would like to report and echo the call of my own president when he was in Tunis by appealing to everyone that we should ourselves take action to translate the shared vision of an inclusive, development-oriented Information Society into practical reality.

ADAMA SAMASSEKOU:

Allow me to recall some of the achievements of the WSIS process. First of all, what I recall the spirit of the summit, which is typified by the multistakeholder approach which led to an innovative mechanism with the establishment and institutionalization of the civil society office and the representation of the private sector which has led to the development of a dynamic inclusive partnership bringing together all of the stakeholders, governments, civil society, the private sector, and intergovernmental organizations. Secondly, two major African initiatives, the digital solidarity fund in Geneva and MAAYA, the world network for linguistic diversity in Tunis. Thirdly the development of a follow-up mechanism for the implementation of the guidelines, that emerged from the Geneva phase and include, inter alia ITU, UNESCO, and UNDP. Fourth, the creation of the IGF which is the only formal arrangement that emerged from the WSIS, bringing together all of our great international family. Is it not necessary that in order to keep up this beautiful enthusiasm and to promote within the forum a mechanism for making recommendations for specific action addressing issues of the IGF mandate? There are 12 points which define the mandate of the IGF. I'd like in particular to highlight inter alia, advise all stakeholders in proposing ways and means to accelerate the availability and affordability of Internet in the developing world; identify emerging issues, bring them to the attention of relevant bodies and the general public, and, where appropriate, make recommendations, contribute to capacity-building for Internet governance in developing countries, drawing fully on local sources of knowledge and expertise, help to find solutions to the issues arising from the use and misuse of the Internet of particular concern to everyday users. For that point the discussion on the democratization of the Internet should also include the need for each citizen of our planet to have access to this tool in their language. And also the urgent need to work together in order to tackle the serious abuses of Internet use. We can do this through a major program of training and awareness promotion, in particular, through libraries and other appropriate common spaces, making them at the core of the new society we are building, and, in particular, for up and coming generations. In this context we must take the fortunate opportunity of next year being the international year for languages, to lay greater stress on the points I have just made at the third session of the IGF in India. As executive secretary of the African academy of languages and as president of the global network for linguistic diversity, I should like to assure you of our willingness to work with the bodies of the forum to that end. It is already a great pleasure for me to invite you to consult the UNESCO Web site, which is the lead organization for next year, the international year of languages, I would like to draw attention to the excellent statement by the director general, Mr. Matsuura, saying, languages are important.

LUIGI VIMERCATI:

The Athens conference last year opened the way for a global and multistakeholder discussion on the development of the most powerful instrument that humanity has ever had, able to generate and circulate knowledge and to shift power. From then on, Italy has clearly expressed the opinion that a set of principles is necessary to allow a democratic and inclusive development of the Internet, agreed and shared on a global scale. In this view, the Italian government, together with the United Nations, has organized last September in Rome a dialogue forum on Internet rights that saw the

participation of more than 700 delegates from governments, civil society, the private sector, academia, coming from 70 different countries. The forum confirmed the necessity to define at an international and multistakeholder level common rules for Internet governance, which, in our opinion, should take on the form of an "Internet Bill of Rights." It is quite evident that the Internet is introducing nowadays radical changes in every dimension of human behavior, from economy to communication, to social and political relationships. Its hasty growth affects directly human rights and shows shortcomings of the measures adopted so far to protect them, but at the same time, it reveals an extraordinary potential as a new bottom-up form of expression, able to strengthen democracy in the knowledge-based society. Today we are witnessing the birth of a new generation of rights pertaining to global digital citizenship, which represents an extension, with its specific peculiarities, of fundamental human rights. Consequently, a bill of rights is needed, a jointly agreed definition of these rights, consistent rules to ensure freedom and access to Internet, together with forms of self-regulation, all of these to guarantee the rights of single individuals and social groups, particularly the most vulnerable ones. Absence of rules doesn't necessarily mean a freer Internet. We must not forget that freedom of expression and the free flow of information and ideas has to go alongside with the safety and the integrity of the Internet to make it achieve its full potential and to avoid the supremacy of the strong over the weak. We must ensure that everyone in the world can benefit from these opportunities offered by the Internet by removing all the barriers that hinder full access to the Net and trying to bridge the digital divide. For all of these reasons, we are particularly pleased to be here today. The IGF is the ideal place to gather shared views on the four areas of discussion. A access, diversity, openness, security all of them relating to the Internet Bill of Rights. In fact, we firmly believe that it is our responsibility as policymakers to reaffirm our commitment to make the Internet a means of social cohesion and inclusion and to build a people-centered, knowledge-based, and progress-oriented information society. Nevertheless, defining principles and common rules for the Internet, especially in consideration of its intrinsic characteristics, also entails the definition of a new working method. Internet is, by definition, a place of extended discussion, of initiatives involving a large number of people. Therefore, it becomes evident that an Internet Bill of Rights cannot be achieved through traditional procedures typical of international conventions, that is, through top-down cooperation between governments or through classical forms of multilateral diplomacy. The Internet Bill of Rights can and must be the starting point of a unique process involving a multiplicity of actors at different levels. The dynamic coalitions, set up with the IGF, are the best example of this new approach that we intend to adopt. My country participates at different levels to the Internet Bill of Rights dynamic coalition which tomorrow will convene to share the progress made so far and to jointly identify the most appropriate way to define the bill of rights. We expect through your participation to bring together a number of actors who will concretely lay down, together with us, with our friends of the Brazilian government, and all the others, the basis of an Internet Bill of Rights. We know that it will be a long and difficult process, and it is not only a question of establishing governance principles of the largest existing space in the world, but also to identify the instruments able to guarantee afterwards that they become a reference system for the international community. In this view, we also look with expectation to the possibility of reaching an agreement in order to define a kind of "high commissioner" of Internet rights.

KIYOSHI MORI:

As we all know, the Internet has developed rapidly since its commercialization in 1994, and the number of its users is going to exceed one billion worldwide. There are many advantages of using the Internet. The Net can provide access to diversified choices in

goods and services, activate communication between people, and improve productivity of various industries. Toward this goal, all stakeholders must cooperate with each other in order to deploy the Internet further and share its fruits among all peoples around the world. Achieving such a good goal will not be easy. There are many issues to be tackled. And active challenges are needed to resolve those issues. I strongly believe that one of the important purposes of IGF meetings is to learn and share the experiences of the challenges with each other in order to make it easier to accomplish the ultimate goal of Internet deployment throughout society. According to ITU report in 2006, Japan has achieved the most inexpensive and fastest Internet access in the world. I think there are two main reasons behind this. Firstly, we established a national strategy for the ICT development. In the year 2001, we launched the e-Japan strategy, which promoted nationwide spread of broadband networks. In addition, in 2004, we set a ubiquitous Japan policy, which was aiming at enabling ICT connection to anyone at any time anywhere and with anything. Secondly, we promoted competition policy in the telecommunications market. In particular, the unbundling of the dominant carrier's facilities and the formulation of collocation rules allowed new entrants to the market. Thanks to this, innovations and new services had been developed which allowed charges to be dramatically lowered and increased consumer benefits. Although having achieved a significant development in the ICT field, we still have many things to cope with. As conventional telecommunications network is rapidly replaced by IP-based network, we are facing various new issues. I will point out three main issues. First, there is the issue of network neutrality. With more IP networks and broadband connections, more variety of services are being provided. As a result, the volume of packet traffic has increased and resulted in network congestion. Fair use and equal cost-bearing of the network infrastructure is becoming serious issues. Second is the competition policy issue that arises from the next-generation network. The next-generation network is expected to improve efficiency of network operation and reliability. Consequently, we have to establish the new competition rule to secure the mutual connection as well as the openness of service platform of the network. Third, it is necessary to promote information security. We have to improve the reliability of the network and applications, in addition to ensuring the essential communications in disasters and other emergency situations. In conclusion, I have shared with you our country's experiences and achievements, as well as our awareness of the issues, considering that our life can be improved through proper use of the Internet as a vital tool and that this IGF meeting is significant as the place for information-sharing towards that purpose. With advanced use of the Internet, new issues that we have not experienced before could emerge in the future. It is important to put our heads together to continue our efforts to tackle the issues and to find the exercise the best way forward. We believe that the IGF meetings can contribute to creating a path from the missing link to the collaboration link through open and free discussions. And Japan is ready to support positively such a movement with all of you. Thank you for your kind attention.

JOHN KLENSIN:

I do not have the privilege of speaking for a government or a large and important organization. I do, however, have some experience with the development of the Internet itself, and I hope I can share some perspective from the standpoint of the technical development of the Internet and how we got to where we are today within with a network which is serving billions of users and looking forward to serving billions more. Contrary to what one might infer from some of the conversations and discussions and publications one has seen in recent years, the Internet was not developed and invented in 1992. Some of us have been involved in work on what has become the Internet in its concepts since the late '60s, for nearly four decades. And many of us have understood

since then that this would ultimately become a global network if it was successful at all. It isn't perfect. In general, we preferred to get something working and implemented and deployed rather than getting it perfect, spending endless years of exploration and discussions about how every possible need could be accommodated. Had we chosen the course of discussion and accommodation of all needs, there probably would not be a working Internet today. The possibility of substituting discussion for deployment and access remains a risk today. One of the things I think we all need to understand and remember as these discussions in IGF and elsewhere go forward is, whatever you like about the present nature of the Internet and its reach, it is important to remember that the design, independent of funding and other initiatives, is not a consequence of any action by governments or intergovernmental associations. Among the many myths about the Internet is one that assumes the technological design and development community, especially the applications-level development community, has historically not cared about the rest of you or the rest of the world's populations, or has simply been naive about the social and political implications of a network like this. We've been concerned about making the Internet available to more people in more countries for a rather long time. There were serious discussions about multiscript naming and connectivity and content by 1972, including the first of many proposals as to how to do that. The notion that we didn't start thinking about these issues until people started talking about making the Internet multilingual the last few years just has no basis. Our Japanese colleagues had Kanji content on the Internet by 1987 and were actively using it in e-mail. Standards were in place for interoperable multilingual content by 1992, and were deployed rapidly after that, including being carried over into the Web. The original host naming rules that ultimately became the domain name rules were built on a foundation that considered national use characters and national character sets. The decision to exclude those characters wasn't based on an ignorant preference for English or Roman-based characters, but on the fact that the technology at that stage just had not matured enough for more international use and the observation that the use of multiple characters and multiple options has a tendency to make things less interoperable if these become choices. It is programs useful to note that the ITU and ISO made very similar decisions about identifiers for the network protocols associated with X25, and with key ISO identifiers for approximately the same reasons. Especially in less-developed countries, far more of the early connections that were sustainable and that had developed into today's Internet environment were the result of largely private sector, bottom-up efforts rather than major top-down initiatives. Mutual assistance networks for identifying e-mail connectivity paths came into existence in the early 1980s. Private efforts to get developing countries connected at least by e-mail and then with full Internet connections came about five years later, in the mid-1980s. Many of the Internet governance problems which we see today and see discussed are neither new nor Internet-specific, but are generalizations of more traditional problems, sometimes in rather thin disguises. For the subset of those issues that are appearing as generalizations, most of the reasons for casting them as new topics seem to involve more to do with topics and objectives other than getting the Internet spread and deployed and usable. Throughout history, at least modern history, we've noticed that criminals and pornographers have often been more efficient about adopting and adapting to new technologies, especially communications technologies, to their needs than most of us have been capable of adopting those technologies. We need to accept that and move forward with better technology, but, more important, better rules and better social structures and better societal constraints, rather than attacking the technology itself and risking damaging what in many respects a conference like this is here to celebrate. Unacceptable behaviors, including stalking, extortion, fraud, deliberate deception, are not really different, whether done face to face or over an

electronic communications technology such as the Internet. The Internet may call for better intergovernmental arrangements and agreements about prosecuting these crimes across borders and better technology for identifying the perpetrators. But we have precedence for those kinds of agreements which do not require new structures. Each proposed action that treats an unacceptable behavior differently depending on whether it's performed over the Internet or in some other context should be examined very carefully, and I believe with some suspicion. Finally, almost every decision which has been made about the Internet, from the beginnings to the recent times, both technological and policy, has had advantages and disadvantages. In the last decade or so, and as a community, I believe we have been very poor at looking at both those advantages and disadvantages and understanding that we're making tradeoffs. At least in retrospect, creation of a market in domain name has caused not only cybersquatting, but also phishing. Without the market, those problems would probably not exist in their present form. Creation of an e-mail regime that permits anyone to communicate with anyone else without having to be registered with and going through government-authorized providers, on models similar to the old PTTs, has turned e-mail and now instant messaging into important worldwide communications tools. But it also helps facilitate the work of the spammer and virus-spreaders. Even the decision to build useful and productive meetings like this and hold them involves implicit decisions to not invest the resources in, for example, clean water or alleviating hunger. In each case, I'd like to believe that we, as a community, have made the right decisions. But we need to remember that there are alternatives and, conversely, selecting those alternatives would have changed some of the things that we appreciate today.

#### MAUD DE BOER-BUCQUICCHIO:

The Council of Europe, which I represent, is an organization which brings together 47 of the 48 European countries on our continent to promote human rights, democracy, and the rule of law. Our primary task is to enforce, through the European court of human rights, the European convention on human rights which applies both off and on-line. Europe's main message, is clear: We want to secure people's enjoyment of a maximum of rights and services, with minimum restrictions, while at the same time seeking to ensure the level of security that users are entitled to expect. This is why our organization adopted, just five days ago, a policy recommendation for our governments on promoting the public service value of the Internet. We in Europe, we want an affordable, unrestricted, safe and diverse access to the Internet. First, the Internet is our business. It belongs to all of us, and must not become a virtual jungle in which its inherent freedom and anonymity are abused by criminals. These people may be operating in a virtual world, but the harm they cause is very real. Our response has been the Council of Europe convention on cybercrime and its protocol, the only existing international treaty dealing in a comprehensive manner and in full respect of human rights with crimes committed through the use of the Internet. It has been signed so far by 43 countries around the world. I encourage other countries to seek accession to the convention as soon as possible. The broader the membership, the fewer the hiding places. My second point is about children who represent one of the biggest categories of Internet users. The Internet empowers them, but it also creates new threats to their safety. Sexual exploitation of children is of course one of such threats. And this is why the Council of Europe convention for the protection of children against sexual exploitation and abuse outlaws groomers and pedo-pornographers and reinforces considerably international cooperation. This treaty too is open to non-European countries and I encourage all states to sign up to it. Let me also take the occasion to announce the birth this week in Strasbourg of a new "e-city" made for and with children. It will be hosted on our Web site, and its aim is very simple: Empower children so that

they can contribute to a better world nearer to their hopes and dreams. To conclude, we in Europe, adults and children alike, we have a dream and an ambition. The dream is to make democratic citizenship a reality for all on the World Wide Web. Our ambition is to show the world the way to achieve this.

CATHERINE TRAUTMANN:

As another European voice, I wish to affirm the strong engagement of all EU institutions in the process of the IGF which is, for us, a special and unique space for discussion between all who are involved in Internet governance. This platform gives us a common context of ideas, experiences, and propositions in which we can find inspiration for decision and action. The main topics brings the framework and continuity we need to bring our points of view closer. The adjunction of new items like critical resources, semantic web, protection of children, bill of rights and others shows that the method is open so that the responsibility of the results belongs to the stakeholders. I want to mention now the key points which we hope will be taken in consideration by the participants. Two words express basically the goal of Internet governance: Security and privacy. That means that the respect of fundamental rights and especially of freedom of expression must be considered as a truly unquestioned principle of information society. There is no free economy, free information if the freedom of individuals, NGOs and journalists has no sufficient guarantee. It's vital to counter attempts of censorship and ensure that Internet's capability to be a means of free expression is maintained. We must also ensure that technological convergence and economical concentration don't constitute impediments to freedom and diversity. That's why the respect of structural qualities on the Internet, openness and interoperability, is needed favoring complementarity of a superiority of platforms to reinforce its successful ability to boost innovation and creativity in our global knowledge economy as in the resumption of social injustice and the risky consequences of climate change. Security and stability of Internet are amongst our priorities because we think without them the citizens will not enjoy the benefits which the Internet offers and prohibited business will increase as will the violence against people like harassment or threats. Children must be especially secure online. It's very important that this topic can be discussed at the IGF. We know that practical solutions are expected to bridge the digital divide. This is not only about access and connectivity linked to energetic issues as well but also about access to excess which encompasses education and long life learning. It is also important to talk about IP address allocation, organizations dealing with this issue are encouraged to continue their work towards shaping allocation policies of IP addresses, in a way respecting the justified needs of the developing countries. Internet is in constant evolution in its technical aspects as well as in its services. For example, the Internet of things is the subject of more and more deliberations. As a concept, Internet of things needs concretization and it would be good to take and discuss this topic which is an emerging issue in public policy perspective in the agenda of the next 2008 IGF meeting. Let me finish in expressing the hope that a successful meeting of the IGF will motivate institutional partners of the enhanced cooperation to join the movement, and with some efforts participate to this mutual benefit. States must elaborate their discussion, strategy, and method as IGF build its own. Transparency, flexibility, and reciprocity are basic principles when we want to achieve a free, safe, and democratic Internet.

JAINDER SINGH:

ICTs are a fundamental all element of all emerging global knowledge societies. They may lead to greater opportunities for those who can partake of them, but they may also lead to greater exclusion for those who cannot. While India is a leading country in the IT

sector globally the benefits of the Internet revolution have not fully percolated to the everyday life of the common man. This is particularly true for those in the rural areas. Inclusive development is an imperative. We are of the view that the IGF needs to maintain the overall development orientation across all the themes. There are several challenges that must be addressed in order to make the vision of a truly inclusive knowledge society a reality. Perhaps the first challenge towards enabling a solution on such a large scale is to review the issues relating to access: Broadband access, access to technology, access to content. This is no easy matter, especially in India which is demographically and linguistically so diverse. The government has launched an ambitious process to establish 100,000 village Internet kiosks a national broadband network is being rolled out to give connectivity to these centers. This would provide access to 600,000 villages. These centers are being established through a public/private partnership model. The centers would provide access to education, telemedicine, public services, remote banking, and entertainment to hitherto unreached sections of society. These 100,000 centers are expected to be operational by December 2008. Capacity building is a private area to enable meaningful participation of a larger number of people in the use of the Internet. This is critical because of the challenges posed not only by illiteracy but also by information illiteracy. Diversity is particularly important. In India, which is a truly multilingual society, only a relatively small percentage of Indians can read and write English. We believe that Indians should be able to use the Internet in they're own languages. We have as many as 22 official languages, and 11 scripts. In this context, Internationalized Domain Names assume importance. We are an open society, and as a democratic nation we support the principles of openness in the Internet domain. We need to focus on security aspects as well. The stakeholders in the Internet need to do more to promote Internet security. There is a greater need to exchange and make available data pertaining to incidents as well as to technological solutions to resolve and prevent such incidents. We already have more than 200 million mobile users. We are now adding 7 million users every month. This makes us the fastest growing mobile market in the world. We hope that India would also be able to achieve similar growth in the Internet arena. The 3rd IGF will be held in India in December 2008. We are sure that the fruitful discussion of this second IGF will set the tone for the evolving dialogue in the IGF.

GILBERTO GIL:

I am certain that politics are being re-invented here. We all know about the huge challenges our imagination and our intelligence received with the existence of the Internet. All of that means today a new proposal for political spheres in contemporary societies. We are reviewing the ideas that oriented the social spaces and values, spaces that were called cities or republics before. The names that were given to this public, Republic, which would be the space for the co-existence of people no matter how different their cultures and economic conditions. The Internet is the new example of this immaterial society. It is symbolic and creates a space to exist fully for all differences. It is the concrete example of this fabric of cities and spaces in contemporary life. We find in the word "governance" a way to exemplify what political processes require for us to come to minimal agreement and consultations. We are practicing here in this ritual of approximation and mutual knowledge. We are now approaching this novelty in new policies. However, there are conflicts that go beyond lack of knowledge. It's different points of view that need to be taken into account. Just our active and critical collaboration will be capable of absorbing the different needs that are at stake in the new era of communications and exchange. Our imagination must invent new frameworks allowing us to regulate these conflicts for the benefit of all and for the establishment of a common environment of cooperation. We need to state that

our cooperation to create public policies in this world summit has the purpose to invert the picture of asymmetries that we see today. I can see that our discussion will progress during these days, taking yet another step along the past that will lead us to a global public policy. I am persuaded, that the new technologies are the infinite possibilities that our civilization has built for the exercise of its own new relationships and freedoms. Now this language that follows standards different from traditional ones must be accessible to all, because until all of us are free, then each one of us is less free than he or she could be. The treaty established by UNESCO is a very important framework showing the path towards a good relationship between states and societies. We are in an era when access for all to the knowledge generated by mankind is the only condition for us to have justice and safety. We are becoming aware of the fact that the intensity of conflicts increases as systems of deprivation increases for populations and territories. The Internet must be a territory for all, an area of public coexistence for the exercise of this new citizenship. There is a promise which needs to be fulfilled and carried forward by each one of us present here today. We have to help prevail the spirit which is behind each word. And we must not allow our speeches to empty or meaning. We need to have a live economy supporting symbolic values and densities. We have to be able to navigate on this ocean along its flows in order to weave the networks and links that dynamize our contemporary society. And these words just need to remind us all that our speeches and our languages should be focused on this greater aspiration that brings us all here and which is our reason to be, our possible worlds are built and spread by our voices. The Internet is transnational. It cannot be under the control of a country or even of some countries. We need an ecology for the network like we need an ecology for the planet. And to deal with these issues, we need perhaps to think about extending the mandate of the United Nations on the subject. We need to establish a post-multistakeholder system, a new multistakeholderism.

### 3. Critical Internet Resources

#### Session Chairman:

- **Plínio de Aguiar Junior**, Member of the Board of the Internet Steering Committee (CGI.br)

#### Moderator:

- **Ulysse Gosset**, France 24

#### Panellists:

- **Carlos Afonso**, Planning Director, RITS, Rio de Janeiro
- **Alain P. Aina**, Founder Member, Africa Network Operators Group, Togo
- **Vint Cerf**, Chief Internet Evangelist, Google
- **Lesley Cowley**, CEO, Nominet (.uk)
- **Raul Echeberria**, CEO, LACNIC
- **Milton Mueller**, Professor, Syracuse University, School of Information Studies, Syracuse N.Y.

## Discussants:

- **Juan Fernández González**, MIC, Cuba
- **Robert E. Kahn**, Chairman, Corporation for National Research Initiatives, USA
- **Rt Hon Alun Michael**, Member, United Kingdom Parliament

## PLÍNIO DE AGUIAR:

I would like to welcome the participants of the first session on critical Internet resources (CIR). This subject is new compared with the IGF in Athens but follows the mandate of the Tunis Agenda. This session should debate issues related to infrastructure and the management of critical resources on the Internet, including the management of the domain name systems, Internet protocols, the management of root servers, standards, interconnection points, telecommunications infrastructures, converging and innovative technologies, as well as the transition to multilingualism. It is consensus that Internet governance is a broader theme than the management of Internet resources. CIR is a cross-cutting issue. Administrative decisions of the management of such critical resources cannot be taken without the necessary consideration of its consequences in terms of public policies. And, therefore, governments have to oversee such policies. Internationalized domain names or the adoption of criteria for the allocation and reallocation of IP addresses, including the migration from IPv4 to IPv6 have a great impact on the drafting of digital inclusion public policies and the Internet in the developing world. The governance model constituted by ICANN and other organizations connected to it bring innovative aspects to the classical intergovernmental organisms supported by the U.N. This is an important development towards the construction of a governance model that is multisectorial and multistakeholder. ICANN efforts to ensure full and diversified participation of its meetings - and the meetings are held every four months, alternating all five continents - are initiatives that should be praised and reproduced by IGF and other mechanisms. We should recognize that the present global governance system of the Internet, ICANN is the only institution that is not intergovernmental, with in mind a specific mechanism for the debate of public policies as part of governments. We must follow with interest the initiatives, try to make the decision processes as transparent as possible, democratic and participative and strive for the independence of the institution vis-à-vis any government. With the objective agreed upon in Tunis to make possible to all governments, under equal conditions, to participate in the drafting of global public policies, we should consider also the strengthening of the GAC and provided with the adequate level of institutionalization to enable the participation of governments and ensuring greater representativity, especially from developing countries, the presence of which in these mechanisms still very shy. And a convergence of efforts within the context of improved communications according to the Tunis Agenda should help promoting based on administrative experience and technical capacity of organizations involved with such themes of better performance of developing countries and better participation of these means by developing countries. As regards physical structures, the existing governance mechanism represented by ITU has likewise undergone several adaptations with a view to expand the -- have more nongovernmental representatives in the processes to draft policies. In this regard, several resolutions were adopted at the last plenipotentiary meeting of the ITU, held in 2006. It seems necessary that both institutions -- ICANN and ITU -- should continue to develop in the convergence manner in adapting their decision mechanisms, making to the precepts in the information society summit in a coordinated manner in the direction to a governance model that is transparent, multilateral, multistakeholder, and

democratic, and all sectors can carry out their roles according to the Tunis Agenda, therefore legitimizing them in the exercise of the roles which historically they have been carried out in the management of critical resources of the Internet after Tunis. I give the floor now to the moderator, Mr. Ulysse Gosset.

ULYSSE GOSSET:

We have here a very prestigious panel to talk about Internet critical resources. And we are going to talk, *inter alia*, about the the future of ICANN and the transition from IPv4 to IPv6. To start, I would like to introduce Vint Cerf. He is one of the founders of the Internet, chief evangelist at Google and former chairman of ICANN.

VINT CERF:

I have just a few points I would like to make at the outset. The first one is to emphasize that ICANN is a multistakeholder structure which was born that way, and it has developed increasing mechanisms for involving interested stakeholders in policy-making with regard to the domain name system and to Internet address assignment. I think that one of the most important components of ICANN is the Governmental Advisory Committee, and it's very important to all of us that we see increased participation in that group in order to assure that public policy issues are adequately addressed. By the same token, just recently, ICANN has managed to complete the implementation of its At-Large Advisory Committee, replacing the interim committee and creating a number of regional at-large organizations in order to inform discussion on public policy coming from the civil society. The second point is on infrastructure and critical resources. Almost any resource which is important to implementing the Internet becomes critical at one time or another. For example, having electric power available can become a very critical resource. Having a technical workforce that is available to help you build and operate pieces of Internet, having a highly open standards-making process is a critical resource. So in the course of the discussion in this panel, I hope we don't lose track of the breadth of the resources that are needed in order to successfully implement and operate this global Internet. The third point is domain names. There has been substantial progress in the last 12 months in the expansion of the domain name space towards non-Latin character sets. There is today a set underway with 11 scripts that are not using Latin characters in order to evaluate the effect of those kinds of top-level domains on the various applications, the browsers, the e-mail applications, and the like, that might encounter such domain names. The intention is to reach the point where ICANN can invite proposals for top-level domains in these new character sets somewhere around the middle of 2008. And this objective is for both the country code TLDs and also for the generic ones. The fourth observation is with regard to IP address space. There is repeated warning that IPv4 addresses will eventually be exhausted. This doesn't mean that the Internet stops working. It just means that we won't have any more of that address space to hand out. ICANN's blocks which are allocated to the Regional Internet Registries will probably be exhausted somewhere around the middle of 2010. This simply emphasizes the importance of introducing a concurrent operation of IPv6 with a much, much larger address space. There is plenty of IPv6 address space available. But it is not enough simply to have an address. The IPv6 addresses are meaningless unless they show up in a routing table somewhere. And the inability to reach everywhere in the Internet with the new address space is a serious barrier. When the Internet was first implemented and as it grew, every time you connected to a particular network, you could reach all of the other networks on the Internet using the IPv4 address space. But in today's terms, IPv6 is not uniformly implemented. When you implement IPv6, unless you connect to another IPv6 network, you may actually be an island of IPv6 operation. And while there are mechanisms, such as tunneling through

the IPv4 connected network, I would like to suggest the importance of adopting policies that will encourage IPv6 connectivity among all of the ISPs. Governments could choose to subsidize the cost of interexchange points that would encourage interconnection using IPv6 address space so as to reach as quickly as possible a fully connected IPv6 system in parallel with the IPv4 system. Finally, the last point I'd like to make is that capacity-building is one of the Millennium Development Goals. Nothing could be more important than to build additional capacity so that we can reach the other five and a half billion people in the world who do not yet have access to the Internet. And that is really the biggest focus of attention that I can think of right now, establishing policies that will in fact encourage the implementation and spread of access to the Internet and its use.

ULYSSE GOSSET:

We have now Lesley Cowley, CEO of Nominet, the not-for-profit registry for the U.K. She is also a council member of the Country Code Name Supporting Organization (CNSO) and chair of a working group aiming to improve country code manager participation in ICANN and regional organization.

LESLEY COWLEY:

Nominet manages dot UK which currently means we manage 6.4 million names. So we run a large registry, but we are a small part of the global critical Internet resource which is defined as a quite a large area, and in turn, that's just one part of the global Internet. I have been with Nominet for eight years now. I have seen huge growth and change. I've seen evolution, not revolution. And I have seen registrations grow from 3,000 a month to 6,000 a day. I have seen the number of registrars grow from 100 to over 3,000. And we have invested millions of pounds in our systems and infrastructure to cope with growth and provide resilience and reliability to all of our customers. As a not-for-profit in the time we have been in existence, we have been able to reduce our prices from the grand sum of 100 pounds to five pounds currently. As a result of all of this, UK citizens can get online quickly and cheaply, and this small part of critical Internet resources works well for them. I have also seen a continued development of the UK multistakeholder approach. My sector in the UK hasn't really got any legislation or regulation. We work on the basis of industry self-regulation, which means we work in partnership with all stakeholders and also with our government. And as part of the evolution of the UK multistakeholder approach, we have been running a local IGF in our own small way. From this discussion within the UK there come two strong concerns from the users within our country. We have concerns about security going forward, and we have concerns about access for developing areas of the world. I have also seen an evolution of ICANN and in particular, Nominet's relationship with ICANN. In the years since Tunis we have exchanged letters with ICANN which describe and recognize our positions. We have also joined the CNSO where we learn from other country code managers and share experiences and policies from our country. We also develop global policy where it's necessary to be a global policy. For example, in the Internationalized Domain Names space. I have seen some positive evolution as well, of the service that IANA provides. Of course IANA knows there's more to be done in terms of participation, and we are committed to helping improve participation in both ICANN and regional organizations going forward. There's also more to be done on improving ICANN's accountability, particularly as it moves towards greater independence in the future. To conclude, critical Internet resources actually isn't a hot topic in the U.K, particularly for users. When we discuss it at Nominet, the key issues that really matter to us are about enhanced cooperation and evolution, around security and access. We see no need for new structures.

ULYSSE GOSSET:

I give the floor now to Alain Aina, founder and member of the African network operation group, from Togo, he is also a member of the ICANN security and stability committee.

ALAIN AINA:

When you speak of managing critical Internet resources, generally you refer to the addressing systems, the domain name systems, the server system and operational issues like stability and security. An issue that's not raised very often is routing. Routing is a key issue of Internet. If you look at one of the difficulties in the development of Internet today, it's the management of routing tables. A major challenge is incorporating security in most of these resources and a clear identification of who owns an IP address block, which we call a certification of an Internet resource, making routing secure. These new challenges have technical aspects, but there are also legal elements and decision-making elements at several levels. Another point is infrastructure. From an African country's point of view, these really is a critical element. If you don't have electricity, if you don't have the telecom infrastructure to get access to broadband Internet, you have a problem. These critical elements prevent the development in our countries of resources such as the establishment of a root server. You can't have a root server unless you have the infrastructure there for it. With other words we need to expand the scope of what we mean by critical resources. The multistakeholder approach that's been developed by ICANN has helped us to launch AfriNIC. We have seen that AfriNIC, with the support of other regional African bodies like AfNOG, AfriSPA and others, has made it possible to increase Internet penetration in Africa. This is a model which must be encouraged. It's a model which is gradually bringing governments around, getting civil society more and more interested in these issues and making them cooperate more for better management and better governance of these critical resources.

ULYSSE GOSSET:

I would like to give the floor now to Milton Mueller, who is professor at Syracuse University in the United States.

MILTON MUELLER:

Critical Internet resources is something that means to me, basically, domain names, root servers, and Internet protocol addresses. Both of these are virtual resources essential to the functioning of the Internet. Just like radio spectrum, we need to agree on policies to globally govern their allocation and assignment. Note the word "global." The difference between these critical Internet resources and many of the other things we have heard are critical, such as electrical power and telecom infrastructure, is that there is an inherent and fundamental need for global coordination. And therefore there is a new kind of governance problem for these Internet resources. Electrical power grids are coordinated at the national or local level or regional level. You do not need global governance of electrical power resources, and in fact there's very little a global forum like this can do about electrical power. But there is something we can do about the critical Internet resources. In fact, to go beyond the dialogue a bit, we all know that critical Internet resources in the world summit became a code word for ICANN issues and the underlying problem of unilateral control of Internet resources by one nation state. There are people who prefer that those issues not be discussed here at the forum, but that's obviously no longer the case. We are discussing them, and I'd like to thank the Brazilians and my colleagues in civil society for making that happen. Now, these issues are being discussed, and quite productively, within ICANN, and the

Regional Internet Registries. There's a lot of technical expertise there. But we also need to discuss them here, where there's a much broader set of stakeholder groups, not just governments but others. And we need to focus on the public policy implications and not just the technical implications. So what are the issues, as I see them? First, we are running out of Internet addresses. We need to develop new mechanisms and allow people, for example, to trade addresses so that they can be moved from people who don't need them to people who do need them. Unfortunately, there are people who have buried their head in the sand on this issue because of repeating old practices and don't want to make that change. Second, there is a new protocol, IPv6, that would create more address space. But the somewhat alarming fact is that this new protocol is not backwards compatible with the old Internet protocol. And the transition to IPv6 raises the risk of severe economic and technical dislocations as we move forward. These are fundamental global public policy issues pertaining to the basic ability of the Internet to function. Third, we need to secure the domain name system. That means we have to define a new process for encrypting the root zone file so that it can serve as a trust anchor for the global Internet. And this reincarnates the continuing saga of who rules the root. Finally, we have the creation of new top-level domains, some of which will be multilingual, and this raises interesting problems of global content regulation, problems of national Internets, problems about the control of language communities, and the problems of market dominance in DNS services. So in short, critical Internet resources are truly global governance issues. We need the forum to raise awareness of their importance and to develop consensus around globally applicable public policy principles for governing them. By participating in the forum, we do not necessarily accept the premise that governments need to assert unilateral control over public policy issues. We can develop new institutions that provide for more pluralistic, networked, and private sector-based forms of governance as well as understanding and implementing the role of governments more effectively.

ULYSSE GOSSET:

Now we are going to listen to Carlos Afonso who is also a board member of the CGI, the Internet Steering Committee for Brazil for the third sector, the civil society.

CARLOS AFONSO:

If we broaden our understanding of critical Internet resources to the multiplicity of issues which are critical for sustainable human development, and we could include also content as a supercritical resource, the discussion of all of them will be trivially useless. The story of insertion of this theme in the IGF program has been centrally motivated by the concerns from many stakeholders regarding true autonomy in the running of the worldwide logical infrastructure of the Internet. In the Working Group on Internet Governance (WGIG) we ended up with a generic formulation which simply says that the Internet is critical and everything that contributes to its functioning is critical as well. We should read carefully Vint Cerf's statement on the ICANN Web site. It's not from a scientist who co-invented TCP/IP. It is from a seasoned, open-minded visionary with a unique broad experience and expertise. The point is how ICANN, despite the well-known odds, is evolving in the direction of serious considering internationalization and autonomy in a multistakeholder setting. In my view, we should follow a scenario of evolution, or, as Jack the Ripper used to say, let's go part by part. The kernel of the internationalization problem for many seems to be government control of the root server file system. We could envision an organic structure in which this would remain with the same organization that exists today from the point of secure and reliable operation. It works quite well, except for the procedural aspect. What we need is a gradually clearance from the US Department of Commerce, which means rewriting or ending the

MOU altogether. Secondly, governance of the generic domain names should be entirely in the hands of a modified GNSO. Also the ccNSO should be strengthened as an independent institution so that decision-making regarding domains would be the exclusive realm of these two multistakeholder organizations. A third point could be ensuring independence from any government of the so-called IANA function. The worldwide governance of the IP number distribution could continue under a fourth institutional structure, obviously the NRO. Besides being responsible for the secure, stable and efficient running of the root server system and in coordination of protocols via the current IETF arrangement, ICANN would thus become the umbrella organization of all these four organic structures. And the construction of this can be carried out via a careful plan of institutional rebuilding. All of the four specific instances would be overseen by their corresponding multistakeholder boards and the ICANN board would be the coordinating board for this institutional ensemble.

ULYSSE GOSSET:

Our last panelist is Raul Echeberria from Uruguay, the CEO of LACNIC.

RAUL ECHEBERRIA:

I believe that all of us here are in agreement that we should discuss the root servers and the domain system. I would also like to except and point out that these resources are not necessarily critical. There are other resources which are critical. Some people see this difference as a means of avoiding the debate of these issues. But we should debate this theme in this forum and avoid misinterpretations. One thing is critical resources. The other thing is resources due to their own essence in their operation that includes risk management, which is the case of most of these resources. And so to add in your daily operations the risk management is actually something that should be done for critical Internet resources. Furthermore I'd like to mention here the progress that has been achieved in recent times, that is the cooperation amongst the difference stakeholders within and among existing organizations. ICANN has taken important steps causing a permanent evolution in the few years it has existed. The Number Resource Organization (NRO) of the five regional registries for Internet addresses, has supported this evolution towards more internationalization, more multilingualism and more independence. The principles are laid down in the Tunis agreement. But beyond the satisfaction what has been achieved there are new challenges. The issue of the IPv4 addresses and transition to IPv6 is an example. The RIRs have brought this theme up in several different for a, including governmental organisations. One specific point of IPv4/IPv6 is to divide the issue it into two areas. On the one hand this is part of the RIRs. On the other hand, this is also part of the national ccTLD Registries. The adoption of a new technology as IPv6 is not the responsibility of one organization. This is the work that should be done in a coordinated manner. This is work in which government has an important role by means of the promotion of dialogue with industry and by means of incentives. The other aspect is to work towards providing a harmonic passing over to IPv6. We have the active participation of thousands of people in all regions by means of open and transparent and participative processes, which it has demonstrated the present policy development processes have proven to be appropriate to deal with the situation. And as many of these policies are global policies, they will need the ratification of ICANN and a process by which governments are consulted through the Governmental Advisory Committee. There is important coordination work of practical and operational work between the RIRs and IANA in order to ensure this transition.

ULYSSE GOSSET:

Let start now with the discussion

ALAIN DURAND;

I would like to know what could we do as a large service provider moving to IPv6 to help content provider to bring back valuable content available on IPv6?

VINT CERF:

The first answer is that if you go to the ISPs and say to them "I want to provide my content on IPv6. What can you do for me? What kind of access can you give me? And, oh, by the way, what reach do I have? How well can I touch the rest of the Internet using IPv6?" If more of us in the community that consume Internet services or provide Internet services through the ISPs went to them and said, "I now need IPv6 as well as IPv4," it might persuade them that they need to supply it. Right now, they're not convinced because they're not hearing very much demand. So I urge you to raise that issue with as many ISPs as you are able to.

From the floor:

I am a representative of the Russian Federation. Ms. Cowley, in your statement, you said that you see a problem with the inspection of the participation of international organizations and the mechanisms for expanding that needs to be resolved. How this problem can be resolved? What mechanisms can be used in order to solve this problem you have identified?

LESLEY COWLEY:

Let's be clear. I don't see this as a problem, I see it as an opportunity, particularly in the ICANN arena for country code managers, I see that as an issue that can be dealt with in terms of remote participation, in terms of improved communication, and people understanding the benefits and ways in which they can get involved. ICANN has also introduced a fellowship scheme. And there is priority in that scheme for representatives from country codes and also from the Governmental Advisory Committee. And I very much see some new faces coming to ICANN meetings as a result of that scheme. I very much hope that will continue. I also see as important participation in regional organizations. We have a spread of regional organizations across the world now. And many managers of countries can get involved in those, as well as in the ICANN arena.

From the floor:

I would like to know how ICANN intends to prevent domain name conflicts concerning to registered trademarks. WIPO has procedures for dispute resolution after the conflict has happened. Can ICANN do something to prevent such conflicts?

VINT CERF:

I'm sure you're familiar with the earlier development of the the uniform dispute resolution (UDRP). As we go forward into the internationalized domain name territory, this is a place where there's even increased concern. There are mechanisms that have been proposed by the GNSO to try to assure that trademarks are properly protected.

LESLEY COWLEY:

I'd just like to add that we need to set this problem in context. In the UK less than .01% of my 6.4 million names have a dispute. And, actually, not many of those are about trademarks. And many countries have developed their own dispute resolution policies.

It's our belief that in a country context, national policy needs to be set at a national level to address national needs.

JUAN FERNÁNDEZ GONZÁLEZ:

I am from Cuba and was a member of the WGIG. Networks are converging. That is inevitable. And some think it should be inevitable also the convergence of the institutions which regulate and coordinate on a global level. We could mention here, inter alia, ICANN and ITU. What do you believe, how should this institutional convergence procedure take place?

MILTON MUELLER:

If you look carefully at convergence within industries, you do not really see convergence per se, if that means different industries coming together into the same place. What you actually see is the Internet taking over everything. So, to draw out the parallel, I would suggest that rather than seeing the ITU converge on ICANN and converge on OECD and all of the other institutions that are currently trying to in some way affect Internet governance, would you would more likely see are the growth and spread of the authority and significance of the organic Internet institutions. For example, ICANN's budget has grown now to \$50 million. And in 1998 when ICANN was created, I predicted that within ten years, it would be the same size as the ITU. And everyone laughed at me. But now I feel vindicated. The RIRs are extremely well-endowed institutions, let me say. Not that there's anything wrong with that. But these institutions are growing and getting stronger. And they have a new ethic of multistakeholderism which is very important. I would see rather than convergence of the old institutions, perhaps a more Darwinian process in which the old institutions die and the new ones grow.

VINT CERF:

I'd be hard pressed to object to anything that Milton just said. I would like to make an observation, though, about this convergence notion. It is not necessarily the case that a medium which moves from, let's say, the traditional television world of broadcast or cable or even satellite, when it moves into the Internet environment, it may not be the same kind of television that you thought it was before. People use the medium differently. There are different opportunities for sustaining that medium, for supporting its costs, and the like. And so the regulatory oversight and structure for businesses that operate that medium in the Internet world may be quite different from the ones that may have been appropriate in other delivery mechanisms. So I think that, in my view, anyway, convergence does not necessarily endow any of the previous regulatory structures with any primacy, and, in fact, we may see completely different kinds of media arising out of this convergence with Internet delivery mechanisms. I think, like Milton suggests, there may be a Darwinian imperative here that you either adapt to this new environment or you die.

CARLOS AFONSO:

Institutions like the ITU, with their one and a half century existence, will need to modernize in order to follow up on the convergence process. And, of course, they have a good part of the pie in this process. But which one exactly is changing? I'm just complementing what Milton Mueller says. Either modernize, rearrange, or die.

From the floor:

It's a general question to Vint Cerf. Do you think the U.N. is the best place for this

forum, knowing the overbureaucracies of the UN?

VINT CERF:

A most dangerous question to ask in this setting. I would like to suggest to you that the convening power of the United Nations is evident in this meeting. And it has been quite valuable so far. Certainly the Athens meeting resulted in a great deal of exchange among people who did not normally interact with each other. And I suggest to you that that's happening once again in this meeting. And so I value that. I don't necessarily believe, however, that the governance mechanisms that have evolved around the Internet need necessarily to move into the U.N. orbit in a direct way. I think that these new multistakeholder structures deserve some time to evolve and develop. We've had eight years at ICANN. And I think we've got a pretty stable structure, so I think at this point the value of U.N. contribution is in the convening of these kinds of discussions.

RAUL ECHEBERRIA:

What we felt in the WGIG was the need to create the new dialogue mechanism for the exchange of ideas. The existing mechanisms within the U.N. were not enough to give voice to all stakeholders. The IGF stands for a culture different from the classical culture of UN organizations. However the UN was very useful to create this forum. The UN represents something that generates trust, because it's neutral. To have the IGF under the UN Secretary-General can help very much to make the IGF a success story.

RALPH BENDRATH

I am from University of Bremen in Germany. Milton made a convincing point that the management of critical Internet resources is a global governance issue and that we need global public policy and global public policy principles. How it should look like? A Darwinian process is market-driven and I don't see the public-policy aspect of that.

MILTON MUELLER:

I would like to see global governance institutions evolve and become stronger, and particularly in the field of the Internet, I would like to see I guess some kind of translation of notions of liberal democracy into the global sphere so that we have a constitution which limits the power of what public authorities can do at the same time as it empowers a global public to directly select and control these global entities. I was a big supporter of ICANN's original model in which they actually had a membership which voted on the board members. And I was disappointed when they departed from that and set up more of a corporate, self-selecting board structure. On the other hand, I know enough about history to know that there are powerful interests at stake, and sometimes good ideals can become warped in the implementation by the push-and-pull of politics.

From the floor:

I'm from the China Internet Emergency Response Group. How to ensure the decision-making mechanism that gives equal participation to the developing countries. How to implement the WSIS principle of multilateralism, democracy and transparency. How are you going to propose the solution to the problem that the DNS is finally controlled by one government? Is there a timetable for the solution of this problem?

MILTON MUELLER:

Getting the U.S. government out of it you denationalize the control of ICANN which means you must establish appropriate forms of accountability for ICANN. And there are various institutional proposals around for how to do that. Carlos has proposed one of

them.

CARLOS AFONSO:

The jack the ripper proposal.

MILTON MUELLER:

He wants to use that name. In terms of what timetable and how fast, we believe that this could happen as soon as in two years, maybe sooner. It depends on certain ICANN reform processes. Once you have denationalized the name and address spaces that you should rely also on some kind of framework of principles for how governments exercise oversight. We prefer to think of this not as governments intervening in ICANN whenever something happens they don't like but again having very clear defined principles and rules that limit the power of governments as well as of ICANN, and that the governments basically make sure that ICANN treats people fairly and doesn't abuse its own processes but does not try to shape the policy outcomes on a day-to-day basis based on geopolitical contention. We would like to remove the Internet from geopolitical contention as much as possible.

VINT CERF:

I'd like to suggest to you that the current processes for dealing with domain names are largely bottom-up processes. ICANN does not dictate what top-level domains are proposed. It has to deal with those which are proposed. Mechanisms for determining whether there are conflicts in interest for certain domain names are being developed. This is going to be particularly important with the Internationalized Domain Names. And I think I feel also compelled to point out that the U.S. government, in its oversight role thus far, has never rejected any recommendations made by ICANN for the installation of top-level domains either country code origin or generics. It has been, frankly, a rather benign operation. I fully understand the desire to de-politicize by having no special responsibilities by any one government. That's why there's a GAC. It's there to absorb the public policy aspect of ICANN's operation.

From the floor:

I am from the kingdom of Saudi Arabia, the ICT government unit. I wanted to comment on the point about electrical power and that it is considered as a critical resource. Fortunately, electrical power is not controlled by a single company in the world. Otherwise, we may not be meeting here. Anyway, my question, which was not fully answered is a question on GAC. GAC is still a group that is only advisory, and we would like to know whether you expect the GAC to have a fuller powers in terms of international public policy as was mentioned in the final results of the WSIS summit. In my opinion, the role of governments is very clear. WSIS says that the role of governments is drawing up public policy for the Internet.

RAUL ECHEBERRIA:

As RIRs we support ICANN's independence from governments. We support those so that no specific government will have a dominating role in the management of those resources. Having said this, is it important that we must distinguish the formal aspects of these special powers of a government regarding the aspects, how things are run in reality. This is purely bottom-up, both for the development of policies on the regional level as well as for the development of local policies and the decisions how IANA should manage their decisions and the IP addresses, and based on what they should allocate those. The US government has participated in the discussions and this has worked

perfectly so far. Regarding the GAC in itself, this is a discussion between governments and the rest of society. To date, as regional registries we have never had to discuss an issue that comes from GAC saying we want to have more power. GAC has a function that the governments have agreed to, and that is good. However, if at any moment the government must have different operation then we say we support any reform or evolution of this GAC and we are willing to analyze any proposals to be submitted, which has not happened thus far.

ALUN MICHAEL:

The plea, let's not get bogged down on the issues of the management of the domain name system and be diverted from being really excited about the innovative nature of the IGF, which was stressed strongly by the secretary-general this morning. We consulted in the UK about people's priorities for Rio. That included industry, civil society, NGOs, parliamentarians, as well as government. And what came through was that security, confidence, is the biggest issue. And that's very much an issue for partnership in design. It's also important to link security to enterprise. In other words, security has to be connected to the cutting edge rather than as an after thought. So, for example, this morning, in his comments, the secretary-general mentioned child safety as something that should be at the heart of our work at the IGF. Vint earlier talked about access for all children. And those two are linked, access and safety are linked. We need to make those connections. Because the Internet is so big, so fast, everybody grasps one corner of the picture, be it security, communications, education, open access, and we lose track because they are interrelated. I think, the comment from Mr. Unger this morning was wrong to look for an old-style institution to be able to deal with the institutional aspect of this. That's reaching for a safety blanket because it's a shape we already understand. The shape has to be much wider: people, information, progress, development, as well as systems. That's why in the U.K, we are going to try to walk the talk, and demonstrate our belief in the IGF approach by establishing a United Kingdom Internet Governance Forum, bringing together industry, NGOs, parliamentarians, with government to tackle the sort of issues that we're talking about. How can we deepen the cooperative engagement, the teamwork, the bringing together of people between IGFs so we are making that much deeper and stronger.

VINT CERF:

I am quite interested in the experiment you are planning to perform the UK IGF, and so I hope you will keep us advised of the success of that effort. With regard to interactions in between the IGF sessions, there are several options. One of them would be for the participants in the IGF to participate in some of the other organizations' meetings that take place during the course of the year. Going to an RIR meeting in a regional area, coming to an ICANN meeting, going to one of the Internet society sponsored events. All of those things would be helpful because those of you who participate so far only in the IGF would be bringing your thoughts and perspectives to these other events as well, and I would find that very useful, because when we reconvene the IGF again, you will be bringing some exposure to those other activities. That would be very helpful in the course of the discussions that we have in the IGF.

MILTON MUELLER:

If I could go back to that question about GAC which I don't feel has been properly answered. GAC is the wrong model. Governments should be outside ICANN, acting on an integrated basis as a check or balance. Remember the idea of a constitution, of a set of globally applicable rules that would serve as a basis for constraining ICANN when it does something wrong and enabling it to do the things it needs to do. But to have

governments inside of ICANN is a very unstable and informal and very unworkable solution to the problem of the relationship between governments and ICANN, because what happens is that you develop policies through the organic tracks of ICANN and then the governments stick their fingers in and say "i don't like the results of that" or "we can't agree." GAC – as an advisory body – has in fact enormous informal kinds of power. Things have been held up in ICANN simply because certain governments don't want them to happen or to be concluded or they have been short circuited and thrown back into the process of policy development. So you have no well defined formalized set of powers for GAC. The joke in the US during WSIS was the U.N. was out to take over the Internet. The response is that if the UN takes over the Internet, it will do so through the GAC, because governments within GAC have more power than the UN or ITU will ever have over ICANN.

From the floor:

I am an Internet researcher and my question relates to Internationalized Domain Names. What triggered ICANN to start these policies? And what consequences have yet to come from steering away from the uniformity? How effective will Internationalized Domain Names be in various countries, and will the content be equitable to the structure of what they are planning to do with the domain names?

From the floor:

What steps are you going to take to check for malicious domain names? This is increasing day by day.

From the floor:

Ms. Cowley said U.K. users are not quite as interested in critical internet resources issues as perhaps one of the top-ranking priorities of U.K. users. She also mentioned that U.K. users are more interested in among other topics, enhanced cooperation. Well, paragraph 70 of the Tunis Agenda on enhanced cooperation says that using relevant international organizations, enhanced cooperation should include the development of globally applicable principles on public policy issues. Associated with the coordination and management of critical internet resources. Now, just to quote another speaker, Mr. Aina said that there are technical as well as legal and policy-making levels to be considered when addressing any specific critical internet resources problem. How do you think that the present structures, like ICANN, could be improved so as to allow for the relevant actors to consider legal and policy-making aspects of critical internet resources management, and to develop globally applicable public policy principles. In particular, by governments, since they have this particular role according to the Tunis Agenda.

ROBERT KAHN:

What I really wanted to do was put this discussion today in another context. There have been a lot of specific questions and a lot of very specific notions put forth. But I think it's really important to see this in sort of a setting of time. The Internet has had a rather complex evolution over the past 30-some-odd years since we first started it. Vint and I were very fortunate to be there at a time when this was all virgin territory and we pretty much had free rein to go try what we wanted. It's hard to believe that we had so much free rein back then. And if we can't solve the international problems, I think if Vint and I only had the ability to live forever, we'd probably volunteer to jump back into that role again. But I think that's not in the cards. What we did do was spend quite a bit of our time over the last 20 years systematically working to get government out of the business

of running the Internet. And to this point, there's very little that's left that has any direct government tie. It's mainly the private sector that is operating the Internet today. I think it's, if anything, surprising that it works as well as it does, given that there are so many contributors to this process from all over the globe. You might ask yourself what example is there in history where you've had literally so many parties not directly collaborating with each other, but collaborating in a very broad context that's allowed a complex system like this to evolve over so many years. And hopefully it will in the future. There are so many issues that we need to deal with in the Internet that I find it strange that we're having so much focus on ICANN. I understand why the focus is on ICANN. But I want to sort of give you a larger view of things as I see it. One is how little time and energy we are spending on focusing on what's going on in our computers directly. I think that we all know that there's a lot of spam. We all know that there are viruses. We know about lack of security. But wouldn't you all like to know what's going on within your machine a lot better? To have the same notion of what's going on in that environment with regard to everything else in the world that you care about? Most of us are probably just unaware of a lot of the details that are going on in the machine, unless you have some kind of software that occasionally will block something, and it may not even tell you. There's been quite a bit of work on developing something called a clean slate Internet. And the arguments that are made for that have always seemed rather strange to me, that is, well, we've got too much spam. We need a whole new Internet. Or too many viruses. We need a whole new Internet. If anything, the Internet has been working too well at getting all this spam and viruses around. We don't need a new one. We need to figure out how to deal with those issues. If we had a solution to those problems today, we could probably do a pretty good job of figuring out how to implement them on today's current Internet. That doesn't mean that we won't see architectural ideas in the future that will need to be evolved. I hope we will. But there are various ways that that can be explored. Now, the DNS happened to be one choice that was made relative to the Internet. The thing that's critical inside the Internet itself are IP addresses. That's what allows packets to move around the Internet from one place to another. The choice of the DNS, which we made back in the mid-1980s, was designed by some other folks, Jon Postel, Paul Mockapetris, and others, was to make it easier to deal with IP addresses so you didn't have to remember numbers, you could deal with something that was more semantic. You can imagine other ways of dealing with the Internet today that don't require that at all. I hope ICANN continues to flourish going forward, but not for the reason that so many people have expressed. Yes, it is critical to the management of the DNS and IP addresses. I'd like to see that continue. But the reason I'd like to see it flourish is because it's one of many options that we have, not because it's the only one. The efforts to try and bring it under the control of some organization, whether it's the U.N. or a multinational setting, has largely been because people think it's the only one. There is an organization called the International DOI Foundation, it's headquartered in Geneva and the U.S., that deals with a very similar thing that ICANN does in the world of publishing and information access. It's got a registration system. If you look at it, carefully map it against ICANN, you'll see very many strong similarities. It's never come up here. And, yet, if somebody were to say that the IDF should come under the UN, I would say, why that one? And why any particular one, especially if we have lots of alternatives in the future, which I hope we do. The Handle System, which I've talked about much in some of these meetings, is such another alternative. And I think that, you know, even though I've been directly associated with that, my point in bringing it up is simply to point out, there is another one powerful alternative that we might use. This is about managing information on the Net, dealing with the objects directly rather than routing. It's been very widely used. There is something like 30 million objects that the International DOI Foundation currently deals with that system, totally independent of the

DNS, totally independent of ICANN. I hope we see many more things like that evolve in the future. So I want to emphasize that the software application side of it is really where we need to put significant focus going forward, to invent new capabilities both in terms of how the functions work and what are the critical infrastructure requirements that they need, and that there are many, many more important issues to focus on, in my opinion, and that if these alternatives develop, as I surely hope and expect that they will, then time will show that we don't need to place so much attention, on any single organization, whether it be ICANN or any other one. And the real future of the Internet is in all the innovation. And that's where my hope is, that we let it flourish and we do it in a cooperative fashion that allows multistakeholder participation from all over the world.

ALAIN AINA:

There's some confusion when you start associating IDN with content. I think we need to separate them. In my country we realized that we didn't have enough content, particularly in local languages. Efforts are now being made to improve local language content. The deployment of IDN will accompany that. But local language content comes first. Another point is how the current structures could be approved in order to manage the legal and technical aspects of critical Internet resources. I think it's increasing awareness that all of these aspects are relevant to all of us as users, governments, private companies, or industry, whatever. The resources are of importance to all of us. When you speak of respect for privacy, this needs to be considered by all of us. I don't think we should focus only on the improvement of ICANN or other structures. What we need is local and international cooperation.

PETER DENGATE THRUSH:

Ten days ago, I was elected as the new chairman of the ICANN board. I know this session is not about ICANN and critical Internet resources are much more than ICANN. But there have been a number of specific questions directed about ICANN. The new leadership of ICANN will continue to be open for discussions. Absolutely. Here we are. The commitment remains the same, to the White Paper principles, to industry-led, self-regulated, bottom-up, transparent process for the coordination of the Internet resources. We heard also about convergence, in particular, with the GAC and the ITU. First of all, we are very keen on working more closely with the GAC. We are trying to strengthen the processes of the GAC within ICANN because of the commitment we have to the contribution governments can make to the ICANN process. Milton challenged the idea of whether governments should be in ICANN at all. At the moment, that's a question for governments. All ICANN institutions are built from the bottom up. And the governments have expressed an interest to take part in that fashion. If and when governments decide they no longer want to take part in the GAC, that will be up to governments. But while they want to take part, the GAC is the place for them, and we want to make that work. Convergence in relation to the ITU. Yes, absolutely, we look forward to working very closely with the ITU and with all other institutions involved in this area. I want to disagree with Milton that ICANN does not want to be talked about critical Internet resources at the IGF. We do. We're here. We've supported the creation of the IGF. We're participating in it. And we have no difficulty talking about what we do here or anywhere else. We look forward to this kind of debate. That's our commitment to the bottom-up principle. We need to hear from everybody. We need also more multilingualism, as Raul has proposed. At the last ICANN meeting ten days ago, in Los Angeles, we had for the first time at an ICANN meeting people standing up and being able to speak in their own languages. We had people speaking in Spanish, French, Chinese, and other languages. Carlos made some very interesting proposals. I'm not going to use his metaphor, but this are interesting suggestions about restructuring for

ICANN. Under our bylaws, we have a very rigorous self-examination process. Every three years, every part of ICANN undergoes a serious review. And I invite everybody to contribute to ICANN and to take part in those processes for rebuilding.

ULYSSE GOSSET:

Could I ask you one more question? What do you expect from the midterm review by the US Department of Commerce?

PETER DENGATE THRUSH:

I hope that everybody who wants to participate in that will do so. The first part is a call for comment. We have invited members of the community to contribute. If there are things that you think ICANN is doing badly, please, say so. We will not improve unless we get that feedback. But, of course, if there are things that you think we are doing well, and there are many things that I think we're doing well, then it would be appropriate that the Department of Commerce know that as well. I'm not able to predict the outcome of anything, let alone JPA reviews. But we think it will be a further step in the evolution of ICANN.

From the floor:

What about the role of At Large Membership in ICANN? We need a vision of an Internet which is not dominated by some commercial or political groups.

CARLOS AFONSO:

We do have channels within ICANN for participation. One of the spaces for civil society organizations is the Non Commercial Users Committee (NCUC) in the GNSO. If anyone wants to participate, there are channels. And there are the regional At Large Organisations (RALOs). I would really encourage people to participate through these channels as well in the ICANN process and discussions.

BERTRAND DE LA CHAPELLE:

I'm from the French foreign ministry. Just two remarks, one to respectfully disagree with Milton, who basically attributes the delay in addressing issues to the participation of governments. The other comment goes to Juan Fernández and convergence. Actually, what we're seeing is not a convergence of organizations, like one overtaking the other by a Darwinian process. What we're seeing is the convergence of methodologies. The reality is, that a multistakeholder principle is spreading in any kind of entity or any organization that has to deal with Internet matters, as the TCP/IP protocol has spread around technical networks 30 years ago. What is happening it's a convergence towards of sort of multistakeholder protocol that we are here all trying to elaborate. No one has the final solution. ICANN is the first experiment. It is still imperfect. IGF is another attempt to move forward. This principle which includes the equal footing of actors in discussion, policy development and decision-shaping phases of issues is probably the most fruitful thing that came out of the WSIS. Just for Carlos, the metaphor that you were using, I hope it doesn't mean that you intend to terminate the patient and that basically you're mostly recommending to address the issues bit by bit and function by function.

VINT CERF:

Just one observation, a very important use of a word, Bertrand, you mentioned the term "protocol." And interestingly enough, you used it in its original meaning, which is a protocol for political interaction. We took that word from the political process and used it

to describe what the computers were doing with each other. Your observation that this multistakeholder thing is a protocol in the most literal sense is very important, because we now have to fashion it and figure out how to make it work.

MILTON MUELLER:

We can't make much progress by talking about governments in the abstract. The delay in the WHOIS is not caused by governments. It's not caused by the lack of governments. It's caused by a particular government, if you know what I mean. But, to be a little more constructive here, it is a bit of a stretch to talk about bottom-up processes and say that, civil society advocates are on equal terms with the GAC. Any government can walk into our meetings and talk with me. But I cannot go into a GAC meeting. It's not a problem with governments. It's a problem with global governance: Bringing governments into ICANN as a so-called advisory body, you don't solve or erase the geopolitical conflicts that can prevent governments from acting on a global basis. You can't treat them as simply another set of free-floating stakeholders who enter into this process freely and willing to negotiate agreements. What you're doing by bringing them into GAC is just reproducing all the geopolitical conflicts that already exist. And the point is, ICANN was created as a global governance agency to transcend those jurisdictional and sovereignty problems. So whatever relationship between governments and ICANN should be, I don't think the GAC is the right model.

LESLEY COWLEY:

I don't agree that just because we don't agree on things the structures need to be changed. I think that means we need better dialogue and better cooperation. I think we need to recollection that what we're talking about here at the IGF is an experiment. It's an experiment in multistakeholder participation. I would expect it to be hard. But we all share views and we all have opinions. And that is part of the benefit of this process. And to respond to Everton's question about how can we improve the present structures, I think we can improve by participation, and I think we can improve by more dialogue and more coordination at the national, regional, and international levels.

RAUL ECHEBERRIA:

Enhanced cooperation we talk about so much has improved dramatically in the last years. The whole WSIS preparatory process with the involvement of Internet associations and organizations gave us the opportunity to discuss issues in different environments. That was a good, an important step forward. Now we have contacts with governments and we have activities which are jointly organized. LACNIC is a good example. Policies have been jointly developed and adopted. It's not the structures which have to be changed. The change stems from a different attitude all of us have. And the level of cooperation among the stakeholders has increased enormously in recent years. And this is the route we have to follow, and not necessarily do we have to change the structures. And if they have to be changed, the answers to the question, which structures to change, the changes that have to be done are those that will be agreed upon by all, where we have a consensus according to the present participation processes.

JUAN FERNÁNDEZ GONZÁLEZ:

Everything we have heard so far tells us that everything is well in the world of the Internet. And actually, in the Internet world, not everything is well. The Internet reflects the world and the conditions of the present-day world. Those who have more access to the Internet are those who have access to more wealth in the world. The poor in the

world are the poor in Internet access. Those who do not have voice in matters of the world are also those who do not have voice in issues regarding the Internet. So I do not believe that the evolution of the Internet has been fully progressive. Let me give you one example. The international connections costs to the Internet has evolved due to historic reasons into a model that is totally non-equalitarian, in which the poor countries are those who have to pay for the cost of the connection to the Internet. This is an example of how evolution not always leads to the desired results. There must be a public policy intervention, led by governments, with the full participation of the other players. We cannot forget that there are different development models and we can not make the market as the boss for development. In Latin America, in the past 20 years, this has been a true disaster. There must be one policy, there must be one development strategy. And the Internet must be part of this development policy. Together with access to the Internet, there must be access to drinking water and we must have literate people.

From the floor:

I am with the conference of NGOs (CONGO). Among the stakeholders here I think one is missing. We have heard so often about electricity and power. Why are the actors who are really providing this not on the table?

From the floor:

I am from Pacific Technologies from India. I'm afraid in the kind of preoccupation we have had with ICANN, we haven't quite covered critical internet resources which could be more at the regional or national level. We have covered things from a micro-level, from DNS root servers, IPv4, IPv6, and all of that. But proliferation of local broadband networks and ISPs, datacenters, PCI, security, we have really not had a chance to talk about anything like that. Coming from a developing nation, I can tell you it's vitally important that everybody understands the importance of these measures at a local level to take the Internet to the masses. The one other thing perhaps that we could have talked upon are new technologies like Wi-Max which would make all the difference in a large dispersed country like India.

ROBERT KAHN:

I really sympathize with all the concerns about getting more equal distribution of technology. Wi-Max is one interesting possibility. I know there have been many discussions about the economics of various choices whether you could really put fiberoptics, which can handle more bandwidth, in versus wireless, which is actually more constrained, at least at any point in time. In principle, there's infinite bandwidth, but in practice, multi-path and other considerations play into that. So I am very sympathetic to the point that you make here. Also getting into the point that Juan made before, you ultimately get into the decision about what's the best way to make progress? Do you do it through top-down organized structures or do you do it through bottom-up kind of processes? And I think there are some things that just work better one way and other things that work better another way and not everything fits one model. When you come to things that are in the public sphere, you often get conflicting issues, and that's why you end up with rules and regulations about health considerations, you end up with rules about clean water, and food issues and the like, because no one organization can guarantee those across the whole spectrum. I think this is going to be a continuing discussion. I don't think it's going to be resolvable by the answer is X or Y. Any system in which you need to make a decision has to have a mechanism for enabling a decision to get made. And inevitably, if there are disagreements, some parties will be disappointed and some others won't. And if you

have an ideal system, you get a balancing of these things over time. Benevolent dictatorships often work well, which is what we had with the Internet for the first ten years. But I think we're beyond that at this point. And these issues will be with us going forward.

ULYSSE GOSSET:

I would like to conclude now remind everybody the sentence of the Brazilian writer who said that the future has been invented to be changed. And that's exactly what we are going to see.

PLÍNIO DE AGUIAR:

Thank you, Ulysse Gosset, for another special mention of Paulo Coelho, the Brazilian author. This was an adequate quotation. We would like to thank all participants for the excellent session we have just had. We have achieved to fulfill our mandate, which was to discuss these issues of the topics of the technical aspects, the core of Internet governance, which will contribute to the other themes which are closer to the public policies of each government. This is a very important cross-cutting issue. We discussed the issue of the Internet governance models. We have even submitted some methods how to get there. The multisectorial aspect of ICANN was emphasized. Representation by government and regional participation. Different views were brought up regarding the role of governments, if it is contemplated in the ICANN model, according to the results of the summit. We also debated the possibilities of internationalization and restructuring of ICANN and the need to be independent from any government. It was concluded that it is necessary to have the presence of governments in specific functions, drafting public policies. And this is due to the fact that governance is multisectorial. It was also stated that ICANN can expand the ongoing efforts to cooperate with governments in carrying out their attributions regarding Internet governance. It was acknowledged that Internet governance mechanisms, including ICANN and IGF, are in evolution. Technical aspects were discussed, such as the transition of IPv4 to IPv6 and risk of rupture of the integrity of the network, the need for a well-planned and cautious transition. It was also discussed the evolution of the network and the expansion to higher speeds. Difficulties in the management of routing tables was discussed, among other issues. As a conclusion, we have verified that the diversified content of our debate today, as well as the participation of the public, has demonstrated the interest that this issue raises in the international community and the need to go deep into it. There was a consensus regarding the evolution aspect of the Internet and there was a need for the governance mechanisms to respond to the demands of efficiency and legitimacy by the international community.

#### 4. Access

**Session Chairman:**

- **Helio Costa**, Minister of Communications

**Moderator:**

- **Richard Sambrook**, Director, Global News Division, British Broadcasting Corporation (BBC); Vice

- **President**, European Broadcasting Union (EBU)

#### **Panellists:**

- **Sylvia Cadena**, wilac.net, Colombia
- **Valerie D'Costa**, infoDev, the World Bank
- **Mouhammet Diop**, CEO, Next.sn, Senegal
- **Roque Gagliano**, Chair, Latin American IXPs and Interconnection Forum; ANTEL Uruguay
- **Anita Gurumurthy**, Executive Director, IT for Change, Bangalore
- **Mike Jensen**, Independent consultant, Johannesburg
- **Jacquelynn Ruff**, Vice President, International Public Policy and Regulatory Affairs, Verizon, Washington D.C.

#### **Discussants:**

- **Rajesh Bansal**, Nokia Siemens Networks, Gurgaon, India
- **Hökmark Gunnar**, Member, European Parliament
- **Radhika Lal**, United Nations Development Program, New York City
- **Sam Paltridge**, OECD
- **Maui Sanford**, Pacific Islands Telecommunications Association President
- **Johan Wibergh**, President of Market Unit Brazil, Ericsson

#### **HELIO COSTA:**

Ladies and gentlemen, good morning. I am honored to participate as a state minister for communications to participate in this meeting, which, since Athens, represents an exceptional opportunity for us to discuss very important issues related to the Internet. What makes the IGF a different forum is the fact that here, the forum is open to all. No organization, individual, or national state is more important than anyone else. And this couldn't be different, because cooperation and participation are precisely the best we have in the Internet universe. One of the most fascinating features in the word wide Web is the fact that the Internet was made and became so powerful precisely because it is a substrate for global cooperation via greater facility in communications, and for representing a privileged space for collective intelligence, and a reservoir of human knowledge. Only this time the library of Alexandria is fireproof. The democracy in this program should be an inspiration for the building of technological, economic, and social scenarios that will be more balanced in the Internet. But we have still a lot to do. Even though there have been significant efforts by governments and companies to reduce the digital gap, differences still persist in access to information between developed and developing countries and between the rich and the poor. We still have differences in terms of access to the traditional forms of access of information and communications, such as newspapers, radio, and the telephone for certain social classes and regions of the world who do not participate in this effervescent world of the Internet, this evolution may seem threatening, because it is another unknown and therefore something to be mistrusted. We are here, therefore, to discuss these inequalities, to try and find

solutions for the infrastructure, legal, and regulatory bottlenecks which have the power to include or exclude citizens of the future. And this future will be better if all can have access. As a means to start the discussion on access, I would like to recall that all of this infrastructure in communication and information is stimulated by governments. Certain companies need to be at the forefront of innovation, and they would like to increase their cognitive capacity, their autonomy, and the capacity of interaction. For everyone to benefit from this evolution, I understand we have to assess the issues related to Internet access. And between them, I would like to enhance the development of communications infrastructure. The scenario in telecommunications is of the responsibility of private players and besides contract tools forcing them to universalize their services, especially wide band. An environment of wide and fair competition is essential for a larger number of people to be included. And in this sense, the existence of efficient regulatory tools, such as the duty to separate Net elements are very powerful tools to stimulate a reduction in access prices and for the improvement of better services. Likewise, we are aware of the fact that the availability of infrastructure must come together with low-cost access solutions. Very often, access, shared access solutions are more appropriate. Other times, individual access will allow those who are excluded from the information society to have contact with the Internet world. In Brazil, the program originally called "Connected PC," which consists in a package of services for Internet access at low prices, together with a reduction in the prices of data processing equipment, allowed for an increase in the number of Internet users. We have around 20 million users right now in the country. We're also testing all the alternatives of low-cost equipment for students in public schools in order to include the youngest Brazilian citizens in the information society. I am certain that all governments are now struggling to build sustainable models and programs of access to the Internet for their citizens. However, I believe for us to be even more successful, we have to think about the level of international interconnection costs. We need to find solutions for the routing of Internet traffic to be increasingly close to the people interested in order to reduce prices that most of the developing world is forced to pay. These costs are becoming more significant to the extent that the world voice and data traffic has been increasingly transferred to IP networks. Apart from the impact on culture, on society, and on global economy, issues related to Internet governance become even more relevant. Next-generation networks and telephony operators at the same time as they all expand the offer of services to consumers, turning the separation between services and technologies a more complex reality, then everything will become data packages. And these new technologies represent huge challenges for developing countries, since very often they do not have points for traffic exchange, and this burdens access to Internet excessively. This is why countries may have access to financial and technological resources that should enable them to build their own links, the so-called NAPs or network access points. I give you an example. The Internet Center in Johannesburg, according to a report from the ITU, promoted savings of \$2.5 million in 2005 with the implementation of an access point in the city. One point I consider of utmost importance is the use of the whole existing technological potential to expand the offer of services to citizens, joining coverage and bandwidth in reasonable amounts. For that, we have to do everything possible for scarce resources, financial and natural resources to be used fully for the diversity of technologies and contents. Greater offer of technologies will bring about a reduction in prices for the end users. In Brazil, we are working to create a vast public network of high-speed to serve public schools, hospitals, health stations, police stations, and community associations. In the next three years, the whole of Brazil will be connected to high-velocity Internet. I am certain that our speakers discussants will raise other points that are very relevant in their discussions. Finally, I would like to say that the IGF is the expression of all of those who wish to see the Internet develop in

all corners of our planet. This is why its topics are so important. Each IGF discussion brings hope to the new reality. We know that the building of a more balanced world will not be easy. And I hope that this second IGF in Rio de Janeiro should represent a step forward towards building a better reality.

RICHARD SAMBROOK:

Thank you very much for those introductory remarks. I'm the director of the BBC's world service and global news channels. And I'm going to be moderating this session on access. To give some focus to this discussion, we had a couple of proposals. Firstly, perhaps we should bear in mind who might be the next billion people to be connected to the Internet. How do they differ from those who are already connected? Probably less wealthy, they probably have different kinds of content needs. There are certainly more challenging connection issues. Who are they and what is needed in order to bring them online? Yesterday's workshop on access suggested we need to look at this issue from the demand side as well as from the traditional supply side. So I'll seek to manage the discussion to focus from those two different perspectives. A question of supply encompassing regulation, law, policy, competition, capacity building and so on, and perhaps the question of mobile versus computers. And on the demand side, issues of cost, ease of use, relevance of content, access perhaps for the elderly and those with disabilities, questions of language, and the crucial link between access and development.

MIKE JENSEN:

To focus us on this area of access, I believe we need a very clear perspective of what we need and how to get there. So for me the goal would be affordable universal broadband: Affordable for the next billion and universal in terms of complete coverage across the world. I have five things on my agenda: Number one is more competition and innovation in the Internet and telecom sector then it comes much more backbone fiber, more effort to build demand, especially by national governments to build useful local applications, improved availability of electric power and better indicators for measuring progress. In the majority of developing countries we still see long-term monopolies, duopolies or cozy cartels in key areas of the markets such as international gateways or mobile sector. The regulator regime really needs to change as fast as possible to allow more competitors, especially at the local loop level and including mobile sector. There is a consensus emerging now that we need at least four competitors in the field to have real competition that will drive down prices. Any less than that, you can see they collude together and keep prices high. For example, in South Africa, we have had three operators now for many years, and the prices have remained pretty much static over the course of that period, and the introduction of the third operator did very little to reduce prices. At the same time, there's also a growing interest in more innovative models for service provision. Particularly community-owned service providers. And this range is from municipal fiber to cooperatives running mesh wireless networks. So for national policy needs to allow these types of initiatives to emerge and should not just focus purely on commercial, national operator models. Part of the way of achieving this is capacity building of regulators, competition boards and national policymakers. We need this to help them to understand these issues and to help ensure they have sufficient political will for their enforcement. I think the need for this is well illustrated in two other areas, which keep costs high: Interconnection and number portability, particularly in the mobile sector which is becoming more and more important for providing Internet access. Here it is much too common to see operators charging high tariffs for connecting to other operator networks, and generating big profits on the back of artificially maintained high interconnection rates which do not reflect the actual cost of

interconnection. Similarly, without number portability there can't be any real competition in the sector because people don't want to change their phone numbers, and so the operator has a captured market, and can charge high rates. The operators have often opposed these regulatory changes or any regulatory or policy involvement in this area, and argue that number portability, for example, is unnecessary. And many regulators and policymakers have accepted these arguments because they don't have the capacity to dispute them and there are very few consumer watchdogs working in this area to sensitize the public about these issues and create political pressure. In the area of better national and international fiber infrastructure, there's a great need to get away from satellite links for international connectivity. This is due to the high construction and launch costs for satellite which inherently cannot provide enough bandwidth at an affordable price. And furthermore, satellite does not provide sufficient quality of service for virtual private networks or streaming interactive multimedia services. So part of the strategy is to look at new models for national and international fiber deployment. In particular, not to treat backbone infrastructure as part of the local loop service providers infrastructure. I believe it is a public good in the same way roads are, and should be deployed using open access models which separate retail service competition from public backbone service provision. The other part of the picture here is to improve the coordination of infrastructure roll-out. New roads, rail, electricity and gas pipelines should all have a fiber component. Development finance for these types of infrastructure projects should be conditional on including fiber in their deployment. In the area of increasing demand, building useful online government services in local languages for the bottom of the pyramid should take place in concert with infrastructure development; otherwise, the infrastructure will not be used to its full potential, or justify the cost of its deployment. In the area of improving access to energy and electricity in particular, this needs to happen also in concert with telecom infrastructure deployment, and content development, because there are many areas that don't have access to electric power or it is unreliable and costly. And finally, to improve policy decision-making around these goals, we need to have better and more up-to-date indicators of progress. Currently, few developing countries have good national indicators of Internet uptake, especially disaggregated by agenda or by geographic area within the country. In addition, most supply-side indicators rely on reporting by national operators, and this data is often two or three years old, which makes it very difficult to conduct any reliable, realistic, rapid response decision-making. We need to adopt the use of more up-to-date Internet metrics such as autonomous system numbers, domain names, and Internet protocol addresses.

#### ROQUE GAGLIANO:

I am coming from ANTEL in Uruguay. I am currently the coordinator for NAPLA which is the regional Internet Exchange Point (IXP), mainly for Latin America and the Caribbean. This year I also chair the connectivity working group at the ALAC's 2007 Working Group 1 initiative. My main focus is going to be talking about regional connectivity and exchange point. Internet transit cost is one of the main problems for developing countries. Not only the cost of the Internet port itself but also the cost of getting to those ports by transport. Particularly in the Latin America region and the Caribbean, ports are basically located in the United States and operators need to pay 100% of the cost of getting to those ports, particularly, for example, in Miami. IXPs are meeting points where operators, content providers, and other providers who have an Autonomous System Number meet to exchange traffic. Basically, if I have data from my server to your customer, the data goes straight from my network to your network without going through those expensive transit points. The benefit of this model is that it reduces the cost of connectivity, improves the quality of service by reducing the delay. Also, IXPs are a

meeting point for critical infrastructure such as root servers, and the natural place to host content providers. Please remember that, when we talk about the cost of transit. Content provider like YouTube have around 10% of all our traffic so it's going to be very beneficial if you become host of that content locally. We can say also that the IXP is the place where demand and supply meets. We get all the local traffic local. But what is the next point? We need regional connectivity. When we talk about connecting different countries, we are talking about connecting people with similar content. People in Uruguay download similar music, probably, than people in Argentina. They watch the same soap opera. The activities are very similar. The same is their profile in the Web. So having a good regional connectivity just makes sense from all the perspectives. What problems we are facing when we talk about regional connectivity in the Latin American? The first problem that we face is the cost of the regional transportation. Getting to the international cable systems is more expensive than actually the transportation to the last point in the US. What we face here are de facto monopolies in different countries. The second problem are country regulations when we try to host international organization in IXPs. Particularly some IXP are self-regulating, avoiding regional companies to get there. A strong IXP is going to be the natural place to meet between operators from different countries, and that's something we need to explore.

VALERIE D'COSTA

InfoDev is a multi-donor program which is housed at the World Bank. InfoDev focuses on creating knowledge on ICTs for development in three important areas. Firstly access for all to ICTs. Secondly, how do we mainstream the use of ICTs better in critical sectors such as health or education. And thirdly, incubating small and medium enterprises focusing on creating ICT businesses and enabling ICT-enabled innovation. The access agenda is not new but unfinished: Cost, coverage, services, content. But I would like to add three points. Firstly, we should think about what the user interface device should be. Many roads lead to the Internet. I was told that there are 15 million computers in India, and 225 million mobile phones. Two weeks ago when I was at the Connect Africa summit in Kigali and I heard that in the next 15 minutes, 15,000 new mobile phone subscribers will be added to the 3 billion existing mobile phone subscribers, the vast majority of them in the developing world. There are rural access initiatives like Village Connect or Village Phone. If I could advise the people who manage large universal service funds for their countries and who are looking for new ways to spend those monies on meaningful initiatives, I would say to them let's look afresh at the promise of mobile and wireless technology. I would say to them, let's think about spending some of those funds to support the many innovative grass-roots solutions which are mushrooming out there rather than just telco led roll-out plans. My second point is let's engage the users better. One of the learning points about better serving the next billion users is to listen better to what they need. A lot of discussion centers around how to get broadband connectivity to the underserved. But less attention is being paid to what those villages will use a one megabit line for. We must start by asking ourselves what the critical Internet use issues are in underserved communities, and then address ourselves to how ICT can make those problems less intractable. How it can save, for example, a two or three day journey to the nearest town. How it can help a citizen better engage more effectively with a local or their municipal authority. How it can help a small business to expand its market reach, or its distribution network. How it can help new entertainment and information possibilities open up to those citizens. My third and last point the causal link between ICTs, technology, Internet and development. InfoDev is a donor funded program and my donors ask me, as they ask many of you out there, how does access to the Internet help access to clean water, to a road or electricity? It's often a tough question to face, especially for true believers like many of you out there, and for

me, who have spent our careers in ICTs. But similar questions come up in cabinet meetings in developing countries, and within ministries in developing countries. To justify why these are important investments to make and put the political will behind, I think these questions keep us honest. Info Dev is keen to undertake some analytical work going forward on the development impact of the Internet and ICTs. How we can best illustrate why ICT and Internet access continue to matter, demonstrate its transformative effect on society and business. And show why ICT skills development is absolutely critical to help developing countries participate more fully in a global knowledge economy and society.

SYLVIA CADENA:

I am very honored to be here to represent the people who are working in the field of community wireless networks. The wireless technologies such as UHF and others want to share resources to operate. The design of these technologies and the projection of them entails a cooperation strategy that goes beyond technical knowledge and favoring education processes. This is key for any initiative and the wireless networks are no exception. The translation and the promotion of local languages and local customs which will clarify important aspects of culture enables communities to use networks, and they can expand them according to their need and to promote and develop the skills of men and women in rural zones, and ensure that they remain those areas so that they can ensure the continuity of any national network regardless of the platform chosen. Wireless technologies call for greater applied research to develop them and to test integrated solutions for low cost which cover practical aspects such as recycling and the building of antennas, calibration and alignment of equipment, and the development of applications for service development and learning management tools which enable the development of sustainability strategies according to local context. The wireless technologies for development call for a broad regulatory integrative facility, and there's a great complexity and high cost. Integration processes apply to different organizations and regulations and procedures, not only institutional but within each one of the involved organizations. There are four areas where reforms are needed. First review the certification so that communities should not be subsidizing the entry of the markets that will charge these certification costs. That should be dealt with by the companies which will derive economic benefit from them. Secondly work towards regional integration to allow for the management in frontier areas, so that communities which share the same culture can be integrated. Third communities should not be dealt with as the exception to the norm because they are in the rural zones. They should be the foundation based on which an outreach and regulatory mark should be done. This is projected from the structures of the cities and they should be adapted to rural areas, when in truth more than 70% of the population lives in rural areas. And lastly, services with greater demand in the rural areas, such as voice and messaging services and emergency communication for disaster occasions should be ensure and supported as a right that should be more important than any economic interest.

MOUHAMET DIOP:

I am a consultant and work in helping Senegal and Africa, government or business to integrate new infrastructure, to deepen the penetration of the Internet and to expand use. I will give you statistics that will surprise you. We are speaking of one percent of world users of the Internet. There is only 3.6 Internet penetration in Africa. Africa has 14% of the world population but less than 2% Internet users. We have less than 2 % of domain names and less than 2% as regards Internet content. So we have the 2% syndrome. We talk about access, but it's obvious we should ask ourselves, what can we do to go beyond this 2%? On the national level something had been done. ISPs found a

response in the model to create the infrastructure to a certain extent. The number of users has increased. But on the regional level we do not have a consistent response because there is what we call the lack of understanding of the global mechanism. What can we do that we can create infrastructure that will break through the transit model and that will place Africa in the peering model with the rest of the world. The EU has quickly understood how a continent can get structured in order to make use of the Internet not just as a multitude of Internet Exchange Points (IXPs). This is international peering. You are connected globally and you pay nothing to anyone. We have 50 states in Africa. Each one pays connectivity because we are still with the individual focus. Latin America has the same problem. We do not really understand when we talk about private settlements and agreements for interconnections. The individual national focus without a regional focus will lead us to nowhere, because we're going to spend a lot of money and will not build infrastructure, which is needed. The second point is on critical Internet resources. We have more than 950 registrars for domain names in the world. You know how many there are in Africa? Just two. We do not understand the economics of this. We have to understand the mechanics so as to be able to balance out things. This economy which is more than one billion dollars is not only set aside for players in the developed countries. The awareness in Africa has to be built with the focus of economic intelligence. We need a new dynamic and the states have a role to perform. The third point is the adaptation of interface tools. In Africa literacy rate is very low and we are not concerned with the profitability of the interface. It's good to have a machine. But if the machine is not fit for use, do you think this person will have access to the Internet? No. Here you have the whole dynamics of capacity-building, developing resources, adapting and developing multimedia interface. If we want to use it for development, is not the technique for technique, but technique at the service of development. This is for health, for education, development of agriculture. And this is linked to the next question: How can we finance and fund all of this? We know this is a national responsibility, but it is also international responsibility. I believe that the issue of an international services fund is on the table. Financing is the heart of the problem. There are tools which are inefficient, and we should think about new sources of financing, and that there should be a new forum for financing of the information society and an operational plan of action so that the rural populations can have access.

ANITA GURUMURTHY:

Access and governance are inextricably connected. They are two sides of the same coin and part of the very critical agenda on human development and the Internet. We know enough now to be able to say that sustainable development is not about people's access to goodies, but people's control over systems of governance. Recent research on ICTs and development say social impacts of ICTs are no different from the impact ICTs had years ago on business. As has been said ever so often, computer-induced productivity was seen everywhere initially except in the statistics. This notion of productivity paradox in the adoption of digital systems in business is more than relevant to development. You don't see the impact only after years. You cannot invest in ICTs for development and begin desperately to look for results. The returns on investment that are so passionately sought through business models may never be realized. Why do I say this emphatically? Because I am presuming that the most meaningful ICT models for the poorest are not just about creating demand loops for individual users to pay, but models that address systemic and institutional change through ICTs. Demand cannot be generated unless the supply sets up a virtual cycle. It's like public libraries, where ICTs get embedded within systems, within public health, public education, governance, women's livelihood projects, et cetera, change towards human development and rights begins to happen in an almost unbelievable, exciting, nonlinear, and systemic way. And

since we have been told that there's no such thing as a free lunch, the question to ask is, who's to finance this systemic approach? There is a good inspiring submission to the IGF by the Council of Europe. The Council of Europe defines public services as a service provided by government to its citizens, either directly through the public sector, or by financing private provision of services. The term is associated with the social consensus that certain services should be available to all, regardless of income. The submission goes on to saying that this notion of public service value should help provide responses to many public-policy questions that arise under the IGF themes. This is a clear example where states have an essential role to play in providing a framework for the private sector to operate. The idea here is to see ICTs not just as commercial or business infrastructure, but also as development infrastructure, where the public aspect is separated clearly from the rest, just as it is in the case of public health or public education. Basic access calls for the essential role of the state in creating that comprehensive ecosystem which makes access meaningful enough. While public sector monopolies in communications can be legitimately critiqued in many developing countries, there is no basis to negate the role of public finance in these countries that in many ways has shaped what the information society is in the north today. But many governments of the north take a stance that seems to contradict this wisdom in forums like IGF, preferring to focus on privatization. They need to be taken to their logical policy ends. My last point pertains to access and community ownership. It is the nature and manner of the use of technology by communities that needs to determine infrastructure policies and frameworks of governance. So far, the business use of technology has monopolized policy frameworks and the development use has often been contorted as extended business use. The governance of technology, including Internet governance, derives from imperatives for development. Governance cannot be a pre-given into which development concerns are forced to fit. The poor may not have the time or the energies to understand the politics of governance, but they are indelibly impacted by the principles of governance. The most vulnerable populations of the world may not care too much about intellectual property regimes, but they do care about life-saving drugs. If a public goods to ICTs approach is acknowledged as enabling development and when the infrastructure design begins to look at more and more systemic uses for development, going beyond individual user-oriented conceptions, then the nature of Internet governance is bound to be different. Much here, of course, depends on the courage to set our agenda differently. We need to think of the 6.6 billion people in the world and not just the next billion.

JACQUELYNN RUFF:

The issues that we're dealing with is very complex. It's a puzzle that has many pieces. The one that I will talk about is the perspective from the company like Verizon. We provide Internet access, obviously, in the U.S. as a broadband provider. We're also a global backbone network, and we're an ISP. And sometimes we're the ISP that others are connecting with. Sometimes we're the small newcomer in a different market and we're looking for connection ourselves. There's been a lot of discussion even so far on the question of the relationship between supply and demand. And let me just throw out a few indicators of what I think has been major progress on the supply side. Since we gathered in Athens the international Internet bandwidth has risen almost 70%. Latin America was actually one of the fastest-growing regions, with a rate of 73%. Another way of looking at it is that broadband growth in the last quarter, the top ten countries for broadband growth included at the top of that list Indonesia, Vietnam, and the Philippines. And almost all of the others were similarly emerging economies. You have a significant increase in supply. You have prices decreasing. According to telegeography international circuits of the STM1 capacity dropped between 2002 and 2006 on the US

route to Brazil by 67%; to China, 75%; to Mexico, 84%. Those are real marks of progress. There's much more to be done. It's important to notice what is a-happening in the market. To a large extent, these marks of progress are the result of investment in infrastructure and services. The capital that is available to be invested today is truly global in nature. An important point is the policy, legal, and regulatory framework that will help draw capital to the areas, especially in the developing world, that need it in order to get to the next billion. A checklist from a perspective of a company like ours, includes transparent and stable regulatory environment; respect for the rule of law; openness to foreign investment; a commitment to encouraging competition, good licensing and spectrum allocation procedures and flexibility for innovative services. The classic one in the last few years has been the role of Voice over IP (VOIP) and the extent to which that is permissible, both as an important service in and of itself, and also as a driver for demand on the Internet access side. Important is also an environment that enables local developers to create attractive and useful content. But this is just one piece of the puzzle. Another way to look at the issue is to look at cost. What are the factors that affect the cost for Internet access? The way I look at it is the end-to-end connectivity. I usually would look at first whether we've got competition there. Five competitors would be okay. You have to look at the number and types of ISPs and whether there are Internet access points. And we have to look into routing increasingly closer to the user. Having more Internet Exchange Points within a country or region makes the connectivity significantly cheaper. That is also for a service provider in the market, because it can make it cheaper for our customers, it can decrease latency and improve quality. And it also can have the effect of freeing some of this international capacity for truly international uses rather than just being a way to get what really can be local traffic back and forth. We have to increase access within countries, within region and among regions. And we need the international facilities, the undersea cables, which are carrying about 80% of traffic or satellite. If we have competition in more and more of these, we will see prices fall, see more innovative services with better reliability, see more foreign investment in the sector, and all of these things in turn will have multiplier effects in terms of economic development. We see already some interesting models and best practices. Take India. There was a series of public-policy steps that introduced competition through different parts of the sector. At a certain point, when that wasn't working well enough, India chose to impose price caps or ceilings on international private lines, increased the limit on foreign investment from 49% to 74%. Then they launched the issuance of new international long-distance and national long-distance licenses, and took some measures to increase competition within the undersea cable landing stations, which was very important. During the course of this period, prices have dropped significantly. You do see more players coming into the market. And something that may have been driven in part by the local business stakeholder constituency who wanted that will actually benefit the country more broadly and other types of users. We heard a similar story about Egypt. There's been a real trend in that direction in north Africa and the Middle East, in south Asia, Southeast Asia, there are now, between the US and Asia and Southeast Asia, four major new submarine cables proposed, including one that Verizon's very involved with directly to China. Three are under construction in the Caribbean. There's a second one in west Africa. This is a further illustration of the trend on supply, and, therefore, the need to also focus on the demand that's going to fully utilize this new capacity.

From the floor:

I am from ICT for Change from India. My question is on this concept of the next billion. The WSIS declaration of principles in its very first paragraph talks about the inclusive society. You're talking of the next billion and the billion after that because we have a

particular model in our mind as to how this process will happen. And we are clearly looking at several years down the line for the last billion to get into the whole information society. How this will happen. In India, we have a scheme called the community information center scheme where the government in partnership with civil society and private sector is planning to have 100,000 centers throughout 600,000 villages within a two or three-year time frame. This is not the typical market-led approach, but a very innovative process of strong public drive and initiative to make it happen with support from other sections.

**RAJESH BANSAL:**

I am from Nokia Siemens Networks working in India on providing low-cost connectivity for local rural areas. The next billion is a big number. Lets go step by step. With the next billion, we cover folks who have less than about \$2 a month to spend as total cost of ownership for the telecommunications service. And if you look at it from a business model perspective, trying to get to a point where it is feasible to make an investment on which some non-zero return can be had, you have another benchmark. When your biggest problem for the day is getting food for the table or medicine for a kid, you are not really too concerned about having information bed flow to you at that point. So it's in this context that we have to look at many of these implementations.

**RADHIKA LAL:**

It's precisely because people are concerned with medicine and food for their kids that technology is important. And I think some of the new models is meshed networks, other forms of non-commercial kinds of organization which is complementary to the kinds of private sector provision that you talked about. I wanted to talk also on the supply side factor. What do you do when there isn't enough investment in that kind of undersea cable? Isn't one of the side effects of the success of mobile a lack of investment? And if so, who is going to be doing this investment in back haul?

**MIKE JENSEN:**

The success of mobile is probably more related to the restrictive regulatory environment around fixed access and, to some extent, around back haul. Generally, it's been microwave links and not high capacity fiber. There needs to be a kind of collaborative effort between government and the private sector to build these types of private backbone, back haul infrastructure. We can see a lot of the mobile networks now having developed national backbones which reach up to the borders of neighboring countries where they may also have operators. It would be quite simple for them to link up these backbones. If they can be augmented with additional finance from the development finance institutions and local government investment, I think we can see a much quicker growth of backbones. The other area, of course, is local authorities. Especially we are seeing this in Europe and North America now, taking a strong interest in municipal fiber. This kind of trend can take place also in developing countries. Municipal networks can also mesh together to create national backbones.

**VALERIE D'COSTA:**

The open access point is something that infoDev has studied quite deeply. Certainly in terms of countries that are playing catch-up for the international bandwidth connectivity and having that cable land, you then have to face the very important question of who owns that cable and the extent to which affordable access is given to those who don't own it. Quite simply, that is what the open access debate is about. This calls for a really fresh look by regulators and by policymakers and the political establishment in a

particular country, far more than a technical analysis, because the technical analysis is fairly clear of its benefits. When the rubber hits the road, the problem really is the fairly inordinate market power of the incumbent. And for them who say I have invested a lot of money and why should I give a free ride, as they claim, to the people who are going to compete with me. And you don't hear that argument only in developing countries. You hear it everywhere. I used to have the incumbent in Singapore shouting that in my ear because I used to be a regulator in Singapore. Regulators and policymakers need to sit down and figure out the value of open access models.

MOUHAMET DIOP:

There is a big dilemma in Africa. The network mobile telecom operators are already there they have their return on investment without any Internet projection. Their business model is they have their return on investment after 18 months, just on the telephony system. But they did not have any clue about the modeling and the tariffing they got for Internet questions. The tariff that have been defined on the cellular phone for Internet access is incredible. The second problem is the content. People use their mobile device to connect to somewhere. But to which site? No Web site has been developed using the mobile format environment. The device are IP enabled, ready for that, but there is no content. The industry have not developed the skills to have their Web site adapted to be connected using the mobile device. There is a need for a shift. Mobile operators have to understand the new Internet business and try to develop new tariff schemes.

From the floor:

In last 15 to 20 years in Asia, we have seen a dramatic change of economic development pattern among the countries. In 1980s and to the middle of 1990s, it was a generally-accepted notion that country with rather small population, such as newly industrialized economies, such as Singapore and Hong Kong, could enjoy very high economic growth rate. Whereas Asian countries like Indonesia and Thailand and countries like China and India had a difficulty to materialize high economic growth rate at that time. But around the turn of the century, this flying geese type development completely changed. Countries like China and India which hold tremendous population and national land started to show very high growth rate around the 8 to 10% per annum. And I believe that the penetration of the digital information network and the Internet played a critically important role for those large population countries started to grow at high economic growth rate. And yesterday, we heard that Indian government accelerate this process by developing several hundred thousand community Internet kiosks or centers.

From the floor:

I'll keep my question short. First one has to do with markets that are too small to sustain competition, what should we do, what is the right policy for that case. And the second one has to do with the possibility of regional cooperation in order to reduce aggregate cost for capacity.

SYLVIA CADENA:

In regards of competition and ways to maintain markets that are not big enough to keep the competition going that we are shifting to new paradigms and new ways of ownership of infrastructure that are more engaged with the way that communities worked and more engaged with their traditional ways of sustain themselves for ages. So I think that technology right now are kind of starting to reflect the way that people sustain their lives for a long time. That has to be nurtured and encouraged by regulatory frameworks.

Sometimes it's not the question if the regulator opens the spectrum, that, at least in Latin America, is free almost everywhere, but it is like all the processes and the practices that are related to that "free" thing are not free. And those are the things that are stopping this, that work is to be developed. Sometimes it's a matter of a regulation about electricity that is the one that is not enabling the wireless networks. Or customs that offers extremely expensive taxes to import new equipment that consumes low power and are recently designed and works better under extremely high temperatures or dust or things like that. I think that now that we are shifting ownership, we also have to shift the way the regulations are built and the practices involved in that regulations are built. They are coherent, and there is nothing like really free things when you have to go through all these processes in the middle.

MAUI SANFORD:

I am from the Pacific Islands. Around 65% of the population lives in remote rural area. Therefore, the cost issues of infrastructure is really high. For national communications distances can be 3,000 kilometer from one island to another. And of course when we talk about the Internet we need to be in an open world and be connected to the World Wide Web. That means another added cost, and usually it's on satellite. Coming back to the issue on competition and infrastructure, we are experiencing very funny situations. Some of them are successful. Some other might ruin some of the countries. Some initiatives are going about the traditional public service obligation that people have. It's their own thing, so let's do it ourselves, the most clever way we can. And in some of the ways, the people say, especially in some developing countries in the Pacific, okay, we are eligible to funding so we will have funding. But there is no coherent approach, and in some countries open competition, sometimes forced by funding agencies, doesn't work. There is not a perfect model. We need to learn more. Internet is a world phenomena that will not finish. We'll meet again in the next few years. The international community would really need to have a coherent approach to those small countries by not replicating only those big, theoretical models that can apply in bigger countries to the small economies. It can even ruin them on the long term.

From the floor:

I am from South Africa. What is it that we are trying to get out of broadband? Is it volume, or is it speed? And what is the incentive for players to share infrastructure?

From the floor:

Service providers like Verizon, when they update technology and databases ignore often rural areas and the hinterland but they concentrate services in cities better-quality services to cities, where they have better buying power. This is more profitable and the social responsibility is set aside.

JACQUELYNN RUFF:

In the U.S., Verizon is a national provider. We provide residential services of all sort, including broadband. We're building fiber to the home. And we are very engaged in providing services throughout to rural areas, as well as urban areas. In the rest of the world, we are mainly a global backbone provider. In some locations we are an ISP. And we also offer a business model services to large enterprise customers. We're not in the position at this time to be doing sort of rural connectivity to residential customers, which I think is what you're trying to get at. Nonetheless, you've raised a very important point. We need certainly universal access program and making sure that that is updated in whatever way is appropriate to the needs of the country. In the U.S. again, we

focused several years ago on making sure that schools and libraries had Internet connectivity. In some areas that are underserved, I do believe that you will have more of a public-private partnership that will be necessary in order to respond to those needs.

HÖKMARK GUNNAR:

I am from the European parliament, coming from Sweden. If we had been here ten years ago, we would have thought it was quite far away that it would be one billion today. It's fair to say that the development will go on very rapidly. We can see that on mobile phones. Of course, we need to go further ahead. But sometimes we are also confronting with the problems of poor and developed countries that are of a more general kind. But I'm thinking about another problem of access. We will be surprised by the change regarding new services and content that will require much broader and broader broadband than we are seeing today. And then we can have a another form of divide that is not the quantitative, but that we will a qualitative with some regions extremely good served and others with low quality service. What is the conclusion from that? It underlines the importance of competition and neutrality between different operators supplying and providing different services.

SAM PALTRIDGE:

Today future it's much less predictable. People are trying new things, they've liberalized the market. Take the example of Jamaica. At the turn of the century, they had less than five telephones per hundreds of inhabitants, now they have a telephone penetration rate which is in excess of many OECD countries, and they do so with a very low GDP per capita. It's because they have let private capital develop that market. So when it comes to Valerie's choice about water or communications, I would say governments will always have scarce resources. Let the private sector develop the communications market, and then, for Anita's point, let government come in with complementary policies, capacity-building, getting village kiosks etc. I think that's the way to do it. On the broadband point: Even in Latin America YouTube content is some of the most popular content. It's creating huge traffic. A lot of that traffic needs to be exchanged locally. So I'd like Roque and Mouhamet to comment on how we can get IXPs to those, about half the world's countries that don't have IXPs at the moment. And we need international connectivity with undersea cables and how we can get undersea cables to underserved regions like the coast of Africa that doesn't have that connectivity yet.

ROQUE GAGLIANO:

Sometimes you get people from countries where there are no IXP and they're trying to set up a new one. We had examples from Bolivia and Haiti, trying to set up a new IXP. And its not only about small ISPs trying to battle against the incumbent, its also to get the PTT on board. You have to get momentum without the PTT inside. That's also what happened here in Brazil when EMBRATEL would not connect to their exchange point. The second problem is the lack of a good neutral data center to set up the IXP. Basically, there's no data center infrastructure where to put your equipment. An interesting case has been in Nicaragua, where they set up the IXP in a trailer next to a non-neutral IX. In order to get to the trailer, you can get to any kind of access you want. So find an IX with good neutral infrastructure is very important. We do a lot of training on the technician side about PGP and peering, but not to the commercial people to understand the value of peering.

From the floor:

I am from Argentina . I agree that the most expensive part of access is the backbone,

the national backbone. In a city far from Buenos Aires, I know it is very expensive to buy national access for data and to create an ISP. How do you think we could solve this problem in the context of privatized companies where profitability is very important for the sustainability of these companies in the future and when we have a concentration of markets in large centers and the capital cities of countries and not in the far-away, rural areas?

From the floor:

The next billion users will be poorer than the present billion using the Internet. This is a challenge for private companies to create markets which will adapt to the needs of this new billion.

RAJESH BANSAL:

How do we have viable business models and situations where, for example, the cost of a backbone is much higher than people can pay for? We need new and disruptive business models to essentially play in this space. One topic which has not been touched at all by this panellist is that we all significantly underestimate the intellectual propensity of the next billion. We sit here and think we'll solve the problems. But the innovation is often in the remote areas itself. When you go into a remote rural Indian village and tell them about a very innovative solution of an Laptop for \$100 a villager with no, absolutely no, formal education, came back with a solution under \$50, which we are now using in other environments. So I think those are the kinds of things that we also need to bring to the fore in this whole context of innovation and new business models.

RADHIKA LAL:

One of the points that's been coming out, much like the early history of the Internet, in spite of the very dynamic role of the private sector, it's been local communities, it's been the public sector which underpins a lot of its development. I wanted to pick up on the demand side, that we don't just look at all the sort of blockages on the supply side, bringing the consumer, the citizen, back in. In that context, what is the role of the state in terms of looking at that side? We've had countries like Estonia, where access to the Internet as a right has meant very high rates of penetration, dynamic business growth. Those things don't have to be antithetical. It's possible to have a very strong empowerment and rights-based framework and yet create the conditions for strong private sector development. The minister from Brazil talked about the steps that his government has been taking in terms of reducing costs right through the whole system right down to the production of cheap PCs. Is that something that's also led to more dynamic investment? I'm just trying to say that different aspects where the public and private could be complementary and one could get a sort of rights-based plus dynamic growth.

ROQUE GAGLIANO:

Talking about the role of the government, we know that there's clear missions for the government when we talk about school, education, connecting hospitals, connecting police stations. But don't forget, on the government itself is one of the biggest customers. And through being a customer, it can also do policy not regulating the market, but also imposing conditions to buy. There are some countries that have a very good experience of government being customers of the IXPs, custom forms, etc, everything going through the IXP. If you're a government, perhaps you want to check, who are you buying your bandwidth from, what kind of condition you have, and why you

can or cannot run IXP and actually impose some routing policies.

VALERIE D' COSTA:

Is broadband just for the rich?

JACQUELYNN RUFF:

The first thing you have to look at is, are there regulatory barriers, particularly for new technologies, for wireless to be able to come in and be the alternative competitor there, are there any kinds of regulatory barriers? Second, are there other new technologies beyond the wireless ones we know of now that could provide the service and be disruptive. Third, the universal service access fund that we talked about earlier. Ultimately, it also may be that you have just got a situation where there's a market failure for some reason, and there needs to be a regulatory intervention. In Europe, for example, there were previously very high prices for leased lines or that kind of back haul. The combination of introducing competition and creating price caps was successful. Similar things were done in the US at some point before there was full competition.

RICHARD SAMBROOK:

Markus Kummer and Minister Costa will now summarize the debate.

MARKUS KUMMER:

The discussion confirmed what we saw in the preparatory process that access was clearly identified as the single most important issue to all in the IGF process. We are talking now about the next billion Internet users. I do recall that two years ago we had a preparatory meeting WSIS meeting in Rio when we were celebrating the first billion my friend Juan Fernandez from Cuba said, don't forget, there are five more billions out there who don't have access. I think we listened to this remark, and we are actually looking at the second and the third billion. We were also told that since Athens, much progress was made in terms of connectivity, just by market forces as they happened. The discussion also showed that there's no one-size-fits-all model. I think it was said that there is no perfect model as such, but I think there was a general agreement that an enabling environment needs to be put in place that includes a solid regulatory framework, the rule of law, and you mentioned the integrated regulatory framework that includes also electricity, taxation, tariffs. There was also a notion that market forces alone may not be sufficient, especially for creating access in rural areas. There was much talk about the need for innovative models for public/private partnerships, but also for a policy to be put in place, universal access policy programs, that force market operators to think about these remote areas. I think I saw a strong message that much remains to be done on the supply side. And the need for regulatory reform and for competition, innovations, and investment was underlined by many speakers. The appropriate policy framework clearly needs to be designed for specific situations, for specific countries, and they cannot be simply transferred from one country to another. There were many more technical details were emphasized. The particular issue of backbone networks was mentioned by many speakers, and this will remain an important issue. Some speakers suggested that opening up the market further was the appropriate way forward, while others focused on the need for public sector initiatives and the importance of open access networks. It was observed that access is also much broader than connectivity. The link needs to be made between access and development. And this was, I think, an important remark that we are not talking just about technology alone. We talk about technology in the service of development. There

was some discussions on the size of the market. If this country, the market, is too small to allow for competition. But it was also mentioned that regional cooperation can then offer the way out in terms of creating bigger markets. And in this context, the experience of regional IXPs appears to be a good example of the ways in which collaboration can help all users and reduce cost. A general read of this session is the importance of collaboration between governments, private sector, but also civil society, in the use of telecenters, for instance. Provide open access networks to stimulate demand, to help people in remote areas. And I think these partnerships are very much in the spirit of the IGF on multistakeholder cooperation. I think access will remain on the agenda of the IGF for many years to come.

HELIO COSTA:

First of all, as we expected, we had no controversy on the issue of access. Mr. Diop mentioned the regional focus, that without it, we will be led to nowhere, and it's true. We believe that the regional focus is absolutely important. He also said that financing is the heart of the problem that we are discussing here, at this particular moment. It is. It is the heart of the problem. We all agree with that. In Brazil we just had a couple of meetings in which President Lula is participating actively because in the next three years, before, we are going to have every single city in Brazil connected by broadband. And we hope to do that before Mr. Lula's term is off. It is important to notice that at the moment the Brazilian government decided to finance low-cost computers, we actually ran out of computers to sell in Brazil. We sold 1.5 million computers financed by Banco de Brazil or by the developing bank with a very low rate, which every single student in this country, even those of very low income would be able to access a computer. Without the computer, there is no digital inclusion. I would like to notice also that the unbalancing between international interconnection costs. This is going to have to be dealt in the future in such a way that will make it easier for people to use Internet anywhere in the world, especially in the poor countries. The Internet has no owner. And this is good. It belongs to the people of the world. So nobody is about to say I own it or I will do this or that. The governments must work to correct the distortions imposed by the market, which I hope that we are doing the right thing in Brazil, and other countries can do besides the same thing. And the debate on access cannot focus only on infrastructure.

## 5. Diversity

**Session Chairman:**

- **Gilberto Gil**, Minister of Culture

**Moderator:**

- **Chris Disspain**, Chief Executive Officer, .AU Registry; Chair, Council of Country-Code Names Supporting Organization (ccNSO)

**Panellists:**

- **David Appasamy**, Chief Communication Officer, Sify Ltd., Chennai, India
- **Monthian Buntan**, Executive Director, Thailand Association of the Blind,

Bangkok

- **David Dzumba**, Nokia, USA
- **Tatiana Ershova**, General Director, IIS, Russia
- **Adama Samassékou**, Executive Secretary, African Academy of Languages
- **Patrik Falström**, Consultant, Cisco Systems, Sweden
- **Ben Petrazzini**, Head, Institute for Connectivity in the Americas, Montevideo
- **Daniel Pimienta**, Director, Funredes, Santo Domingo

**Discussants:**

- **Maria Badía**, Member, European Parliament
- **Divina Frau-Meigs**, Professor, Paris III, France
- **Pierre Ouédraogo**, Intergouvernementale de la Francophonie, Burkina Faso
- **Caio Tulio Vieira Costa**, President, iG, Brazil

**CHRIS DISSPAIN:**

Welcome to the main session on diversity. We're very privileged this afternoon to have the session chaired by the Minister of culture, Gilberto Gil, and I will hand it over to him to make some opening remarks.

**GILBERTO GIL:**

Diversity became a political flag of present times. Stuck on the soil of struggle for social and cultural recognition, a substantive image of modern times, times with acceleration of flows and exchange systems. There is, on our terrain, where we are holding these flags, there are strata of different types. Resistance to colonialism, modernism, and from modernism to the pop aesthetics. From matrixes to modernism. The feminist struggles, the ethnic affirmations. The contra-culture schemes, the impulses of free culture, and also the new ideas that sediment everyday the spirit of freedom. In the liquid terrain of the Internet where we navigate, our subject on which this forum focuses, this flag is standing in the main mast of our ships. The issue for all of us is how to translate this flag into the design of the husks of our ships. How can we occupy this ocean with adequate ships for those who need to navigate? How can our technological devices and our navigation tools support aggregation of knowledges and collaborative contribution and an opening towards diversity? In this liquid world, it is as essential to combat piracy as to give free access to all, for all to benefit from this knowledge and these resources. The times require that our feeling of property should adapt to this liquidity, which is our common terrain. The only way to solve this conflict between the economy and freedom and to give maximum economic freedom to consumers so that they may cultivate in their lives a fair system of exchange. The dimension of ethics and justice is only imposed by those who can control themselves and their acts. By shaping a community of navigators and ship builders, we will then have an economically sustainable navigation rather than a predatory one. In the contents that circulate on the network, and in the languages that are support, and that establish communication systems, even the diversification of economic models and several possibilities of

technological development. With all that, we are faced with the need to establish regulatory mechanisms allowing for multiple forms and cultures to happen socially. All ways of living on our planet should be able to use technology for the affirmation of their existence, and in order to enshrine their values. We are on this panel to show the various alternatives and pathways that are opening for us at present. We're all establishing our navigation charts that will allow us to tread new pathways. As good mapmakers, we are building pragmatic and objective tools. More than speeches, we need a real series of decisions and procedures that must mobilize our public and private powers, our technical and legal instances of flags and maps. Our domains should gain objective contours. They should reflect the diversity of world's cultures and knowledge, breaking away with walls that stigmatize cultures and individuals, turning the Internet a way of freedom for the development of mankind. At the end, as a final comment, I would like to celebrate the implementation of the charter on cultural diversity by UNESCO as a result of a very important articulation, including more than 150 countries in the world, establishing a new, very important protocol for the cultural life and all the byproducts and the impacts brought about by a cultural life on the lives of peoples, societies and nations.

DANIEL PIMIENTA:

I am a researcher at the Antilles-Guyane University at the Martinique. I would like to convince you to adopt a more holistic view on the topic of language and cultural diversity on the internet. If the Internet is for everyone, if the Information Society is inclusive, then there is a whole series of evidence that we must not ignore. And that don't just have to do with technology. First of all, it's necessary to be functionally literate to make effective use of the Internet. The Information Society supposes a literate citizenry educated in the digital world and a participative citizenry. Second, the effectiveness of education as the UNESCO correctly puts it, is conditioned to the use of the mother tongue. Third, to make sensible use of the network requires education oriented towards the digital world, the network culture, and the skilled handling of information in all of its forms. Finally, the skill to change information into knowledge, into decisions, knowledge and wisdom, and all of this goes through communication to begin with. To organize this educational set, digital literacy and informational literacy is a major task in the north and in the south. The more we are interested in having people absorb the Internet and having power over the Internet and being empowered by it, the more it will be important for these people to acquire this new literacy where ethics and diversity are essential. Diversity goes across all components of inclusion, from universal access to participation processes. There is a lot more than the IDNs to solve. Technological neutrality does not exist when we talk about culture. Interfaces carry the culture of their designers, even if it's not consciously. Another case, there is a correlation in the north with immigrants and in the south with native populations between people in need of inclusion and minority cultures to be considered. Of the 40,000 languages we conceived on the planet, only about 9,000 remain, and of them, less than 500 have a digital existence. And of these, less than 50 gather more than 99% of the content in the Internet. A full digital existence is not limited to coding. It also includes the existence of other programs and applications, such as text correctors and translation programs. One last example is that the words we use in our processes to struggle against the digital divide, empowering innovation, participation, multi-sectorialism, all of these words are strongly branded culturally. And for a true social appropriation, a process of syncretism is required between the network culture and the local cultures. In view of the complexity of the diversity challenge, some people think that pragmatism is to limit ourselves and establish English as a universal language in the digital world. I would like to remind you of the Ashby theorem on the system theory and the degree of variety required. This is

very topical when the biodiversity in our planet is threatened by accelerated changes of various types. To reduce cultural diversity is to jeopardize the possibility for our species to evolve and adapt. If the Internet is truly for everyone, then its responsibility is to embrace the issue of diversity and give it the priority and attention it deserves. We have overcome the myth of the Babel tower. We must turn the virtual Babel into the model of respect and diversity that collective intelligence is capable of building to feed human creativity and development.

ADAMA SAMASSEKOU:

When we speak of diversity, we need first of all to speak of cultural and linguistic diversity. Otherwise you get into all other kinds of diversity. I would remind you that during the WSIS I mentioned three major challenges we face in this process. The first challenge is how can we transform what is commonly called the digital divide into digital for everyone. The second one is how can we use information communication technologies to accelerate the process of achieving the Millenium Development Goals. And the third challenge of the society we need to build is how can we strengthen, promote and develop cultural and linguistic diversity, which is the main universal common good. The diversity we experience is the best instrument for dialogue between cultures and languages. And, indeed, this is what is advocated in the text the charter on cultural diversity, the binding text in this area by UNESCO. It is the main spiritual, intellectual and effective driving force driving a society or social group. If you define it in that way, you see that culture lies at the core of any discussion of identity, social cohesion, and the development of any economy based on knowledge and know-how. That is why diversity is a common heritage of humanity. In society, each social group lives its culture, seeks to preserve as best it can its longstanding cultural values. Cultural diversity, then, is a requirement for all of us at the national community and regional and international level. It is cultural diversity that gives each individual, each society its basic human rights. Diversity gives you your right to voice your views, create artistic works in the language of your choice. Cultural diversity respects people's identities, it gives you the right to participate in cultural life. It allows you to practice your own cultural practices within the limits imposed by fundamental human rights and freedoms. Africa, the continent I come from, is the continent where citizens are deprived of all of these rights. In most African countries, what happens is, a child goes to school and starts his schooling in a language he doesn't use at home. So they don't have a right to education in their own language. Most citizens when they go to court have to use an interpreter in court. The judge and the prosecutor speak the same language; the defendant doesn't. Africa has one-third of the 6,000 languages in the world, but those languages are devalued. They're not given their full value, which means that to defend cultural diversity in an Africa continent, the African Union has established the African academy of languages. It's the only one of its kind, an institution that deals with languages on a continental scale, including non-African languages. In that context, after the WSIS, we decided in our African academy of languages to promote linguistic diversity worldwide, starting with our own African continent. We created the MAAYA network. This is the world network for linguistic diversity, to promote a diversity of languages through shared human communication, because we believe that this network should be able to make language the characteristic of all human beings. And I often say, linguistic diversity for Human Society is what biodiversity is for nature. It is the driving force of our vitality. 2008 we celebrate the international year of languages. We will be organizing an international symposium on languages in cyberspace, because we feel it's very important that information and communications technology should not be used to kill our cultures. We need to find a way to ensure multilingual Internet, to make cyberspace an inclusive area where all people of the world can reassert their human

nature through genuine communication. When you speak of the digital divide, you are speaking more about a knowledge gap. But when you speak of a knowledge gap, you are speaking about linguistic and cultural gap. I think through our discussions, we'll see how we can promote linguistic diversity through Internet in order to narrow the digital divide, narrow the linguistic divide and build a society of knowledge and know-how shared by all.

DAVID DZUMBA:

I'm speaking from behalf of a mobile phone manufacturer. For ten years, I've been part of the Nokia's accessibility activities and representing Nokia's commitment for accessible products and people. And this is a way for the access to the Internet. So accessibility as discussed here means product affordability and usability by people with disabilities. It means equal access to information and easy access to personnel who support our customers with sensory, cognitive, or physical limitations. So access to this information must be accessible, whether a mobile or at the desktop. We achieved the W3C certification. But that was just in one language. It is difficult technically to do that. Equally important is the accessibility of our products being used to access the information on the Internet. So making products and services useful to the greatest number of people is one of our goals. Another way is to find solutions for individuals whose needs may not fit tightly into one category. We recognize there is no one single solution or one size fits all. The demographics of the market inside the market really negates that. Recognizing from the manufacturer's standpoint that all things can't be to all people, we have an approach to accessibility through four types of themes. We do direct accessibility, accessibility via the standard options or accessories, compatibility with assistive devices or third-party assistive devices, and then custom modifications. So I have some devices, but one of the things we do is talk about what we do in the design of the products. In some cases, we have redundancies built in. Phones now vibrate and flash, initiate incoming calls, they offer visual cues for battery and signal strength. This is good for hard of hearing users. These things are built into the devices. For deaf users, there may be the telecoils. There are things called loops and different types of accessories that can be attached to help reduce the interference issues. And then there is compatibility with assistive devices either through the channels of Bluetooth, with its technology, infrared, or cabling. The last way is that with a lot of partnerships, there's a lot of companies that develop software that fits onto the platforms of the devices that allow issues like text to speech applications, so information that shows up on the mobile devices is spoken to you. You see a lot of devices nowadays, they have some built-in audible feedback, building with contrasting displays, there's a way to get enhanced add-ons either free or purchase through third parties for making the devices more accessible. Another activity we do things is to incorporate standard processes. There are accessibility standards that we use, either from ITU or ISO. It doesn't mean every product is going to look the same or do something that way. The other way is that to continue to have prototypes having consumer involvement either in the early stages, through parts of development, or after product launch to get feedback. Accessibility needs commitment and management support. There has to be an internal awareness. There has to be incorporation at the design stages. There has to be incorporation by standards bodies. And it needs consumer education and broad partnerships of manufacturers, operators, NGOs, governments.

DAVID APPASAMY:

We not only have to get the next billion people online, we have to get them online with economically, culturally, and socially relevant content in their own language so that it truly reflects the diversity of the human race. I say this because of the experience that I

have coming from India. It's a land of 1.1 billion people, 28 states, seven union territories, 15 official languages, 1500 dialects. You can imagine the kind of challenges that we face in getting people online. There are 40 million users today, mostly in English, some in some six other languages. And I can tell that you some of the things that we've done have had the most astonishing results, not just economically, but socially. There's a village outside Pondicherry, that was empowered with the Internet. And one of the local villagers was taught to use it. What do you think they used it for? He would log on at about 4:30 in the morning, get onto a weather station, locate satellite images of the sea so that they could find out where the fish shoals were. And the boats would go out straight to where the fish were, catch the fish and come back. And they were doing this time and again. We also had a situation in previous years where many fishermen were lost at sea because they would go unknowingly into a storm. Once they had the Internet, that didn't happen. They just didn't go if they saw a storm approaching. Another example is in the district outside the city of Mandalay in the south, where they connected every village with what was called a village cyber café. An epidemic of chicken pox was avoided because the mother whose child was sick was able to show the child on a webcam to the hospital online, and they were able to diagnose what it was and rush to the district and take care of it. They also got rid of a crop pestilence. And they connected to the terminal at an agricultural university who identified what the pest was and came and sprayed all the crops. The transformation that I'm talking about is much broader, mostly urban as of now. We have matrimonial sites where millions of young people are registered as a database. Now, in the past, parents decided who their children were going to marry. Children didn't have much of a choice, which was, you know, a pretty raw deal, if you look at it. Today, because most of the young people are online, they're able to go and troll these databases and locate somebody, maybe send them an e-mail, get to know them online, and then go back to their parents and say, "Hey, this is the guy or girl I want to marry. Why don't you get to know them, and you arrange the marriage." So the control has moved from the parents to the children. Ten years ago, this was unthinkable. It would not even be discussed. Now it goes deeper than that. In India, you know, we still have the caste system in many areas, people marry only within their caste. And it's a rigid social structure that really should not be there. You all heard about the disruptive nature of the Internet. Well, it is disrupting the caste system, because when you're online, you don't ask the other guy, hey, what's your caste. You just talk to him, go by his name, get to know him or her and decide the kind of relationship you want to have. Right down to marriage. There are more and more marriages taking place which are inter-caste because they met online. And the last two years, I have personally met at least four couples who met like this and got married online. So it's clear that the disruptive nature of the Internet is not just economic; it is social, and often cultural as well; and definitely for the better. Now, if you take the Indian experiment as a microcosm and you look at the rest of the world, if we were able to do this, the kind of change that would come about, the kind of social transformation, economic transformation, is not just what we have experienced, but probably what we have never even imagined.

#### MONTHIAN BUNTAN:

People talk about diversity differently, depending on where they're coming from. But for myself and other 650 million people with disabilities, the term "diversity" is measured mainly by the degree of accessibility. From the disability communities perspective, diversity within the context of Internet governance means accessibility for all, including persons with disabilities. For us, achieving Internet accessibility could be made through the concept of universal design and the use of assistive technology. So far, such concepts have been introduced into WSIS documents. Human rights conventions cover

social development and human rights aspects, including nondiscrimination aspects. The full and effective participation of all stakeholders has to be implemented in all aspects of the development process. Let me give an example: A colleague of mine from Colombia who was invited to attend this conference required two professional sign language interpreters. It has to be sign language that was originated by the deaf community in Colombia. And that sign language has to be translated into spoken English. That interpreters need to be brought here so that she could participate fully and effectively. That truly reflects the acceptance, recognition, and respect for diversity in reality. We in the disability community propose that concept through universal design and assistive technology development. By embracing such concept, we can truly accept and practice and respect diversity so that we can move forward toward the inclusive and accessible information society which is caring and peaceful and barrier-free and happiness-based for all.

TATIANA ERSHOVA:

The Russian territory is situated on 11 time zones and on ten geographical zones. The Russian Federation is a multinational state with over 180 ethnic groups with unique cultures and traditions, and all live on its territory. Citizens of Russia speak more than 150 languages. Two dozen languages have an official status in the Russian Federation. Russian as a state language on the entire territory, and 23 more languages as state languages of the subjects of federation. All this is relevant in terms of Internet governance. Also, Russia is a multiconfessional state where all major religions are represented and respected. There are a number of dimensions related to diversity as laid down in the WSIS document: cultural diversity, diversity of choice, linguistic diversity, and diversity of media, and also stakeholder and organizational diversity, which seems to be of great importance for me, as for a representative of a civil society organization. In the context of developing linguistic diversity and shaping multilingual environment, it is necessary to ensure the internationalization of the Internet. The importance of the internationalized domain names is discussed very widely now as essential for continued Internet development. As it is known, in October 2007, ICANN announced an evaluation of Internationalized Domain Names that will allow Internet users to test top-level domains in 11 languages. And accordingly, for 11 sets of characters. Russia participates in such trial. The Russian government advocates the implementation of a reductive administrative procedure which would allow in the most near future delegating the ccTLD with the use of national alphabets. Many countries support construction of a multilateral, democratic, and transparent global Internet governance model. Our government comes out in favor of proposal to discuss practical steps towards the involvement of stakeholders, particularly from the developing countries, in the decision-making on Internet governance policy issues. It would be good if the IGF here in Rio recommends the UN Secretary-General to create a working group on the elaboration of practical steps and measures to ensure a gradual transition of the Internet governance system under the control of the international community.

PATRIK FÄLSTRÖM:

The technical solution of Internationalized Domain Names (IDNs) only solve very small piece of the puzzle. We had requirements when coming up with the standards that the technical solution itself should be completely backward-compatible. It must be possible for one user that has software that implements IDNs to send e-mail to a person that has software that does not implement the IDNs. It must be possible to do things like reply to an e-mail message that uses a domain name that is internationalized, even though you have software that does not support the standard. It must also be possible for a person that has an electronic address book that does not support IDNs to store those in that

address book and do copy and paste. But there are also other issues that the standard does not have as a goal to resolve. For example, what strings to allocate for the ccTLDs? We also know that the standards do not solve what we call the "side of the bus" problem, which is the look alike of two different strings that might be printed on paper. So if a person is reading a string, it might be very, very difficult to know what characters is actually representing that string. The last example I gave showed that comparison of characters in a context that is unknown is extremely difficult. And this, in turn, might lead to various kind of comparison problems that in turn might lead to dispute resolution issues, specifically, between different scripts, different languages, and different contexts in other ways. The Internet Architecture Board (IAB) has come up with a document that actually lists many of these issues. Now it exists as an RFC. I encourage all of you to try and have a look at that one. In the IETF community we are coming up with a new version of the IDNs. I can rest you assured that the new version is backwards-compatible with the new version, takes care of new versions of Unicode, and because of that, many, many more languages. So I would like to finish here by talking about what I think we all can do. First of all, it's really important that we all continue to develop local content, because it's the localized content which is key to all communication. Part of that, of course, require localized software, because it's really difficult to actually create localized content if the program you're using and the manuals you have to whatever device you're using is in a language that you do not understand. It's also important that the local communities in the various countries and various language groups work together on developing local policies for IDN. We will need specific dispute resolution policies. We will need specific registration policies for domain names in the various scripts. Other things we can do is to start to participate in this trial that we just heard about from our colleague from Russia, the ICANN IDN test and go to the Web site [IDN.ICANN.org](http://IDN.ICANN.org). You can also edit text and report back how your Web client is actually acting when using that script. The last thing that we can do much is to help in the Wikipedia project. Everyone can edit things in Wikipedia. Wikipedia now exists in 253 languages. As we heard it's a very small number compared to the number of languages in the world. But we should also remember that there are only 15 languages that have more than 100,000 articles. So even though Wikipedia is one of the more successful projects regarding localized content, it is not even as good as it looks.

**BEN PETRAZZINI:**

I come from the International Development Research Center (IDRC). We had devoted the past 20 years to work on ICT for development. How do we do that? Well, we basically believe that development will not happen if there are not enough local capacity developed. We see us as social investors. So we invest in local capacity building and local developments. With that as a framework, what does diversity mean for us in terms of ICT for development? Basically, localization. We work in Asia, Africa, and Latin America and the Caribbean. All our investments go to the south and are used by researchers in the south. Although we don't do traditional research. We do applied research. And what does that mean, is that we tend to implement while, we do research and develop knowledge, new knowledge associated to the problems we are trying to address. In Asia we have invested \$2 million in a project that is hosted at the national university of Lahore in Pakistan to develop and adapt 11 languages in the region: Pashto, Bengali, Dzongkha, Khmer, Lao, Nepali, Sinhala, Tamil, Tibetan, Mongolian and Urdu. And the project basically at this stage has achieved a number of successful outcomes. It has developed localized versions of the open source operating system, Linux, and they were developing Nepali and Dzongkha. It has developed optical character recognition and text-to-speech software in Sinhala, Bengali and Lao. And a

wide range of supporting applications and utilities such as lexicons and fonts in eight languages. In Africa we are in the early stages after project that will develop localized terms, software and keyboard development for 24 African languages. We would not be only doing that, but we would be training people locally so that they can take on from there and keep developing locally those skills and elements. In Latin America and the Caribbean, we have started off with a project for the creation of a Mapuche portal, Mapuche being one of the languages, the Native local languages, for the purposes of developing a community and to integrate the Mapuche community to the Internet. Right now, we are developing a project that is similar to that of Africa with which we intend to develop localized content for several native languages in Latin America and the Caribbean. One of the advantages of digital local content is exactly the fact that it's digital. And because it's digital, it doesn't have to be totally local, although it does require a window that has certain local elements, one could multiply exponentially the availability of local content by creating networks of producers of content in similar languages. And that is what we have done with a project of educational portals in Latin America. We have brought 17 ministries of education to -- each of them have their own national educational portal. We have brought them into a network that is called RELPE, Red Latinoamérica de Portales Educativos, so that whenever one of these partners produces educational content in Spanish language, it immediately is disseminated throughout the region to all the other portals so that the kids in the various countries, when they access their national portal, then they can benefit from the production of local content in the other countries of the region that speak the same language. So there is a lot of potential by integrating production of local language into networks that have standards that allow for the swapping of language. And I would like to conclude by offering an idea. It's basically the possibility of developing a global compact on the treatment of language resources for less widely spoken languages. So in that sense, we are wondering whether it's possible to release copyright restrictions on a range of materials useful for computing and localization of these languages.

From the floor:

I am from of Fujitsu. I have a questions regarding IDNs for top-level domain names. There many technical questions regarding IDN, and those questions are now being reviewed by IETF and ICANN. But there are also many cultural and political questions. By creating new TLDs, we are inviting a lot more opportunities for cyber squatting and confusion of names. Does IETF and ICANN have enough experts from the language and social science community? And do you think we are well prepared for the risk of cybersquatting?

PATRIK FÄLTSTRÖM:

Whether enough experts are involved, I claim that for the technical standard, yes. We are now working on problems with scripts which are not used in the language you think. We are working on a problem with Arabic as used in the main language used in the Maldives. We are also having problems with the Hebrew script when used in Yiddish. So those are like the size of the technical problems that we are working with. I think we have got as good a review as possible. More can always be done, but I think it's enough. With regard to dispute resolution and fighting cybersquatting, I think we can do more. On the other hand, I'm still optimistic that we can start to use IDN because many of the problems that we think might arise during conflicts, are things that we will not see unless we redistort.

From the floor:

I have read that in cyberspace there are different languages and cultures present there.

Maybe we can group them in three groups. First of all would be the working languages used to communicate, which are, of course, dominated by English. Then there are other languages that they are used for speakers community, with varying degrees of influence. Then we find languages which are spoken about. Among them, there are some which have been subject of linguistic research, and that are present in a comprehensive way in Internet. And finally, we have languages absolutely absent from the Internet. And I would like to talk about this small group or big group, but which is absent of Internet, and the possibility of create a legal status for these languages in order to develop a multilingual content including indigenous and minority languages. And I would like to point out that maybe here we could think about the triangular cooperation between these languages that are working languages, which are absolutely install Internet, the other languages that are used but not very used, and the other ones that are just ignored on it.

DANIEL PIMIENTA:

I'm not so sure what is the scope of what you called the category of ignored language. Does it include big communication language, like some in Africa are able to communicate between countries, like Ketchwa in Latin America? I think so. In terms of cooperation, I think there is an interesting example, which is Agence de Francophonie, who try really now not to only focus French but what they call partner language. So Francophonie is targeting linguistic diversity. Their goal is also to incorporate what they call partner language in Africa, which is many language. Now, the question of how a language become part of the second category is obviously complex. You have to recognize if a language have a codification or not. If not, does it have a written existence? If it has no written existence, you have to have linguists of this language agree on a written existence. Then you have a question of the number of people talking this language which are part of the Internet connectivity access. Some study we have made, none with this language but with big language like French, Spanish, Portuguese, has shown there is a statistical correlation of use between the number of people connected and the prediction of Web page. Apparently if you connect people of a given language, statistically you will have a linear correlation for the production of Web page. So there's a question of access. So it's really a complex picture.

BEN PETRAZZINI:

I think this venue is probably the most adequate one to be able to implement something like that, under the framework of an UN initiative. With the UN secretary-general and the IGF as a framework, one could look at the possibility of creating a cooperative initiative by which public, private, and civil society groups would enter into a broad agreement on the release of copyright materials on a range of materials that are useful for computing localization in these languages.

MONTHIAN BUNTAN:

The Internet could do more to accommodate some languages which are not verbal such as sign language. Of course, we are seeing now the attempt to support the Internet telephony or even video. But more needs to be done to accommodate that. And I think one solution to accommodate multilingual and also to accommodate different types of human diversity is through standardized multimedia accessibility that will accommodate different forms of human capacity and human function.

DAVID APPASAMY:

A lot of has been done in India primarily by portals and by publications, because they

want to have their presence online in the local language. It's complex. The keyboards are not standardized. Each one is working on one way of doing it or the other. And it's slow. Tamil, for example, which is my language, has a standardized keyboard. Most other languages don't.

ADAMA SAMASSEKOU:

The big issue is that coexistence of these languages is not recognized by the various bodies that are responsible for managing these languages. Let me take the African continent. The question of the status of African languages is an issue as compared to languages we receive from colonialism. Before we start talking about Internet, we need to first of all agree on the need to develop linguistic diversity in Africa. I'm not speaking of Arab, Kiswahili, or Amharic because some countries have made those local languages national languages. But most like African countries either use French, English, Portuguese or Spanish as the official working languages. And the local African languages have no official existence. We have to develop a convivial multilingual functionalism. First of all, recognize the equality of all languages, stating that all Africans have the right to be educated in their mother tongues. In addition to that you can add another language, perhaps another African language, and then a third language which is a European official language. And it's a question of status of languages in society. If you agree in giving these languages the proper status, then you can move on and say yes, on Internet we need to build on the major vehicular languages that are already on the Internet and add to them the local African languages.

DIVINA FRAU-MEIGS:

As a Follow-up to the WSIS the C8 Action Line moderated by UNESCO is on cultural diversity. C8 has started to meet and has just identified three main areas of action. The first is heritage, and that is something that will be covered by IFLA, the libraries NGO. The second is languages. Languages will be led by MAAAYA. The third is indigenous languages. And then there's research. My NGO, the Internet Association for Media and Communication Research (IAMCR) will be the leading body. That's just for your information. A second point relates to mass media. A part of the Internet is now becoming a separate media. Convergence drives traditional mass media, including broadcasting, into the online world. How this is reflected in diplomacy? In WIPO there is a discussion how do deal with broadcasting on the Internet while ensuring that other cultures are made visible other than just Anglo-Saxon culture, music, audiovisual, cinemas. This is cultural creation. Brazilian music, for example, is very well represented even if there aren't Web pages in Brazilian that are in the same numbers as there are in English. There are ways that you can compensate which may not at present be apparent. How can developing countries change the deal, turn things around, put forward their own culture, their own music, their own audiovisual culture which is part of their identity on the net so that people will realize that cultural diversity on the Internet is a public good, a universal egalitarian public good. With regard to research we need to find measurement, tools, criteria that are much more qualitative that show the importance of relations on Internet, the creation of common culture, a diaspora. At present we have no tools for measuring those kinds of linkages. How can we find the financing, what bodies could provide financing for research of that kind, qualitative research?

GILBERTO GIL:

In the case of Brazil, for about six years under President Lula's administration, we have

always tried to have a very strong collaboration with the UN system. All areas that have an impact on development and in diversity, such as UNCTAD, ITU, UNESCO and WIPO. In the case of WIPO, Brazil proposed an agenda for development. It includes all the issues going from the protection of traditional knowledge to the distribution of knowledge to the world. We want to show our music, our audiovisuals by defending our own characteristics, defending the specificity and the specialty of our national features. Also regional cooperation is important inter laia, via MERCOSUR. Development is seen as something for which culture is essentially. Development not just seen from the viewpoint of economics but development seen from the viewpoint of the integrity of human persons. Development and culture are belonging together. In Brazil we are now implementing a process to update laws on intellectual property both related to author's rights and to patents. We have recently developed in Brazil a national coalition involving several sectors -- government, civil society, the business community -- in order to determine transition policies to deal with a migration from the analog system to the digital system in radio broadcasting, television broadcasting, and the Internet. In terms of practical action to implement all of this, we have at the ministry of culture several programs under an umbrella called "live culture." We have several programs there to facilitate access of the population to this digital universe, to the cyberspace, and to bring there the discussion on new technologies. To conclude, I would say that the Internet is now demanding modernization of politics. It's helping to clarify the role of the market and of the civil society.

From the floor:

My question is about translation software. Translation is fundamental not just for having access to more information, but also for intercultural dialogue. And if we're talking about having more information available on the Net in different languages, it will be important to have more opportunities not only to translate material into those languages, but from those languages into other languages to be able to share and dialogue.

DANIEL PIMIENTA:

The question of translation of software is really a very key issue. It's not enough to get codification, to get IDN. You need to go to translation software. And you're right, you cannot have all translation software using English as a common language to be efficient. If you try translating in some software from French to Spanish and you see it go from French in English and then English to Spanish, the quality, obviously, degrades. So we need language with a familiar language. We have a lack of translation software in Linux, which causes a lot of problems for trying to automatize translation in cyberspace. Another point: Research on language and culture on the Internet has been totally overlooked. It's been left purely to marketing people, with all the dangers inherent in that. Universities should take up these issues.

ADAMA SAMASSÉKOU:

Diversity is more than just scripts. If we're going to discuss diversity, we must discuss all diversity issues, as Minister Gilberto Gil just said. And I support his suggestion that the U.N.'s mandate should be expanded to look at diversity in the world, to include diversity. And I think Sally Burch is absolutely right. I think one thing we must leave here with is a determination to show that between now and next year in New Delhi we see improvement in freeware translation software. We held a workshop earlier on linguistic diversity. And we didn't have any interpretation there. How can you have a meeting on diversity with no interpretation? It's impossible for us to do that. Here, we must show that these technologies can promote dialogue between people speaking different languages. The final point I want is the point made by Divina. It's fundamental as part of

the World Summit process. I made this point yesterday in my message, but I think she's absolutely right to stress the need to avoid compartmentalization in follow-up to the World Summit on the Information Society. Internet is a pooled area where all of these issues can be addressed. And it's unforgivable for us to compartmentalize the issues, since we are fortunate enough in Geneva and in Tunis to bring together all the stakeholders in the information society. So I'm making an appeal to the ITU, to the UNDP, to UNESCO, which are responsible for the follow-up, to coordinate to the follow-up to the World Summit, and they are doing some very good work through the facilitators that have been identified, that their work should link into the discussions we are having in the Internet Governance Forum. I would repeat, the IGF is the only formal place where all of the stakeholders get together, all the community gets together to discuss specific Internet issues, I agree. But those issues go beyond just technical issues and IDN issues.

DAVID APPASAMY:

I just wanted to quickly address what you were talking about, as well as this business of translations. See, we have 1.1 billion people in India and only about 100 million proficient in English. So all the other languages are alive and well. And as the minister said, the culture -- the language tends to be the identity of the ethnic group and culture. So each state, India is like the European common, you know, union, because each state has its own ethnic group, its culture, everything. And each state has a population which is the same as any European country. So it is very, very culturally alive. And most people speak their own language. The common language is English. Otherwise, we are like nation states. So the languages do extremely well if you look at the newspapers, largest circulated newspapers are the language papers. And they're at the forefront of getting onto the Internet in terms of language, supported by universities. Coming to the question of translation software, I think Tamil is the only language which has something like translation software today, which is developed by a university in Chennai, where I come from. But the huge difficulty is, you know, leave alone English as a base language, each language has its own idioms, its own ways of expressing things which are just not captured by software. Even in the, you know, translation, we can see changes happening. And this is based on a human being's interpretation. If it comes to software, I don't know how much could actually be captured, given what Indian languages are like. Thank you.

DIVINA FRAU-MEIGS:

We're playing Ping-Pong here with research. Research is a part of civil society. We need the other stakeholders, too, with us. We need public policy, public financing for research into these areas so that we can have genuine coordination. And particularly the problem we face as researchers, particularly in the social sciences and the human sciences, because we're very different from engineers, the problem we have is transferring our research, our discoveries into public action and public strategies. Let me give you an example. The European community financed a huge six-country research program on mutual understanding. These are the problems that Sally referred to, problems of translation. But going beyond the language, culture, and identity. This project is online. We have CDs and so forth. But there's not a single European country that is using this research in their universities. So research is being done, but we have no visibility, no transfer of this research. I think we need the support of the other two sectors, the public sector and the private sector, so that our research is used for genuine policy progress. We need a constructive agenda of cultural diversity. I don't want a reactive agenda. Look what's happening and say, "There's nothing we can do about it." Let's be proactive, what can we do in terms of designing research upstream,

the research that we need. I think that's what we need. I hope there will be feedback from this meeting.

From the floor:

I'm part of New Humanity, an NGO group which operates throughout the world and which has its goal as the promotion of the progress of peoples through social projects, economic initiatives, cultural events, in particular, in developing countries. Our experience is that the Internet truly opened up a powerful opportunity for the promotion of peace and fraternity among all peoples. It's a tool which allows the creation of a trans-national community, enabling the sharing of these values and initiatives that are already underway. So given that one goal of the forum was to include children and teenagers, we want to give our contribution by sharing two international projects made possible by the Internet that promote diversity and unity across the globe. "Schoolmates" is a twinning program between schools all around the world which can be accessed through the Internet. To date, there are 1,200 schools participating in the program. And this engenders a sharing of languages, traditions, and actions for solidarity, which are giving rise to a mutual appreciation of the richness and uniqueness of each cultural. "Run for Unity," where 100,000 boys and girls in more than 100 nations held a sports marathon dedicated to promotion of peace and brotherhood. It is a 24-hour global relay race during which images and impressions are shared on the Web site and on a forum which has spread news also through a Web radio.

From the floor:

We are talking here about diversity of different groups, many of whom are not participating today. It has been really difficult to come here and to find reasonable accommodation in all the logistics and setting up. So when we are talking about those different groups of users, how can we make sure that we can involve them in the discussions and in the production of solutions?

**MONTHIAN BUNTAN:**

We need to develop the mechanism in which we can involve as many people as possible. And by doing so, we have to find ways in which we can accommodate differences in terms of their needs and their abilities and their requirements. But more needs to be done.

**PIERRE OUÉDRAOGO:**

I come from the international organization of French-speaking countries. This is an organization which has existed for almost 40 years, and for practically 40 years has been working on diversity. And we're very pleased to be involved with UNESCO in developing the convention on cultural diversity. We are pleased to see that three-quarters of the countries of the world have acceded to this convention. Another point: In the past decade under the impetus of innovation, we make discoveries. We implement the innovation, and then we discover problems because we failed to respect a number of principles. Perhaps we were too hasty. Perhaps we couldn't take into account those principles. And Daniel Pimienta reminded us of this earlier, why don't we also approach this sector to the way we approach biodiversity? Why not have a precautionary principle, a precautionary technological principle, a precautionary linguistic principle? Why not have a principle to ensure cyber diversity? A kind of ethical rule, a kind of RFC, in the IETF's language, which would ensure that all of the scientific community respects diversity henceforth, wherever possible, that all innovations should seek to take into account cultural diversity so that we do not deprive future humanity of certain

possibilities. African countries have the possibility to go on the Internet. They didn't have that 20 years ago. We don't know what the applications that will be developed in 50 years' time. We don't know what the future is going to bring. I don't think we can say to our children, "No, I'm sorry, you won't be able to use this because we didn't think in advance about you and how you would want to use it in the future." Let's try and anticipate the principle of cyber diversity.

GILBERTO GIL:

I just have one quick comment on the issue of free software. If free software today in the world of the Internet, in the academic world, the technological world, if technological institutions all over the world admit that free software is a far more creative tool for all applications, for every application possible, why is it that precisely on the issue of developing multilingualism applied to the Internet, free software would not be an adequate tool? Why not? I believe our commentator is entirely right when he attributes to free software a very relevant role in the development of issues related to multilingualism and the inclusion of excluded categories or semi-excluded categories. I think free software is a fundamental tool, like it has been in every sector of development of multiple languages in the Internet.

BEN PETRAZZINI:

We are largely concerned with other groups' diversity and the issue of people with disabilities. We are investing considerably in Latin America in this area, because we believe that ICTs can turn around one of the fundamentals related with people with disabilities. We have done some research, and we have found out that those communities are among the ones with the highest unemployment rate, and therefore are among the poorest of particular communities. With no resources, those communities cannot participate reasonably and actively in this information society. For that reason, and because telework is a powerful tool for allowing people with disabilities to be integrated into the economy to develop their own resources and participate with dignity in the marketplace, we are investing into a project that works on telework for people with disabilities.

CHRIS DISSPAIN:

We are rapidly coming to the end. I'm going to ask the secretary and the chair to do a brief summary.

MARKUS KUMMER:

There were different types of diversity mentioned -- linguistic diversity, cultural diversity, diversity of media, but also diversity relating to people with disabilities. And we heard a very strong plea to make all we can do to make the Internet accessible for all. And that would include people with disabilities, use of universal design, assistive technology, but also sign interpretation were mentioned in this context. And I do apologize here on behalf of the organization if participants with disabilities were caused discomfort, if we caused discomfort to people with disabilities. It certainly was our intention to do everything we could to accommodate them here at the conference. And it was also mentioned diversity as an important tool, as an important element to give people and societies their freedom. The example of African children were mentioned, were deprived of this freedom as they have to learn foreign languages as they enter school. The parallel was drawn to -- from linguistic diversity to biodiversity, and in this context, a precautionary principle was mentioned that should also be adapted as relating to diversity. The impact of standards and the importance of open, nonproprietary standards

was mentioned, and also the use of free and open source software as important elements. IDNs remain an important aspect of diversity. And it was also mentioned that the Internet can be a powerful tool when it is in your own language, that it can help change society. And there were several concrete proposals that were made as a possible way forward, including the creation of a group to work on agreements to find a way to release copyright materials for linguistic localization. As Monthian said so nicely, the Internet should be a caring, peaceful, and barrier-free place.

GILBERTO GIL:

The discussion indicated a consensus that the Internet opens a fantastic prospect for increasing cultural diversity as well for the recombination of contents. It was also said that to transform this into reality, the Internet must be managed for the benefit of the whole of mankind. Mankind needs to be able to participate in it, using their own languages, and with their own values and cultural identity. For that, the Internet needs to expand in order to reflect in its content and addressing systems the cultural and linguistic diversity as well as regional and local differences that characterize civilization. I would like to suggest that we should explore this a little more. In the beginning the Internet was just text. Now we have audio and video. There are many languages in the world that are threatened by extinction and they are not written. They are just oral languages. It is the first time in modern times in history that we have the opportunity to have technical tools for the preservation of orality in the world. The Internet must also adapt itself to the needs of people with special needs. And it became very clear here in the discussion that this depends on adequate peripherals and adequate design of pages on the Internet. Respect the rights of people with disabilities. Diversity should continue to receive priority attention in discussions on governance of the Internet.

## 6. Openness

### Session Chairman:

- **Ronaldo Lemos**, Law professor, Center of Technology and Society (FGV-CTS), Rio de Janeiro

### Moderator:

- **Heloisa Magalhães**, O Globo Folma de Sao Paulo, Editor in Chief in Rio de Janeiro

### Panellists:

- **Nick Dearden**, Campaigns Manager, Amnesty International UK
- **Peter Dengate Thrush**, Chairman of the Board of the Internet Corporation for Assigned Names and Numbers
- **Carlos Gregorio**, Expert in Privacy Rights, Montevideo
- **Amb. David Gross**, Coordinator for International Communications Policy, Department of State, Washington D.C.
- **Masanobu Katoh**, Corporate Vice President, FUJITSU LIMITED; Chairman,

Sub-Committee on International Affairs, Japan Business Federation (Nippon Keidanren)

- **Mark Kelly**, International human rights lawyer, Human Rights Consultants (HRC), Dublin
- **Alexandre Jobim**, Chairman, Legal Committee, International Association of Broadcasters

#### Discussants:

- **Peng Hwa Ang**, Associate Professor and Chair - SCI, Nanyang Technological University, Singapore
- **Sally Burch**, ALAI, Ecuador
- **Pierre Dandjinou**, CT Policy Advisor, United Nations Development Program, Benin
- **Michael Geist**, Law Professor, University of Ottawa
- **Claudio Lins de Vasconcelos**, Legal Manager of Fundação Roberto Marinho, Rio de Janeiro
- **Benoît Müller**, Director, Software Policy, Business Software Alliance

#### HELOISA MAGALHÃES:

For us journalists in economics and finance, openness is of utmost importance. And for me as a Brazilian, there's special appeal to this. We are a country full of inequalities, and the Internet has proven to be a means of overcoming the challenge. First give the floor to the Chair of our session, Ronaldo Lemos who is a professor of law at the Fundação Getulio Vargas Law School.

#### RONALDO LEMOS:

The idea of openness cuts across the main themes like diversity and access. I would like to refer to three dimensions of the theme. The first one is the legal dimension. One of the crucial issues is the issue of exceptions and limitations to copyright. We need openness for collaborative production of culture, information, and scientific knowledge and we have to clear the liability of ISPs which has to be regulated locally. The second dimension is political. Openness has a very intrinsic relation with governments worldwide. And there is a role for intergovernmental organisations like WIPO and UNESCO. The third is an economic dimension. Many companies have included openness as part of their respective business models. We have been seen in recent years a race towards openness in the sense that openness actually increases the value of companies and it creates value in itself. But we have to look also into the role of developing countries here. Furthermore the economic dimension includes also innovation. Openness lowers the barriers for new entrants in the economic markets and opens the door for new innovative creations. Let me finish with some examples. One is from the Brazilian ministry of planning, which has created recently an initiative to promote interoperability and standards. Another one is on open source software. The Brazilian governments is licensing the code that has been produced by the government itself so that it can be openly and sometimes freely accessed for the citizens of that country. And, finally, on open access. In Brazil, we have the Salvador Declaration on Open Access and the São Paulo Letter on Scientific Knowledge. This is about open

licensing of scientific materials and knowledge promoting science commons and creative commons.

DAVID GROSS:

When I see the term "openness" with regard to the Internet, I immediately think of the importance of the free flow of information. The issue of the free flow of information was one that we spent a lot of time discussing, analyzing, and negotiating within WSIS. Paragraph 4 of the Tunis commitment says that we recognize freedom of expression and that the free flow of information, ideas, and knowledge are essential for the information society and beneficial to development. And in the Tunis Agenda we reaffirmed our commitment to the freedom to seek, receive, impart, and use information, in particular, for the creation, accumulation, and dissemination of knowledge. It was agreed by all that the free flow of information is at the core of what the Internet and what the world that we hope to create is all about. How that is implemented in each country should be determined in a democratic fashion by each country so that it reflects local culture, norms and history but with an eye towards that important end goal of encouraging the free flow of information. Furthermore I want to refer to paragraph 46 of the Tunis Agenda which deals with privacy and access to information which is closely linked to openness. Paragraph 49 deals with openness with regard to software, including open source, proprietary, and free software. And often overlooked but extraordinarily important is paragraph 90, which in subparagraph (k) refers to libraries and the importance that people around the world have access to the world's information. That is one of the things that makes the Internet profoundly different than any other time in human history. Thanks to the Internet everyone has now the ability to have access to the world's knowledge. Through that access to the world's knowledge, people can find the path forward to economic development, social improvement, and, ultimately, of course, to political freedom.

MASANOBU KATOH:

Openness is not a matter of freedom prevailing over regulation or vice versa. The Internet protocol experts often say that free use of the Internet and freedom of expression are critically important, but intellectual property experts say that copyrights, other legal rights, and regulatory frameworks, are crucial. On the surface, it appears that these two "IPs" are in relationships of dichotomy or opposition. On the one hand, the Internet is universal, autonomous, borderless, and common property. On the other hand, intellectual property is characterized as regulatory, exclusive, and proprietary. A question, then, is, can these two IPs coexist? My answer is, yes, they can. Let me show you an example of achieving this balance. A serious problem in the Internet space is illegal activities online. Governments tend to introduce regulations to maintain an orderly, secure environment. These regulations sometimes suppress the freedom of citizens. Policymakers worldwide therefore try to strike the right balance. After the US Congress enacted the Notice and Take-Down Regime of Digital Millennium Copyright Act (DMCA) and the EU adopted the horizontal reliability provisions of the e-Commerce Directive, lawmakers in Japan developed a similar law named the Providers' Liability Act, which covered not only copyright infringement, but also other illegal acts, like defamation. The Providers' Liability Act of Japan requires ISPs to forward infringement notices from copyright owners to the alleged infringers. If the alleged infringer does not object to the infringement claim within seven days, the ISP may take down the allegedly infringing materials. But if the alleged infringer does object, then the parties concerned can resolve the conflict. The law was criticized from abroad. People asked, why must seven days pass, even if the materials are clearly infringing? Because of the potential damage during those seven days, a procedure for immediate take-down must be

established." In response to such criticisms, the Japanese ISPs established industry guidelines. Under the guidelines, if a sufficiently detailed notice of infringement is sent by an association determined in advance to be reliable, the ISPs can remove the materials before the expiration of the seven days. Japans Society for Rights of Authors, Composers, and Publishers, is a good example of a reliable association. These guidelines have proven successful over the past five years. The combination of the act and guidelines provides great flexibility. The act covers wide areas of illegal activities, including copyright infringement, but also considers the importance of freedom of expression. The guidelines supplement the act by enabling ISPs to respond immediately to clear cases of infringement. Self-regulation has another benefit. Reliance only upon government for compliance with laws can lead to increased cost for enforcement and even the risk of a surveillance society. Self-regulation by the private sector can supplement government action by asking people to regulate themselves at their own risk. This can be more efficient and can avoid some of the risks of the surveillance society. In sum, the dichotomy between freedom and regulation on the Internet can be resolved by, one, striking an effective balance among various stakeholders' interests; and, two, by combining real laws with guidelines and authority established by the private sector.

MARK KELLY:

Firstly, I'd like to embrace this definition of openness as including as cardinal elements freedom of expression and the free flow of information. And certainly where the Council of Europe is concerned, that has led that organization to conclude that there must be affordable, safe, and diverse access to the Internet. But we have also to look at the public service value of the Internet. The Internet has become such an integral part of people's lives, that they rely on it so significantly in all of their everyday activities online, that there's a resulting legitimate expectation on the part of individuals, that Internet services will be accessible and affordable, secure, reliable, and ongoing. Council of Europe conventions on cybercrime, on the protection of children against sexual exploitation, and others have emerged as good practice for cooperation among groups of stakeholders. , and, in particular, civil society and intergovernmental organizations do seem to be working together with a common goal. An interesting model is the Aarhus convention upon this notion of public service value. I just wanted to pick up on Ambassador Gross's reference to paragraph 4 of the Tunis commitment. While it's sometimes very good, Ambassador, to be able to encapsulate things in one sentence, from a human rights standpoint, it's also important to unpack a little bit and to recall what is the essence of the right that we're speaking of when we speak of freedom of expression. From the Council of Europe perspective, the essence of freedom of expression very clearly applies not only to information or ideas that are favourably received and regarded as inoffensive or as a matter of indifference, but also to those that offend, shock, or disturb the state or any other sector of the population, because such are the demands of pluralism, tolerance, and broad-mindedness, without which there would be no democratic society. Two years since the adoption of the Tunis commitment, are all stakeholders genuinely playing a full part in the observance of freedom of expression? And, in particular, I'm thinking of the private sector and ICANN. Can we say with confidence that we believe that a human rights-based approach is being taken in their decision-making processes? And if we can't say that, is that a legitimate subject for us to be exploring in greater depth? A human rights-based approach means more than paying lip service to a right like freedom of expression. It means asking ourselves if we're going to interfere with someone's right to freedom of expression, whether we're a regulator, a domain name provider or a private corporation, is that interference prescribed by law, is it lawful, is it necessary, is it proportionate?

ALEXANDRE JOBIM:

The World Broadcasting Union has adopted a joint declaration which relates to our subject. It says first that technological communication is not an end in itself but is a means to provide information and content. Second: Freedom of expression, pluralism of the media and cultural diversity should be respected and truly promoted. Third, electronic media are a vital importance to the Information Society. Four, television and radio are key for the consistency and development of the digital world. Finally, information should be accessible and available to anyone. The Internet maybe is the fastest and most efficient means of distributing content for the future. Therefore, we understand that broadcasting can and should become part of the content distribution chain on the Internet. The broadcasters are the greatest producers and distributors of content today. Why not deploy a win-win model in which the population may use technological opportunity for content diversity and plurality, making possible on the other hand for new opportunities for production of programs and content distribution. However, given the fact that broadcasting is a highly regulated sector as regards content, with obligations, limitations and responsibilities on programming, adding reliability and quality to information, we should not say that technology has the power to simply ignore these limitations which intend to protect precisely the viewers themselves, the children, cultural diversity, maintaining local culture, etc. Therefore, as we face technological innovation, we cannot speak of an absolute right to freedom if this may go against this also protected individual and collective rights, especially the rights of the viewers. The fact that the Internet is a network, to a certain extent ownerless, without content responsibility and eventually used by those who are irresponsible and even criminal, it is unacceptable that there should be no control nor responsibility. I believe that effort should be made that countries should adopt in their domestic legislations control mechanisms and punishment to criminal violations using the Internet. We cannot compare eventual excesses in entertainment programs or journalism with severe violations such as pedophilia, fraud, terrorism and the encouragement to violence. The simple fact that there is no governance already causes surprise because we would have to admit that we participate actively or passively of a truly free technological phenomenon leaving the people totally unprotected without any intervention or protection. And there are violations regarding intellectual property. It is well-known that the Rome convention of 1961 includes the so-called derived rights of broadcasting organizations where broadcasters have the exclusive right to authorize or to forbid the transmission and retransmission of their programs. With the arrival of the Internet the violation of these rights has become usual practice, leaving broadcasters unprotected, those who are the owners and producers of content, because there are no legal instruments for coercion to prevent this type of violation vulgarly known as piracy. The WIPO has debated and thought over the topic with a view to update the convention. My question is, should we accept the continuing intense regulation of traditional media such as radio and television and leave totally free any type of content distributed by the Internet, or should we eventually bring up to par the responsibility and the regulation for these new players of entertainment in this market. This is that broadcasters bring to this debate. They will continue to struggle in favour of the freedom of expression without, however, closing eyes to the new and necessary regulations regarding the possibilities of violations by means of the Internet, especially those which are criminal and should be the concern of the different states and organizations which are here represented.

NICK DEARDEN:

Most people here will sign up to the fundamental importance of freedom of expression. It's made clear in the Tunis Agenda, in the Universal Declaration of Human Rights,

which most states here have signed, and also it's the basis for the multistakeholder initiative, which various companies and civil society groups are involved in. But despite this, we're still faced with the situation whereby Internet filtering is spreading rapidly across the world. Where activists are increasingly harassed, arrested, and imprisoned for their legitimate online activities, where companies continue to work with governments to impose censorship. And I think as Internet access continues to grow, this repression seems certain to increase as well. And if we're not careful, this will threaten ultimately the nature of the Internet itself, to turn it into something very different from what we see today: A tool of repression and limitation rather than liberation and openness. And I fear very much that for many governments across the world, human rights are actually slipping down the agenda. I've heard many governments in Europe speak over the last year about the Internet and focus almost exclusively on child pornography, on credit card fraud, and on the threat of terrorism. But I haven't heard human rights mentioned once. We need to start thinking far more fundamentally about human rights and freedom of expression as the answer to some of these problems. A key question has to be the creation of political will around defending freedom of expression on the Internet. And that doesn't mean simply that we agree in principle that freedom of expression is a good thing. It's about making these principles into reality. How we operationalize and enforce these principles. In the same way that we need to build diversity and increase access, we also need to make sure human rights are essential to those themes as well. That's the only way to ensure that the Internet can genuinely reach out with its true potential to educate, to empower, and to change. How we ensure that governments start promoting the Internet in terms of freedom of expression and ensure they don't fall into the trap of seeing dangers everywhere in cyberspace or move from having legitimate concerns about material online to simply removing what they don't want to be online or of seeing the Internet as simply an economic tool where business holds all of the answers. We need to ensure that companies realize that human rights are fundamental duties on them as well, and not simply add-ons. And companies need to take all legal, political, and technical means at national and international level to prevent possible compliance in violations of freedom of expression. And moreover, it's the duty of governments in the countries where those companies are headquartered to ensure that this is enforced. The necessary procedures haven't been put into place despite the fact that human rights and freedom of expression underline everything.

PETER DENGATE THRUSH:

I have recently been elected the chairman of ICANN but my day job is as a trial lawyer. I am a barrister in intellectual property law. On my election, one German reporter described my appointment as a bridge perhaps between the IP Internet world and the IP world that Katoh-San encapsulated. It's clear that freedom of expression is one of the most fundamentally supported views. There is also the fundamental freedom to enjoy the fruits of your labor and also the freedom to enjoy the undisturbed use of your property. And there is a potential conflict between those freedoms. The Internet makes the copying of people's property extraordinarily easy and available all over the world. We have the ability now to take the images, the music, the text, and all and any combinations of the above and to use them instantly, without authority. How do we balance those various freedoms? It's important to understand that the law is a product of society. It's not a separate institution that lives by itself. The law is the development of the will of the people. Copyright law in particular has developed on the notion of a fair use of other people's property. The law of most jurisdictions has developed quite clear notions that there are circumstances in which the right of the owner can be abridged. The classic example of that is in the area of education. Most states place an enormous

premium on the value of education. And in the balancing of the right to educate is usually an exception to allow other people's property to be used. Another one is the freedom of expression. The exercise is drawing those boundaries and recognizing that those boundaries shift as the community shifts. We see examples such as creative commons, which is, in summary, a licensing scheme to make material more readily available. With the Internet comes innovative solutions to the problems posed by the Internet. Creative commons is an example. So we need to strive to keep the balance between those different rights. But copyright doesn't protect ideas. What copyright protects is the expression of the ideas. There is no conflict between the freedom of information, spreading of information, the spreading of ideas, and copyright. Copyright protects the labor that someone has put into expressing the idea. And once we separate the issues, there seems to be no problem between protecting the effort that someone has made and to taking an idea and turning it into a useful, readable, or watchable, or listen-to-able product, and the idea itself. The idea remains. What about the role of ICANN? I agree that decisions of organizations should be judged in part by their compliance with human rights. In my view, ICANN's decisions survive that scrutiny and are based on a human rights approach. On the other hand, compliance with human rights principles is a journey, not a destination. We will strive to make sure that we continue at ICANN to meet those requirements, but we welcome contributions from anyone else as to how we might improve those processes.

CARLOS GREGORIO:

Openness is a balance amongst three rights: The right to access, the right to freedom of expression and the right to privacy. Privacy may not be the best word. Maybe we should use openness and speak about people who become vulnerable as a consequence of this openness, which all of us want to keep at the highest level possible. In my eyes the main risk, what creates vulnerable people in this concept of openness is the state itself. I will be more specific with some examples from Latin America. There are Web sites for judicial departments which are open with the idea of transparency. Decisions and case law is on the Web. We have powerful search engines which have access to all this material. There are the workers who have claims against their former employer. The labour courts will rule in favour or not. However, in the future, these people will be blacklisted and they will not be hired once again by another employer. There's a country in Latin America in which they have listed almost all HIV-positive people in their legal site with the social security numbers. These are obviously victims. Usually they are children who are the victims of sexual exploitation and the victims of other crimes. And this is not paranoia. People will access these sites and investigate. In Mexico, there's a company dedicated to downloading every day the information of these legal sites. All of this happens because there are legal gaps and lack of policies and definitions. When we talk about balance between privacy and freedom of expression, the issue is different. The issue usually comes in the blogs. In the blogs, you have all types of creation, for instance, photo logs: Teenagers take normal pictures, they change them, and they create pornographic content photos, and they use them for sexual harassment. This means that we have to create a system of responsibility on the Internet. The Internet is open, but it is not a space for irresponsibility. There should be rules where you can have criminal and civil punishment. In this efforts of balancing privacy, regrettably, I believe is being lost. And it will be very difficult to keep it up.

SALLY BURCH:

Threats to freedom of expression don't only come from governments. And as the Internet becomes a media, one serious threat to openness in content is the possible growth of virtual monopolies. Less than 1,000 content providers now concentrate most

of the audiences on the Internet. In democratic societies, the establishment of limits on media ownership has been an accepted norm to ensure pluralism and democracy. But now we see greater concentration. There's a growing trend in online media that major corporations are controlling increasingly large portions of Internet content. And there's no clear mechanism on how that could be regulated, because it's international. There's a sort of vacuum at that level. The kind of policy issues that relate here are, for example, attempts by some broadband providers to give faster access to their users, to services that pay for that faster access. This is a network neutrality problem, but it also has to do with a problem that would tend to reinforce monopolies in content provision. Is the free flow of information about having no restrictions so information can flow or is it about creating conditions so that people from different parts of the world and not only large corporations and not only northern countries can contribute equally to that free flow?

DAVID GROSS:

The issue of media concentration is one that we are looking at on an ongoing basis in the US. And it is certainly a very serious issue. However, it is interesting to see the different approaches. We certainly are concerned about local monopolies. And there's an ongoing debate in the US, both before our Congress and before the FCC. However, without trying to delve into the specific US domestic debate, from my international perspective, I see the opposite happening. I look at the way in which people have access to information today, and I see a world that is so much more diverse than the world that I grew up in. When I grew up, I only had access to a couple of media channels, whether from television, radio, or newspapers. Today, I can access almost any newspaper in the world. And if it's not in English, I can do a quick translation using free software that immediately translates those things. I look at the way in which my son, who is at university, and his friends no longer listen to the radio the way I did, but, instead, they use Internet radio and listen to the world's radio stations and listen to content from all over the world in ways that before were virtually impossible. And I see video, how blogging happens and how people have access very directly to individual expressions without having to go through the filter of media companies. I see a tremendous diversity of voices. And, in fact, as I travel, the complaint I now start to hear more and more is that there are too many voices, that it's too hard to be able to pick and choose and to find out what the trusted sources of information may be in ways that are different. I see very much a trend towards internationalization and a great diversity of media sources.

PENG HWA ANG:

Openness is a very tricky concept. As Kato-San has said, it's neither open or closed, it's a spectrum. Openness isn't just a matter of being open or not open. I support self-regulation, but I think there are limits. The issue of self-regulation is that it's not truly democratic or open, because what happens is that the discussion is internal to the industry association. You can trust the regulation where you discuss it in parliament. But self-regulation, oddly enough, it's not truly open. It's a form of delegated regulation. And what it means is that, actually, the social harm of the event or the matter is not really considered important by the government. If it is not truly important, governments do not regulate it and let the industry go. And this can lead to unbalanced solutions. And this relates also to human rights. If we are going to allow self-regulation, industry regulates it. But when you talk about human rights, you cannot negotiate human rights. You have it. However you have regional difference. Privacy in Europe is seen as a human right, in Asia it is not.

MARK KELLY:

The core concept for me is that the right is inherent in the individual human being. It's not something that needs to be given to the individual by a state or by an intergovernmental organization. Nor is it something that the individual can choose to give away. It's inherent in their humanity. The difficulty is the implementation of those rights. We're fortunate in Europe that we have a more developed regional system with a sort of constitutional court in the form of the European Court for Human Rights. In certain other regions, those norms and standards are not yet as effectively implemented as they could be. We have to look for new ways to make sure that people are able effectively to enjoy them everywhere. However, that states can no longer be looked to as the guarantors of human rights, they may simply not be in a position to ensure that those whose privacy is invaded have their privacy properly protected. I think it is absolutely incumbent upon the private sector, ISPs and others, to live up to their responsibilities to protect and promote human rights according to standards which are the standards of the world. They're not European norms. The Tunis commitment was a global commitment to those human rights standards. The protection of the right to privacy in the online environment is a vital consideration, and I think exactly the same sorts of checks and balances, the same sort of reasoning process which says that the default position is respect for privacy has to be respected, and that ways need to be developed to ensure that private corporations and regulatory authorities and others approach the question from that perspective.

CARLOS GREGORIO:

There is a thin line in the balance between privacy and freedom of expression. The only way to support this balance is with an a posteriori regime, which would not imply previous censorship. This means procedures of civil and criminal responsibility. Today, this is a problem on the Internet. Who should we address the question?

From the floor:

I am Tokyo Marine, a member of the Japanese Business Federation. My question is about protecting copyright. Recently, I was very surprised to note an American woman was ordered to pay \$220,000 by downloading 24 musics illegally. Do you think it's appropriate to impose a heavy penalty for a download or violation of intellectual property? Could there be another way to protect copyright?

PETER DENGATE THRUSH:

It's very difficult to comment on some other jurisdiction's systems. But punishment regimes and intellectual property usually have a number of components. One is compensation. If there's been a taking of someone's rights in a way that has deprived the owner of an ability to exploit them themselves lawfully, then there's usually a component in the regime for compensating that. Other principles in the punishment include making an example. We call these exemplary damages, where there is an amount that's just designed to say, "We disapproved of this conduct. We do not want this to go on. And you are going to have to pay more as an example to others." So unless you know the regime and unless I know the actual situation, it's difficult to know how this measure of damages was calculated. Certainly, the sum of \$220,000 may be a lot of money. But unless we know whether there was profit made by the infringer and what the cost was to the owner and what the nature of the example that was needed to be made, it's difficult to know whether this was an appropriate punishment or not.

PIERRE DANDJINOU:

As I sit here listening to this, I remind this desire of a painter sitting somewhere in Africa in a cyber cafe where the whole country only has two megabytes per second as a bandwidth, and he is paying a high amount for this, but he is trying to update his Web site, because he think that he could attract some money. Not local money but some dollar or Euro. But then his country has no electronic law, whatever. He knows no lawyer. And then one day, on a TV, he found this sort of exhibition, and the way the craft were presented resembled some of his work. What to do? What should we do for this guy who would like to contribute to innovation but has but has no legal protection. There is a saying in Africa there in some countries there is no copyright, only a right to copy.

MASANOBU KATOH:

If you have a law in your country to protect whatever aspect of intellectual property product, that's fine, you are protected in your country. But unfortunately, intellectual property system is a very domestic, nation-based system, and that's why you first have to have your own country legislation, and then also

global harmonization. In your case probably you could be protected by copyright or a trademark system. But you need your national law, which should be harmonized on a global basis. This is a challenge for everybody to do business.

MICHAEL GEIST:

I am a Canadian law professor. The case under US law provides for up to \$150,000 statutory damage per infringement. It's not a case of making an example out of anyone. It's the reality of a copyright enforcement system that provides the prospect for literally millions of dollars in damages for acts as simple as the one described and has resulted in tens of thousands of people settling cases because they face the risk of those kinds of damages. Furthermore there's been a lot of talk about the freedom of expression in the context of openness. It's important for us to realize, that we are not talking about people standing on street corners or publishing letters to the editor. In many instances we are talking about millions of Podcasters, people who are using video, who are doing a range of incredibly creative things. They are in a sense what people used to think of as broadcasters. If they face risks or challenges or barriers it comes in part from copyright, because millions of them create not because of copyright and not because of compensation that they think they might be able to obtain but, rather, because of our innate desire to create and to express ourselves. And copyright, to the extent to which things like anti-circumvention legislation create barriers to that kind of expression, there is a concern such as net neutrality where those voices are treated on a separate tier from the voices of those who can afford to pay some of those larger established corporations.

From the floor:

One of the founding principles of intellectual property protection is that is the inextricable link between intellectual property protection and the incentives for the dissemination of information and knowledge. And intellectual property protection also helps facilitate cultural diversity by ensuring that people who can protect their works can make their works available, because they can ensure that they will get some sort of remuneration if they choose to get remuneration. Their exclusive rights can always be exercised by allowing that information to be made freely available without compensation. There is an urgent need to combat counterfeiting and piracy so we can all pursue our shared goal of facilitating the information and knowledge.

BENOÎT MÜLLER:

I represent the Business Software Alliance, which is a trade association representing most of the leading software companies and their hardware partners developing and licensing software on their proprietary, open source and increasingly mixed models. Open source is not new. It's been around since the inception of the Internet. But what has really happened over the recent years is that open source has really become much more mainstream, and has made its way into the commercial marketplace. Increasingly BSA members work on both models and a lot of products we all use have incorporated both open source as well as proprietary components. So I think in terms of the policies that address these issues, what is very important to remember and to note is that both or any type of software licensing development and licensing model is really based and facilitated by intellectual property. It is then a choice for developers and innovators to compete both on the technical side but also on the business model side. That's what really we have witnessed over the recent years. In terms of public policy the challenge is to enable all of these development models to flourish and to compete. Preferring one over the other limits choice and competition, and ultimately for the user it reduces the opportunity to get best value for money. Because of this increasing trend to see mixed solutions interoperability is becoming more and more important. Open standards are one of the ways to achieve interoperability. These are very complex and market sensitive issues where different interests, such as also reliability, security, value for money have to be balanced. It is mostly a marketplace issue. The role of government is mainly to create an enabling environment and to facilitate the industry to innovate. Mandating standards is very risky particularly in areas where mandating a standard would ultimately result in mandating a particular product. So what I would contend is the goal for government, and particularly when government acts as purchaser of software, should be an efficient I.T., a part of which is the right level of interoperability and open standards are one of the means to achieve this end.

From the floor:

First, there is no contradiction between open source and intellectual property. This is a common mistake, in which people oppose intellectual property to open source and free software. And actually, open source is just a modality of licensing. So the creator, the legitimate owner of the software uses these exclusive rights in order to license the software by means of a license that allows the free distribution, free modification, free changes of the license. The second thing is that intellectual property is indeed a very important incentive for the creation, the promotion and the dissemination of culture: But it's one incentive. There are other incentives, so-called nonmarket incentives. Other people call it commons-based peer production. Others call it simply collaborative culture. These incentives are not primarily linked to intellectual property.

From the floor:

The organization I represent is both a consumer and a producer of protected content. So for us, the importance to have a predictable and healthy market is the market where all interests of all stakeholders are duly respected. And the stakeholders include those who invest in the creative process. Over-restricting access to information in Internet is certainly wrong. But It doesn't seem to be right to allow huge private companies to use third parties' content and profit from it without sharing the profits with the content providers. I surely wouldn't go as far as arresting a user. However, without intellectual property revenues, the market would just become poor. Investors will surely find something better to do with their money, and creators or would-be-creators would surely find something to do with their time.

MARK KELLY:

We need an accountable Internet. Accountability and transparency is a core and fundamental human rights value. I just wanted to flag up that in the Council of Europe recommendation on public-service value there's an explicit reference to the right of re-users meaning those who wish to exploit existing digital content resources in order to create future content or services in a way that is compatible with respect for intellectual property rights. I would like to suggest that the framework that we could consider adopting, namely, a human rights-based framework, is exactly the framework that could assist in the kind of balancing classic civil and political rights and the right to property and some of the more sophisticated aspects of intellectual property law. The Internet needs to be rendered accountable, which means that those who make it possible also need to be accountable.

From the floor:

I'm from DiploFoundation. My question is to ICANN on new top level domains (TLDs). I'd like to know what is the state of art? Does it affect the right to freedom of expression?

PETER DENGATE THRUSH:

The ICANN board has received in Los Angeles just two weeks ago policy proposals from the GNSO that is responsible for developing the policy on the introduction of new TLDs. That policy has now been posted for public comment. The staff have commenced work at ICANN on implementing that policy. If all goes well, we expect that implementation discussion to result in applications for new TLDs to be received from about June or July of next year, probably a little bit later because its complex and difficult. Whether or not ICANN is competent to make those decisions is a very interesting question. What is proposed is, as much as possible, to remove the ICANN board from making subjective decisions about the value of a new TLD and creating an appeals process so that if there is a string that's selected that causes some controversy, there will be a mechanism for a community to protest and it will be sent away for adjudication to someone other than ICANN.

MARK KELLY:

I'd like to ensure that judges are fully aware of the implications of international human rights and technically savvy and well-equipped.

From the floor:

Freedom of expression is not jeopardize only by states, but also by the private sector. The idea of free flow of information brings us back to UNESCO's MacBride report. I recall the notion of the right to communicate. The complete lack of regulation makes the law of the jungle to prevail and threatens millions of people's human rights, such as freedom of expression and the proper right to communicate. We could mention many examples of that, but let's just stick to the current threat to Internet neutrality by big telecom companies. Of course, overregulation and control can strongly affect freedom of expression. But underregulation is as dangerous as overregulation. To strike a balance, we could learn from the traffic regulation. Traffic lights, parking rules, speed limits, and car and trucks cohabiting rules are fundamental to guarantee people's right to come and go. Of course, if you put traffic lights in a place that a roundabout would be enough, you're overregulating. But if you do the opposite and do the wrong choice and just believe in the free flow of vehicles, you create a picture in which you affect directly the freedom of those who are not big enough.

NICK DEARDEN:

That it's an extremely good point you've made, and I agree with everything that you've said. Self-regulation really can't work in the long term, because without enforcement, a company may like the idea of human rights, may try and abide by freedom of expression guidelines, but, ultimately, it's going to come second to securing markets and producing a profit, because that's what companies do. That's their whole purpose. Governments need to regulate and need to take responsibility. It's not good enough for a government to say, "We don't like what that government's doing over there and we don't agree with their censorship" if you have a company based in your country which is complicit in that censorship.

From the floor:

What is the role played by the current big search engines on the experience we users have the Internet nowadays in terms of flows of information, access, and diversity?

CARLOS GREGORIO:

The role of the search engines is essential for access and freedom of expression. There can be no freedom of expression if people cannot read, listen to the expression or the manifestation together with it. So the search engines should be totally transparent. We should be able to know how the search tools are a danger capturing information. We should also be able to see what kind of exclusion the filtering tools do. Search tools should be not subject to regulation but they should be open to more competition. There be also "official search engines", neutral and impartial, where you can query without a filter or change of priority. Regrettably, today, our only access are the small number of private search engines.

HELOISA MAGALHÃES:

Do you agree?

NICK DEARDEN:

Yes, I agree. I think it comes back to the virtual monopolies being created online. And one of the things that concerns me is the companies I have spoken to this week involved in this don't see the kind of threat dominance proposes and they say at the end of the day you can go to another search engine if you don't like our search engine. But that isn't based in the reality of market dominance. And as a company becomes more and more dominant in the market, actually people do have less and less choice and less and less freedom of information about where they can go, and all the while those search engines are collating more and more private information on people.

From the floor:

The Internet is a network of sharing. It is a database to share information processing and transmission bands. If you have any doubts, you can ask Vint Cerf. The problem is that the laws that regulate intellectual property are prior to the Internet, and we know that. And the laws after the Internet, they are just patch-ups of the former laws. A lot is said about the Bern convention and US laws. However, these laws are not adequate to the technology. How could we efficiently apply the old and outdated laws and not rupture the neutrality of the network without violating the fundamental rights of freedom of expression and privacy?

ALEXANDRE JOBIM:

There's no doubt that there's a problem between laws that came before the Internet and after the Internet. We cannot use this as an excuse not to comply with the law. The law

is the result of society and there's no protection in the case of intellectual property for ideas. Now, how can you make compatible freedom of expression and, let's say, a sharing network, but the legal objectives to curtail that. I don't see a problem. The problem is that the Internet cannot be seen, as a simple sharing network, as if this were a general waiver for people to violate and commit crimes. Internet users are not users of the stratosphere. The law should be updated, adapting itself to concrete cases. In Brazil, there's a difficulty of the legislators following technology. The fact that the laws came prior to the Internet this is not invalidated because the principles of intellectual property is the principle in which the person wants or does not want to have his production protected.

From the floor:

I am from the European broadcasting union (EBU). Mr. Kelly spoke about the notion of Internet having public service value. This is a well founded assumption and we certainly agree with it. But I wonder if he really thinks it's some contradiction in terms in the sense that we just finished several years in Europe discussing what we call the media services direction where we have assumed that the Internet is somehow a child of a lesser God that doesn't require anything like as much regulation as other kinds of media delivery service. So I do see a contradiction there which our European regulators may need to think about. But perhaps it's indicative of a general problem that all of us may have, and that is how to make time independent regulation in the media business.

MARK KELLY:

If we're clear that we are in the face of new broadcast technologies, looking at new means of delivery, that is one thing which may need to be regulated with a greater degree of sophistication. But the rights involved in their essence have not changed. I think the essence of it for private corporations is there's a huge degree of corporate risk in not taking into account human rights standards in the way in which they reach their decisions and in the content and quality of the decisions that they reach. We had the specific example of new TLDs. That can raise issues of freedom of expression in which it's absolutely conceivable that a little bit down the line, decisions being made now freely by private corporations in their own right may be subject to human rights-based challenges, and states themselves may seek, in a regulatory fashion, to hold to account those companies that make those decisions if they don't make them in a way that is in conformity with the highest possible internationally recognized standards. Let's stick to first principles and let's be prepared constantly to human rights proof, new policy, practice and law that we produce and review old law to make sure it's human rights compliant. There shouldn't be a contradiction between freedom of expression and intellectual property rights.

HELOISA MAGALHÃES:

Now the final remarks from the secretary and the chair.

MARKUS KUMMER:

It clearly appeared that openness is a multifaceted and multi-dimensional issue. It's a cross-cutting issue with linkages to the other IGF themes: diversity, access, and security. And it has legal, political and economic dimensions. Several speakers pointed out that there are questions of balance. There is a balance between the two IPs, Internet protocol and intellectual property. There is a question of balance between freedom of expression and free flow of information and the freedom to enjoy the fruit of your labor. There is also the question of balance between privacy and freedom of expression.

There was strong emphasis on the fundamental freedoms as contained in Article 19 of the Universal Declaration of Human Rights, the WSIS Geneva declaration of principles and the Tunis Agenda. It was pointed out that human rights' perspectives should go beyond paying lip service to these universally accepted principles. The observance of human rights should be part also not only for governments but should also be part of the business plan of international cooperation, and it was pointed out that compliance with human rights is a journey rather than a destination. One speaker was concerned that human rights slipped down the Internet governance agenda and that issues such as child pornography or credit card fraud, terrorism, are treated as a priority issues, and there should not be an either/or. Solutions to these real problems should build on human rights. The principles that were accepted by all need now to be translated into practical solutions on human rights-based solutions. There was a lengthy discussion on various legal aspects. It was pointed out that law is always a product of society and reflects common held standards and that laws can be abridged, exceptions can be made, such as in the case of education. There was also a discussion on what kind of regulation we want, should we have laws or should we have self-regulation. My reading was that there was general favour for a mixed solution between hard and soft law instruments but that the legislation needs to be adapted to cyberspace. It was pointed out that open access to scientific knowledge was an essential element in the development process and therefore very important for developing countries. Creative Commons were mentioned in this context. There is also a discussion on open standards and free and open source software. It was pointed out that they may lower the barriers of entry and promote innovation. It was said that there is no contradiction between free and open source software and intellectual property. In the Tunis Agenda both models were seen as equally valuable having their own merits. With regard to the economic dimension, there was a discussion on market dominance and virtual monopolies and their relationship to openness and freedom of expression. And it was pointed out that the discussion we had in the IGF had a relationship to discussions held in WIPO and UNESCO.

**RONALDO LEMOS:**

It's clear that the openness topic is a pervasive topic in Internet governance, and with significant developments and questions related to access, diversity, and security. In its economic and regulatory dimension, the debate has made a point that different regimes of intellectual property either for software or for other components of the network, as well as the dissemination of open standards, might generate in the economic sphere distinctive opportunities for innovation and for the autonomous insertion of developing countries. The debate also pointed out that the new possibilities and challenges brought by the Internet must be considered in the debates vis-à-vis issues privacy rights, right to information, and the fight against criminality. Openness is an essential requisite for the freedom of expression, which is recognized as a human right and must be ensured on a global level. The Internet accommodates pluralism and cultural diversity and is essential, too, for both to be preserved and enhanced. The maintenance of an open Internet is an essential requisite for the fulfillment of the Internet potential.

## 7. Security

**Session Chairman:**

- **Mr. Antonio Tavares**, Representative of the Private Sector Brazilian Internet Steering Committee

**Moderator:**

- **Yoshinori Imai**, The Japan Broadcasting Corporation (NHK)

**Panellists:**

- **Ralf Bendrath**, Research Fellow, University of Bremen
- **Lamia Chaffai**, Director, Agence Tunisienne d'Internet, Tunisia
- **Huang Chengqing**, Secretary-General, Internet Society of China, Beijing
- **Marco Gercke**, Professor of Criminal Law, University of Cologne
- **Cristine Hoepers**, Leader, Brazilian CERT
- **Zahid Jamil**, Senior Partner, Jamil & Jamil Barristers-at-Law

**Discussants:**

- **Izumi Aizu**, Senior Research Fellow, Institute for InfoSocinomics (IIS), Kumon Center, Tama University
- **Anne Carblanc**, Principal Administrator, Information Computer and Communications Policy Division, OECD, Paris
- **Georg Greve**, President, Free Software Foundation Europe, Zurich
- **Malcolm Harbour**, Member, European Parliament
- **Katitza Rodriguez Pereda**, International Policy Fellow, Electronic Privacy Information Center

**YOSHINORI IMAI:**

I am a Japanese television presenter and I have a couple of questions that I may ask myself, too. How many of us feel very safe or secure when we are online every day? And how many of us who are operating organizations, running companies, feel secure about your business? I would say no one can say "yes." We are not safe at all. But we cannot live a day without the Internet. We Internet users are entitled to expect security. Here today, we are turning to the distinguished panelists, stakeholders on the panel, to satisfy our rightful demand, or at least show us convincing determination to take a lead in this war against cybercrimes. Now let me introduce you to the chairman of the session, Antonio Tavares who is on the board of the Brazilian Internet Steering Committee and known as one of the first entrepreneurs in Brazil to launch an ISP.

**ANTONIO TAVARES:**

Even if we know that security is in real life and in virtual life a constant preoccupation, we know there is never such a thing as total security. Throughout times, it has been proven that to improve security is like a race of cats and mice, or as the police say, criminals are always one step ahead of security agents. In virtual life, and especially in the Internet, it is not different. The dream of a world of purity was always just a dream, and we find daily difficulties today which are new and unthinkable that we have to stand up to with courage, creativity, technology, and, above all, with education. Often, several

segments of society, or even governments, present solution proposals, unfortunately, not always adequate in a world where the absence of frontiers, freedom and the plurality of points of view, habits, or opinions hardly afford hegemony. This is one of the reasons why very few people believe security problems can be solved with legislation, unless, of course, in what is new, in what proliferates in the network without precedent, like viruses, worms, et cetera, crimes that did not exist before. In Brazil, we can identify that more than 95% of crimes carried out on the Internet can be dealt within existing legislation. We are talking here about the criminal code in Brazil which dates back to 1940. Obviously, there is complementary legislation covering the evolution of crimes, so much of the crime in the Internet is already covered. We understand the Internet as a cooperative action for building a new society. And having faith in intense cooperation, we believe we can consolidate strong tools for communication, growth, and integration. Obviously, we must pay attention, because an increasing number of individuals and companies, because threats don't stop. We need a huge effort of education, because it's not enough to provide schools with computers and broadband. We need to prepare educators. No matter how much we want, parental control cannot be efficiently used yet, because very often, children and adolescents know a lot more than their parents. And they learn very quickly how to evade the filters brought in by browsers and parental control. It's not by chance that everywhere in the press, there's an international concern. The UN Secretary-General worries about the evolution of criminal organizations in terms of pedophilia and other cybercrimes that to put together strategies to change places and using fantastic economic resources to attain their goals, which are regrettable. All of us must be aware, we have to take care of the future of our children. A lot still has to be said about the struggle against child pornography and pedophilia. We cannot make way for crime. Firmly trusting security, we can see technical solutions coming to protect us, such as the DNSSec collaboration among governments and legal authorities are beginning to intensify. Together with technology, they will help us get to the point we all hope for.

RALF BENDRATH:

I'm from the University of Bremen, but I am not a techie. I'm a political scientist. My background is in security policy analysis. What is security in the first place? It's a very abstract concept. The most basic definition of security is that it's control over the future. That's by a German sociologist from the '60s in a standard book on security theory. The thing is, the future is always open. You can try to analyze some trends, but you know from the weather forecast that it's not always 100% clear what happens the next day. So we will never get 100% security. There will always be insecurities and uncertainties about what will happen tomorrow or next year. People who are active in the security field, especially security politicians, have a tendency to ask for more and more and more and more security measures, because there's always some uncertainty around the next corner. So what we have to do is to deliberately draw a line somewhere and decide when we have done enough for security and when we should focus on other issues. It is also a question of available resources like money, qualified personal etc. And security measures have to be balanced with other rights and values. The rather vague defined concept of "national security" is to some people in civil society is a scary term because human rights infringements are done under the excuse to protect of national security. Another point is that we see the use of the Internet in all kinds of conflicts among nations. One potential global governance and public-policy issue that could be addressed here is "arms control in cyberspace". As more nations are entering the virtual arms race and are setting up cyberattack units in their armies, there's a need for virtual arms control. Furthermore, from a perspective of technical network security it might be better to talk about reliability instead of security. You want the networks to be

up and running and the data and the packets to flow. Here the global governance aspect is more interaction and cooperation among the computer security and emergency response teams. However the political and legal aspect is not easy to define. In the Council of Europe Cybercrime Convention there are rather vague definitions for some categories which can be seen, under certain circumstances, as a crime, based on the individual intention. If you start criminalizing hacking tools which system administrators need for testing the security of their networks, then you might actually try to do something for security, but the unintended consequence is that you're less secure in the end.

**HUANG CHENGQUING:**

I'm the Secretary-General of the Internet Society of China. With the development of Internet and wider use of Internet, the Internet security and the work against spam will be a very important work and challenge, because the devil might climb faster than the user. We have to be united to face the challenge. Civil society and private sector have made good efforts, but the task ahead is tremendous. My suggestion would be the Internet security and the work against spam should be put on the agenda of all governments. In countering the threat to Internet I believe there should be a cooperation on two levels globally. First is cooperation at the government level. We are talking about administrative and judicial means to counter crimes. We need to have a fast channel to deal with all the cybercrimes. Another level is cooperation among private companies and civil society. Here we are talking about the operational level, about sharing information on spam as well as emergency measures dealing with security threats to the Internet. UN and ITU should play here an even bigger role. The view that government should keep the hands off of Internet is wrong, because we have to involve the government. Take China as an example. Spam in China in the first quarter of 2006 was 21% of the global spam. In March 2006, China announced the law on countering spam. And those who send spam will be subjected to certain kind of administrative measures which have won public acclaim. On the other hand, there's the working group on antispam in the Internet Society of China which has conducted effective work. They have conducted more than one million brochures for the public awareness campaign and also played kind of poker cards as to the educational means to counter spam. Private companies also join hands in producing a platform to counter spam. They have a system of black list and white list. In October this year China's spam only amounts to 4.9% of the global total, down 16%. However, phishing, Trojans, and also cyber attacks have gone up, far higher than the growth rate of the Internet. From June to July '07, we have an increase of 32% of users, and the stations have gone up by 66% and the mainframes have also gone up in a big number. Trojan attacks have also gone up a lot. All those security cases that have gone up that much, 34% of them originate from mainland China, and the rest originate from other parts of the world. One reason can be found in the hackers. In the past, they used to brag about their techniques, and now they are more have a commercial interest in mind. They have an industrial chain. And in face of that industrial chain, the legislative measures are lacking far behind. So they are not up to the task. Although the companies have done a tremendous amount of work, but international cooperation is not catching up yet. I believe this should deserve the attention of all and you and other bodies should play an even bigger role.

**MARCO GERCKE:**

It was pointed out in the beginning that it's questionable if legal standards will help us to fight effectively against cyber crime and security. I would nevertheless like to point out the importance of legal standards. We have excellent technical standards. We are using the same technology. And it's working. If you don't accept the technology, you cannot

communicate in that network. We don't have those standards with regard to laws. We don't have single legal standards at the moment, and that is causing a lot of trouble. The chairman pointed out that in most cases, there are sufficient substantive criminal law provisions. But the difficulty that we are facing is the fact that law enforcement agencies do need to cooperate, and that is something that is lacking. It does not help you if you have sufficient instruments in place if you cannot cooperate with other law enforcement agencies in a very quick level. Currently, we are still using traditional instruments that take weeks and months, and there's evidence that you might need to trace offenders back might be available for only minutes or hours. So we need to change that, and this is something we need to address. Currently we have only one international convention in place that addresses these difficulties which is the Convention on Cybercrime from the Council of Europe. This convention is signed by 43 states. And that's for sure not all in the world. And if you look at the signatures, you will realize that it is signed by countries that are well developed, that have very good technical infrastructure, and that realized how important legal basis and international cooperation is for them to protect their e-commerce businesses. So what was achieved by this convention already is that with having countries like the United States to ratify it, those countries that are providing services in the Internet, very important infrastructure services, are on board. And law enforcement agencies from anyplace in the world who have similar legal standards can actually contact them and cooperate with them in a very quick way. What the convention has not yet succeeded is to address more countries from developing countries. And in since 2005, the number of Internet users in developing countries is larger than the number of Internet users in highly developed countries. So what the plan for the future must be is to protect those users, to protect the potential victims from cyber crime and improve legislation there. In this context I would like to point out the work of the ITU that is addressing the challenges of developing countries all over the world by providing assistance, what they always did, to try to help them with standardization. We need to continue this in the future and get more people involved in this discussion. The main advantage on this convention is that it has a committee where all signature states participate and can continue to develop further legislation.

LAMIA CHAFFAI:

I am from the Tunis agency for the Internet. In Africa we want to use the opportunities provided to us by the Internet, digital economy, e-trade, etc but we need an environment of trust and confidence. It's very important to have an awareness and training concerning security. I will mention that Tunisia is the only country with a center to respond to incidents. It is the computer emergency response team, and we would like to see more countries adopt this kind of structure. It is, therefore, essential for us to optimize our resources so as not to become victims. If we ignore the risks of security existing in the Internet, we end up being a tool for attacks without intending to. All of this will be exploited by attacks. So it is necessary for the civil society and for the private sector and for regulators to be aware of this and adopt regulations and technical solutions. In the field of transactions, in Tunisia we have legislation on e-trade. We have a certifying agency using the public structure. And we also have a public infrastructure forum for Africa.

CRISTINE HOEPERS:

I come from a CERT. As an eastern response team we see all the problems during our day-to-day work. We help networks recover, to mitigate, to try to not have a big impact in the day-to-day attacks. And we try to do postmortem analysis and try to see what happened, what caused those problems, why we had this worm and that bot and that vulnerability, why we had that compromise, what is the actual biggest problem causing

all of this. And we are training people here to try to deal with this problem. I would like to say that most of the problems we have today are there for more than 20 years now. So we have some basic problems in the software development, we have some basic problems in the implementation of protocols. We can only solve these problems if we think about how we are going to prepare our next generation ICT professionals, how are universities today teaching about how to think about security when you are designing a system, how to think about security when you are implementing a system, a protocol or a standard. If they are poorly implemented, if they have problems and security problems in their coding, and in their design, we will still have problems, worms and someone trying to exploit the very technology that we are using to protect ourselves. So one of the things that I think we need to think about is how we introduce security mindset, how people who are in the engineering and computer science schools actually preparing our professionals for ICT, to think about security in the whole process, and not actually thinking about secure coding or secure development. There will be someone interested in attacking that. If people are for the very beginning taught to be security minded we can mitigate. We will not have a perfect world or perfect protocols but we will have less problems and maybe we can deal and manage better the problems that we have.

ZAHID JAMIL:

I come from Pakistan, I am a lawyer, and in my country, you must have seen in the news the terrorism, money laundering and all these things are an issue and the government is making efforts trying to fight those. I am going to give you a brief as to how cyber crime and the convention on cyber crime and legislation has an impact in developing countries. The example of Daniel Pearl, the US journalist who was unfortunately kidnapped and murdered in Pakistan, was an example where the only way investigation agencies could really trace down to find out who the kidnappers was to use cyber forensics. At that time, unfortunately, use of certain cyber crimes that were used as part of aiding and abetting this exercise were not crimes at that moment. So we had to come up with new legislation, I drafted the Electronic Transactions ordinance in 2002. But obviously that was not enough, and the government has been now trying to come up with the cyber crime law. We gave them the cyber crime convention as a model, and while this effort was going on, at the same time when I was in Athens, and I am focusing on the enhanced cooperation of the IGF and how important these sorts of meetings are, we were able to get the Council of Europe to get interested and involved in this process. That was excellent. It created capacity building, awareness, and also brought technical knowledge to many of the people. Interestingly enough it wasn't just government. It was business and civil society in Pakistan that were able to sort of talk with some knowledge about this issue and then lobby government. Various aspects about the balancing of openness against security, where is the right balance, looking at issues as liability of ISPs, cost of compliance, copyright infringement and the most important Article 15 of that convention, procedural safeguards, independent judicial supervision. But it was difficult to say, "Look, we are not in government. We're not policymakers, but we are business and civil society." So how did we make it happen? After a lot of lobbying, things still weren't being heard. What we actually did was put a lot of this stuff on YouTube. And the moment it went onto YouTube, a lot of what it means, not just the legal jargon, what it means to the common man, to an artist, to a journalist, to a media person, what does it mean to have this sort of Draconian legislation as it was in that form earlier and not comply with the Council of Europe convention, not comply with safeguards, and not have harmonious definitions. Obviously, that would not assist in the fight against cybercrime, fight against cyber terrorism. Those are the sort of things we came up with. And I think there you saw civil society in APC and ICC/BASIS really cooperate and come together. The harmonious

definitions are very important. The Council of Europe convention pretty much is the only document we have. We need to sort that there are things that can be done in addition to that. The Council of Europe outreach program going to countries and to get them to sign up and ratify, will be extremely important. Any other efforts to delay this by creating confusion, by saying "there are several other processes," will only delay the harmonious, effective fight against cyber terrorism and against cybercrimes.

From the floor:

Whenever there's a problem, the public demand more laws, more regulation. And the problem is that laws rarely prevent what they forbid. And the speed and penetration of the Internet means that a traditional approach can never keep up. So we must agree, that we need a cleverer approach. Too often, security is an add-on, and that's useless. Security and enterprise development must be developed together. That means that industry has to take the lead in tackling crime and nuisance on the Internet. But they have to do it in partnership with civil society and government. The way I put it is that, being accountable is the price for not having heavy and bureaucratic legislation and regulation. So the answer is not more laws, not legislation, it's cooperative governance. In the U.K., we're establishing a crime reduction partnership with industry lead, but overseen by the four-part governance of parliamentarians, civil society, NGOs, along with government and industry. And the focus has to be on the needs of citizens, on all users and their concerns.

MARCO GERCKE:

I would like to pick up one of the challenges that law enforcement agencies are actually currently facing to further develop what you just said. Take encryption technology. If as an offender, you're using encryption technology and you have a proper password, it is nearly impossible to break the encryption in an adequate time. So there are a number of possibilities how we can address that. We can have technical solutions or we can have legal solutions. And if we're talking about legal solutions, we need a balance. I'm very happy that you pointed out the UK because the UK has just undertaken legal measures that I cannot accept from a civil liberties perspective. What the U.K. has with the regulation of investigatory power of the third part has come into place and that allows law enforcement agencies to order anybody who is using encryption technology as the suspect of a crime to hand out the password. And if he refuses to cooperate, even though the law enforcement agencies are not able to prove that he committed a crime, he can be sent to justice by only refusing to cooperate and hand out the password. That's a legal approach where I can fully agree to your position, we don't need those laws. We don't need overregulation. But we need a legal basis. Take spam. The industry did not effectively fight against spam. Then we need at least the law to be able to prosecute those offenders. That's the last step. We don't need additional laws if there are laws in place. I don't want the Internet to be more regulated than outside the Internet. We have criminal laws in place outside the Internet, so I just want the same kind of protection inside the Internet. Finding this balance, we're in the process, we did not yet find it. When people in 30 years will look back, they might say, "Well, there were challenges, but you did too much. There was too much legislation in place."

From the floor:

I'm with Afiliias. I come from the operational and technical community, people who have basically been cooperating globally nonstop for several years. When we talk about establishing communication, when we talk about information-sharing, when we talk about problems, these already exist. My goal here is to try and find the regulators, the policymakers, and tell them I don't know how to talk to you. We have real problems. Our

problems are complete inability to work across borders, being back channels ourselves for law enforcement as well as we lack leadership. How can we communicate? A second point is how to deal with the emergence of large-scale attacks, such as in Estonia, and with the impact that these have on economies, how do you see that critical infrastructure changes and how do you believe this can be impacted when the infrastructure used for these attacks is basically the same infrastructure as cybercrime, and so far, we have been far behind and losing?

ZAHID JAMIL:

I would say three basic steps, which I can highlight: Number one, you need to reduce the safe havens that exist globally. This is to bring in harmonized legislation that criminalizes the acts. You have to get rid of competitive advantage in being in a different location which offers a favourable environment for criminal activities. Second point is awareness. Third point is better technology, encouraging business to find technical answers to stop criminals. Finally you need to train law enforcement and the judiciary. In most developing countries, you've here a serious problem. Relevant institutions are underfinanced and do not have the human capacity to meet the challenges of cybercrime.

IZUMI AIZU:

I have been on ICANN's At-Large Advisory Committee for more than four years to bring the individual users' voices to this ICANN process. We have to be careful in discussing cybercrime to find the right dimension and we have to have also the users perspective. 1.2 million people die annually in traffic accidents As far as I know, there is nobody killed on the Internet. I understand that we have to work on cybersecurity to get the bad guys who are stealing money and damaging soft and hardware via the Internet. But like in traffic the car drivers, half of the problem of cybercrime are the endusers themselves. What we need is more awareness, more education, more knowledge and more collaboration among the various stakeholders, from law enforcement, to business, to technical experts, to the individual end users.

MARCO GERCKE:

The example with traffic accidents is excellent from my point of view. I'm going to ask you another question. How many percent of US businesses do you think believe that the costs of the damages caused by cybercrime are more than by traditional crimes? It's 60%. I'm not a great fan of statistics when it comes to the Internet damages. But if you just have a look at the estimate losses caused by identity theft in the United States or by virus attacks just in the year 2003, which was more than \$10 billion US \$. I think we might come to the conclusion that not because only of protecting life and health, we need to ensure that we have sufficient laws in place. In the Council of Europe they are drafting recommendations for Internet medicine. There are many people dying because they're ordering medicine on the Internet which turns out to be fake products. Maybe you should include that in the statistics.

ANNE CARBLANC:

I work for the OECD. We are at the origin of this expression "developing a culture of security." The OECD does not develop binding instruments, especially in this area, but instruments that try to help develop a kind of new mindset so that people, all participants, will have a role in security. I noted that there's not 100% security which is possible. But we have security at different levels, which makes things difficult. There are legal, technical, educational responses. And cooperation is needed. Different models for

cooperation are possible, top-down, bottom-up, a mix of both, very inclusive, all participants, less inclusive, led by governments, collaborative with governments, business, and civil society. So could the panel tell us what they think the best model would be to ensure security more than today to reduce cyber criminality online and to enhance trust.

CRISTINE HOEPERS:

One of the things that we see today is that you have some societies that are, like, fighting antiphishing, and then they're doing the same things that some organizations that are fighting spam, and then they are doing the same things that the CERTs are doing. One of the things that I would suggest is, someone needs to look out there and to see where is the gap. If we have already a lot of people cooperating into the technical level and cooperating to fight phishing or spam or trying to come up with that, that probably is the gap. We have a lot of people cooperating on the political level and on the technical level, but we need a link between that. We need awareness and we have to speak the same language.

RALF BENDRATH:

I got a bit confused here with the example of medicine sold online and people may be dying because of that was bought. I'm not sure if that's really an example of cybercrime. That's an existence of a black market for medicine or fake medicine. That's a completely different problem. The same, I would say, is true for child pornography. The problem with child pornography is that there are children that are exploited, and really, really evil and ugly things happen to them. But it's not because of the Internet, and it's not a specific Internet problem. We had similar discussions at WSIS when there was some language introduced on money laundering for terrorist purposes. We in civil society said this is not really a problem for governance, it's a problem for oversight, and there are already structures for that. I'm a bit afraid that when crime that's happening offline for ages is now defined as a cybercrime and lead to a call for new legislation.

MARCO GERCKE:

I would agree. Selling fake medicine over the Internet is not a cybercrime. It's like I've recently heard somebody saying in the news that it's a cybercrime if you hit somebody with a keyboard. For sure not. What we have to take into consideration is the fact that the Internet enables a number of ways of distribution that we do not have in the real world. It's possible now to hide your identity in a different way. We need different instruments and we need to address those challenges. We don't need new laws in that case. When we talk about medicine, we just have to take into consideration that it is not the regular ways of distribution only, but it is done on the Internet. So we are talking about illegal content. We should just ensure that we are able to address those offenses in the Internet. And some countries, especially those with an old legal tradition, do not have those instruments in place in the moment. They sometimes really focus on tangible items, what we don't have in the Internet.

From the floor:

In a multistakeholder preparatory meeting held in London last month, security was identified almost unanimously as the most important of the IGF themes for a UK audience. The discussions focused on security as meaning trust and confidence in online commercial transactions.

ZAHID JAMIL:

That is a rather narrow definition of what security might mean. I think for developing countries security could mean a whole lot of other things. It's not just that particular aspect. In my view obviously the legislation is an aspect, international, cooperation is an aspect, making sure that you have standards in the business community itself to be able to self-regulate as an addition to that. The structures of NICs in themselves would come into play.

LAMIA CHAFFAI:

I would like to speak about the concept of security. That it's a question of protecting, protecting the whole system, individuals, banks, businesses, networks of a country, or even on the international level. This is an issue of losses which can come from the attacks that come from the viruses or identity theft in the country. It is absolutely essential to have a local national strategy. There must be awareness about the importance of the issue of security, in government, private sector and civil society. You have three partners together that we will be able to achieve the objective of security. In Tunisia, we work a lot in training security auditors. You must have skills to do the audit of systems and to ensure the health of the networks and applications in order to be sure that we are protecting all of the wealth of information we have.

HUANG CHENGQING:

My understanding is that security is a kind of a balance. I believe that security is relative. Prevention before the event is a necessary condition. It's not sufficient, especially in terms of cyber security. Prevention is very important in adopting technical measures and legal measures. And these are necessary conditions and not sufficient conditions. We need to establish in cases of events emergency response mechanisms to keep the damage to the minimum. There are two levels. First the prevention before the event and also how to have the solution to solve the problem when the event has taken place.

GEORG GREVE:

In my experience, transparency is one of the ultimate factors to security, because while security through obscurity may seem logical, it is a fundamentally flawed concept. We can show this through mathematics. Somebody has proven that a system that relies on secrecy for its security is inherently less secure. But you can also explain this in normal human speech. Think about a lock and a key. When you have transparency in the technology, in the design, you are discussing in a transparent and open way how to design a lock, how to create a locking mechanism so we can create the best locking mechanism and we can find the flaws it has to fix them. That does not necessarily mean we hand out the key to the lock we put into our houses. And that hooks into the procedural issue, because in order to be able to engage in this process of fixing the mechanism, we must create awareness for this, ultimately from the early start on. We don't want to redo the whole lock after finding out that our design was fundamentally flawed. And the second part is about control, about control of the software we are running, because ultimately, the Internet, every application, our operating systems, all of this is software. If we do not have control over the software, we cannot control our environment. That is why free software, software that has the fundamental four freedoms to use, study, modify and distribute, that gives it to all users, is the most sustainable choice in the long run because you can never lose the control over the software.

ZAHID JAMIL:

This is the open source argument and the argument that open source is the only secure mechanism of having security. First of all, I don't know about the analogy starting with the whole preconceived notion that if something is broken. I think we are evolving. Yes, we need solutions to problems that arise on a daily basis. From a developing country point of view, we are, like India, China and others, approaching a stage where we would like outsourcing to come to our country. We would like to be able to develop software. And so the next stage in the 21st century is not about industries alone. It is going to be about innovation. The countries that innovate are going to be able to grow economically. In order to make that happen, innovation has to be protected as well. It is a vested interest from a developing country. It is a very important aspect that the intellectual property rights to software should be protected. Open source is not the only solution. It can be a solution for certain aspects but not the only solution. And that does not mean we should get rid of proprietary software. I know also that there are a lot of policies being developed by governments for open source. But basically what they end up doing is ensuring that those proprietary softwares which could be offered to those countries, which are also secure, maybe of a better quality also, sometimes, cannot even participate in those tenders. That's a way of keeping people out. When you keep people out and you keep best practices out from growing economies, what ends up happening is we don't learn from that. And technical assistance and quality doesn't come to those countries sometimes. And I have seen that happen sometimes in my country's bidding.

**RALF BENDRATH:**

With regard to the relationship between security and transparency you can even take that analogy further. We, from the privacy community are, of course, very afraid of overly intrusive and overly broad surveillance mechanisms because many of those are not transparent. That's not especially related to cyber crime and Internet security, but of course a lot data collection on individuals and profiling and so on happens because they go to the Internet and do stuff there and leave the data there. And then you sometimes get a higher interest rate for your consumer credit. Some people end up on no-fly lists. Sometimes Spam. And people don't know why this is the case and how they can prevent it, what they can do about it, because a lot of these mechanisms are not transparent and are not open. And that's the asymmetry that's created if you address security problems by earlier surveillance, because most surveillance schemes are not transparent.

**MARCO GERCKE:**

Technical solutions can be a solution for the challenges that we are facing with regard to security. No question. But I think that open source as the only solution is from my point of view, not right. If we would get somebody from Microsoft to stand here next to you, he would have given us so many good arrangements for keeping those mechanisms secret. I mean, if we're looking at the Internet infrastructure and we look at the servers, I mean, I don't want to offend Microsoft, but I have my doubts that many of them are working with a Microsoft operating system. We're using Linux for them. And nevertheless we are facing difficulties So open software is for sure something we need to discuss. But with regard to security as a main arrangement, I find it pretty difficult.

**LAMIA CHAFFAI:**

There is a problem with security related to products delivered to consumers. There are new standards and assessment methodology adopted by several countries in the world. And this allows for an assessment of the level of security of a hardware or software product. Well, the adoption of these methodologies is costly. The country needs to have

assessment laboratories according to methodologies that are difficult, especially if we want to have high security. And for developing countries, for instance, it's very difficult nowadays to be able to have the assessment of a product to be recognized and sold at the international level.

From the floor:

I am from the ITU. I've heard a lot about what ITU should do and what ITU shouldn't do. Our colleague from Pakistan should know that this is not the venue or the forum to discuss the mandate of ITU. And ITU has never mentioned that it is going to regulate the Internet. You should focus on the areas where you have competence and leave intergovernmental politics to those who can deal with it.

ZAHID JAMIL:

Maybe there's a misunderstanding. There was a comment made earlier today that the ITU should regulate. Somebody in a panel proposed that ITU should regulate the Internet. And I was responding to that saying that the ITU's mandate is not to regulate.

MALCOLM HARBOUR:

I'm a member of the European parliament. One thing that we wouldn't dispute that the use of the Internet for certain types of criminal activities has made them easier, but, more importantly it's moved them onto an international scale in a way that we've never seen before. And, therefore, we need some common defined standards and the possibilities to prosecute and deal with people across borders. The fact remains is, you've got to catch them in the first place. We need to continue to step up our international collaborative efforts at the operational level. It's all very well having a harmonized legal system. But if you haven't actually got the information and speedy flows of information to deal and stop criminal activities, no matter how many wonderful legal provisions you have in place, you're never going to catch anybody. This is the most crucial area. And there are a number of initiatives being taken, things like the London agreement, which hasn't been discussed very much here. But it seems to me that the international community needs to step up its operational collaboration, its reporting systems, its computer emergency response teams. And those are sort of the imperatives that we at a political level, members of parliament, are entitled to ask for that to be stepped up. But, of course, I think there are broader and more critical issues to be dealt with, because we all know that our societies in all countries, certainly in developed economies more so than others, are becoming entirely reliant on resilient resilient and secure information technology networks. We had a little analogy earlier on, a bit of a debate about how important Internet security is in terms of personal health and welfare. I mean, all I would say is that if somebody determinedly attacked the air traffic control system in any one region and managed to disable it for half an hour, we would be facing an extremely dangerous situation. So the critical security, the critical infrastructure does need to be protected. And that's an area where we also need to step up more international collaboration. And where do we need the redundancies? Where are the weak spots? There's a lot of collaboration going on. It's not something that will be done publicly and very transparently because we don't necessarily want people to know about that. But, again, I think we are entitled to ask for that to be stepped up. And those who have studied what went on in Estonia, a member of the European Union, the cyber attack there, will see exactly what sort of damage can potentially be done to an economy unless we have those sort of resilience measures in place.

KATITZA RODRIGUEZ PEREDA:

I am international policy fellow of the Electronic Privacy Information Center and a DiploFoundation fellow. Security cannot exist if there is no privacy. We need security with privacy. Personal data are becoming very important. These data tell about consumption standards or behaviour patterns. Here a lot of violations to individual rights can happen. Several systems allow lots of personal data to give away to third parties. Unfortunately, in Peru, many data banks are in the black market, with our names, addresses, salaries, driving license number, et cetera. So I wonder, wouldn't this allow for identity theft and shouldn't the state approve data protection laws and take care of the enforcement of the law?

ZAHID JAMIL:

As a developing country, I completely agree with you. We need to rethink our legislation and our government's role in this. In my country in Pakistan the national data registration authority actually sells that data to people who would like to buy it. It's a major privacy issue. Actually, at the moment, I'm working on legislation to deal with these privacy issues.

MARCO GERCKE:

I think in Europe, the situation might be different. We can start concentrating on other aspects apart from law. The case of the cyberattacks at Estonia is one example how to analyze technical issues and try to prevent that. But when it comes to developing countries, the situation is different, because what does it help you if you can technically trace things down if you cannot fight against those offenders based in your country that are actually responsible for that? The classic example is the Philippines, where the national experts tell us they were technically able to trace the criminals back, but were not able to prosecute them. So the legal point is essential as well. I'm highly appreciating the ITU approach to address the specific problems of developing countries, with cybersecurity and cybercrime guides. The educational aspect is, especially in those countries, very important as well.

From the floor:

I am from the Ministry of External Relations of the Russian Federation. Today we spoke about the various levels of information security, and I would like to elaborate on this a little, talking about the international security. Obviously, nowadays, there is a threat to security which is not just a cybernetic crime. States and users of the Internet need security. Since we are talking about states and acts of aggression, we have to consider national and international security as well as stability. The importance of this international security was confirmed in the 62nd session of the UN General Assembly when there was a unanimous vote on a proposal by Russia as to how to have security for information at international level. And this confirms that international security and Internet security, which is a very important part of it, they have a technical, a political and a military aspect. The whole thing has to be considered en bloc. And we have to underline in this respect the importance of the group of government experts of the United Nations. And they have a mandate to continue the studies on the existing and potential threats in the field of information security. The preparation of an international approach in the field of security for information will allow us to simplify the work of international organisms that don't exist right now and should exist. There should be international agreements on the subject.

From the floor:

I am from NTT Data, representing Japan Business Federation, Nippon Keidanren. From

the perspective of business companies over-regulation is the biggest point. We have to find a right balance between needed governmental regulation and industry self-regulation to strengthen security.

From the floor:

One African country is well-known as an originator of spamming attacks. It has put in place a structure and a strategy to fight against this sort of criminality. However, results are still not yet there. So my question here to our panelists would be what form of sort of international collaboration we could put together to assist such a country? And also, to which extent this IGF process could actually facilitate this.

**RALF BENDRATH:**

There is a clear correlation if you look at the landscape of identity theft as one important cyber crime and the privacy legislation. In countries where there's strong privacy legislation the problem of identity theft is much, much smaller. That's a very easy solution, and as much as people here promote the spread of cybercrime legislation around the world. I would say if you want to do something against identity theft, you need to spread privacy regulation and legislation around the world. There is no global mechanism for this. And this is maybe a problem. The other point is the risk for critical public infrastructure. It was a bit overhyped in the '90s with lots of scenarios about electronic Pearl Harbor and hackers having more power at their fingertips than the nuclear bomb commander. You have to be a bit sober about this. However, the only real solution to have security here is to disconnect these systems from the Internet. Once you connect these kind of systems or even power plants and so on to the Internet, you are in trouble.

**MARCO GERCKE:**

I have immediately to react to that. Take a virus attack. If you are successful in sending out a virus and that affects the computer system of the check-in at an airport, you can maybe disconnect the tower from the Internet. But it can affect the computers at check-in and that means you cannot check in anymore. We have seen while analyzing virus and worm attacks that it affected an infrastructure. It might be that virus attacks are not that much focused, that they cannot really focus on one target as well as other attacks would be, but it is a great danger. We should have instruments in place apart from disconnecting part of our infrastructure from the Internet to secure it. But I would like to concentrate on another issue raised by our colleague from Japan, how industry should act in this difficult field. I am currently co-chairing a working group from the Council of Europe on the question how should the industry and law enforcement agencies cooperate. From my point of view, soft laws recommendations are the one thing. But, on the other hand, I would like to have hard laws that are protecting service providers from responsibility where they simply cannot be made responsible. And I think it is a fundamental decision that we have to make. In the past the decision was made in a number of countries that simply said we have to exclude certain service and infrastructure providers from responsibility. From a technical point of view, the situation might have changed. So maybe today they have the possibility of controlling. But the question that we now have to raise is not only do they have the capacity of controlling and can we make them responsible for that? It is the question do we want them to control. I would prefer to have hard solutions because what I am realizing is we're criminalizing preparatory acts. We are criminalizing the production of devices that can be used to commit a crime. We are not waiting until the crime is committed anymore. We say we start earlier and that is something I find very dangerous. We should not go this any further. We should try to limit us in that way and try to concentrate against crime

that has already happened. So they have a responsibility as well.

HUANG CHENGQING:

A comment on the security of the critical infrastructure of net. I think there are two levels of security to handle. First of all, those critical infrastructures will adopt some measures to prevent such crime. Due to the openness of the net, some cyber threats cannot be handled by them. Therefore, the national backbone network and the critical infrastructure should be separated, like the prevention of disease just should be an emergency response team to deal with that. As the Internet is an open network, it has no boundaries. Therefore, we need cooperation to those terminal network events which are a set of market mechanism to solve them. Therefore, two mechanism. One is to rely on the industry. The other is the backbone infrastructure. The government should include them in their public service so as to guarantee their security. When the cyber crimes occur, laws should be in place to attack them. If there is no final defense line, or efforts will be in vain. I have mentioned that the work of the government is a necessary condition, but is not a comprehensive measure. Therefore, whenever the crimes occur, there should be legal measures in place to attack them.

CRISTINE HOEPERS:

I was talking this morning to some countries in Africa, and I was extending them an invitation that one of the best ways would be to actually look for countries, to look for information how other countries managed to create the CERTs how they interact with their own private sectors, their own public sectors. And one of the things that the Internet Steering Committee is already doing is to share and help some African countries with the top-level domain name and registrations. And we would be happy to help some people to help start their CERTs or to share information and share the experience on how we got from the point that we had no the CERT and to the point where we have an operational team interacting with teams inside the country. So it's really typical, in Brazil we started under the umbrella of the Internet Steering Committee that is a multistakeholder organization. So we can talk to all the sectors and we can actually receive feedback from the sectors. But each company needs to look for other countries and try to find out what would be the best model. And we would be happy to help people understand how we work in Brazil and to help you to establish your teams also. Start slowly but start cooperating and sharing information at least on how to establish your own capabilities.

ZAHID JAMIL:

Responding to Russia's comment which said there was a need for international security and consequently for international agreements. That is a great suggestion from Russia. It's time that Russia, therefore, joined in and signed the Council of Europe convention on cyber crimes.

YOSHINORI IMAI:

Lets come now to the final remarks for the secretary and the chairman.

MARKUS KUMMER:

Our division of labor is that the chairman can give his personal conclusions, whereas I was tasked with trying to attempt to summarize the discussion. we had a very rich discussion, but also a very complicated and complex discussion. We saw in the access discussion that access is normally seen as the single most important issue by many countries, of course, by those, in particular, who don't have access, whereas countries

where access is not an issue anymore, then security takes first place. The issue certainly is a multidimensional issue. Multistakeholder involvement and multistakeholder cooperation seem to be essential ingredients if you are trying to find a solution. One of the problems is that we don't actually have an agreement what we mean when we talk about security in the IGF context. We have a vague notion. And it is a fairly broad approach. One speaker referred to the control over the future and said that this was never 100% possible, as we don't know what the future will bring. Several elements were mentioned -- national security, network security, the reliability of networks, also the issue of preventing before the event, and finding solutions after the event, also the resilient and secure networks were mentioned as key in this debate. An important part of the discussion evolved around the legal dimension. We had agreement that online and offline should not be treated differently. A crime is a crime. Our chairman mentioned at the beginning that 95% of the crimes committed online were covered by existing legislation. But several speakers pointed out that while legislation may exist, that the borderless nature of the Internet made cooperation among law enforcement extremely difficult. And law enforcement, therefore, was an issue that needs to be looked at. There are different approaches to this between hard law and soft law. There was a strong call for harmonizing legislation and also for bringing in new legal instruments that apply in particular to the online world, and there the Council of Europe Convention on Cybercrime was mentioned. But there was also a warning against overregulation. While everybody agrees that there needs to be some kind of legal basis, many speakers pointed out that we should not overregulate, and collaborative efforts of cooperation below the level of regulation could be sufficient. Echoing this morning's discussion on openness, it was pointed out the role of the ISPs as a very crucial element. One speaker called for laws to protect them. I think the liability of the ISPs seems to be an issue that needs to be considered further. In terms of soft law solution, the representative of the OECD pointed to the OECD guidelines in these various fields. As regards the technical dimension one of the questions asked what we should look at the source of the problem, raising awareness, human resource development, training people to handle the problem, part of the solutions, and also the need to think about security when designing and implementing, and to think about security also in the whole process. As the OECD representative pointed out, the culture of cybersecurity is relevant in this context. There was a discussion on what type of software was best suited. And there were clearly different views held. It was mentioned that transparency should be a key factor and that security through obscurity is a flawed concept and that open systems and designs that can be audited are more secure. However, other speakers held different views. And one speaker pointed out that, from a developing country perspective, where designers were interested in developing a new system, we should think of protecting the intellectual property rights, and therefore proprietary solutions were equally valid. And that was echoed also by another speaker, who said it was not clear whether nonproprietary or proprietary systems were better suited to tackle the problem. It was also pointed out that in the search for collaboration, international collaboration, there were also problems related to financial limitations. It was pointed out the training of law enforcement and also of judiciary. The connection, of course, was also made between security issues and human rights and privacy. And the point was made that developing privacy laws was actually a contribution to enhancing security.

ANTONIO TAVARES:

We started the presentation of panel members with a comment in the sense that security is control over the future. Control over what future? Are we talking about the future of mankind? The future of technology? The specific future of the Internet? And what can the Internet do without human beings? We need to bear in mind that capacity

for countries, cultures, habits, and people to relate in order to attain a future where we should really be in harmony. As I said in the beginning, we can see here different opinions. We have spoken about crimes against children, cyber pornography, all the way to the kidnapping of journalists, political subjects, and very sensitive subjects for mankind. We certainly need to continue these discussions, because they will help us to take care of human rights and security, take care of human beings in the field of communication. And the issue of the Internet, besides the stability, integrity, and reliability of its content and protection of users, combating cybercrime, and adopting legislation, all of this is essential for the building of an information society centered on people, on human beings, because they are the most important element in this network. We have to recognize that all these issues are interrelated in a democratic context. The combat against cybercrime must take into account the required respect for individual rights and right to privacy. Counting on the support of the civil society and of the industry, the governments have a fundamental role to establish the Internet as a safe space for human interaction, giving adequate reliability to communications, to e-trade, and to service provision over the net. In view of the transnational nature of cybercrime, technical cooperation, as well as legal, police, and administrative cooperations, are essential for the harmonization of international norms on Internet safety. And this has to take into account the features of each country and of the developing and the developed world. In terms of security, the dynamic nature of the Internet requires agile tools and the constant updating of methods, as well as intense cooperation and the adoption of preventive steps, without losing sight of each country, each culture, each nation. The multiplicity of aspects raised here by the speakers, the discussants, and the public show that this topic deserves priority attention.

## 8. Taking Stock

### Session Chairmen:

- **Nitin Desai**, the United Nations Secretary-General's Special Adviser for Internet Governance
- **Hadil da Rocha Vianna**, Minister, Director for Scientific and Technological Affairs, Ministry of Foreign Affairs

### HADIL DA ROCHA VIANNA:

I would just like to say that I consider this session one of the most important ones in our Rio meeting. It has to do with the work already done, it has to do with the perspectives of IGF work. It includes the role of our multistakeholder advisory group. I would like to offer very brief personal remarks on IGF current achievements and on what I believe should be the way forward. At the outset, it is worth recalling that the IGF was conceived as a space for multistakeholder dialogue, for the debate of cross-cutting public policy issue. For the facilitation of discourse between organizations responsible for different aspects of Internet governance. For the identification of emerging issues, for bringing these issues to the attention of the public and for making recommendations when appropriate. The IGF should meet for an initial series of five sessions and balanced geographic representation should be observed both in its convening and in the constitution of its supporting structure. I am pleased to note that a great deal of this

mandate has been achieved up to the second meeting. And I am confident that the IGF will be able to fulfill it in all aspects until 2010. I am also confident that the IGF will prove to be a fruitful experience. In Athens, one of the innovative elements of IGF mandate was fully accomplished. A numerous audience held deep discussions on high-level issues such as openness and security aspects of Internet governance in a truly multistakeholder environment. Rio built upon the experience accumulated by providing a main session dedicated to the debate on Internet critical resources as established in Tunis Agenda, paragraph 72j. Rio also represented a further step towards the fulfillment of the IGF mandate as far as the number of participants is concerned. More than 1,300 participants from 109 countries, across all stakeholders. Another innovation worth mentioning was the connection of workshops with issues targeted in the main sessions and collusion of open for a and best practice fora in the program of the second IGF. As we all expected, Rio proved to be Athens plus. The present session should debate on the incremental evolution on the IGF. It should also suggest targets to be met during the preparatory process for the convening of the next meeting in India. Rio then would have helped Delhi to be Rio plus. In this sense I would like to point out some innovations that I think could bring us closer to the full accomplishment of the IGF mandate. Tunis Agenda paragraph 72f states that the IGF should strengthen and enhance the engagement of stakeholders in existing and/or future Internet governance mechanisms, particularly those from developing countries. Taking this goal into account, the adoption of financial and other mechanisms to stimulate the participation of representatives from developing countries in all stakeholder groups could be considered. I am convinced that this balance should also be observed in the structure that will advise the UN secretary-general in the preparation of the 3<sup>rd</sup> IGF. To conclude, I would like to point out that the respect for balanced geographic representation and the participation of representatives from both developed and developing countries within in stakeholder group is essential for the legitimacy of any action that the IGF may recommend to the international community. In this context, I recall that the WSIS process envisages a multilateral, transparent and democratic Internet governance model involving all stakeholders and their respective roles.

#### BERTRAND DE LA CHAPELLE:

It was a very good IGF. I would mention two dimensions: One on themes and issues, and the other one on methodology. On themes we initiated a new thread on critical internet resources. The main lesson I can take from this is the way we interacted. People are stepping back a little from the traditional fight on those issues, and they begin to consider those very delicate, important and contentious issues not as a fight among us, but as a common problem we have to address. This is an encouraging element. The second thing is the thread around Internet rights in general. We had workshops and dynamic coalitions on freedom of expression, privacy, cyber crime and on the Internet Bill of Right. This thread that is becoming a general question, and this means addressing the implementation and enforcement of existing rights and also the balance of the different tools to do this, and also the formalization of some new different types of rights, related to the infrastructure. Now on methodology. We are touching on a very interesting element with the interaction among workshops and the plenary. Using the main sessions to present more thoroughly the feedback from the workshops might be an interesting avenue to explore. And in that respect, we attach great importance to this innovation of the dynamic coalitions. We consider in particular that they have been, almost by accident, very useful in shaping the workshops and I believe the workshops are even better, more coherent, than the ones in Athens mostly because the ones among co-sponsors and participants has been prepared within the dynamic coalitions in an almost informal manner. It is likely to be going on further in the future. The dynamic

coalitions in that respect might be a useful tool for this in the future as well as for intersessional work. Finally the IGF is still a very innovative and fragile experiment. And we may have frustrations about what it should be. But just take into account the fact that if each of us is frustrated, this means we're going to the right direction. If some were very satisfied, I would be very afraid, because this would mean that it is biased. The key question is how do we navigate the critical path forward between two dangers: too much informality or too rigid structure too early. It's a very narrow path but it's just like a boat sailing out of a harbor. You go slower when you start and then afterwards you accelerate.

FATIMA SEYE SYLLA:

I am the chair of the coordinator of ASCIS in Senegal. ASCIS is the African civil society organization dealing with the civil society. I am also a member of ICANNs At Large Advisory Committee. As an African woman involved in the struggle against the digital divide, I will focus my comments on a point which I find essential for Africa's participation in Internet governance. I am referring to access, because I believe that you cannot get involved in the governance of something which doesn't exist or almost doesn't exist. It's now time to start implementing the WSIS goals with more active participation by Africa, because only Africa can defend Africa's interests. In this spirit the recent Kigali meeting on Connecting Africa showed that access is vital for Africa's participation in Internet governance. Let me just remind you of a few commitments made by the African community to get access to Internet. First of all, we need to develop backbone infrastructure and access networks in order to interconnect all African capitals through broadband by 2012. All African villages need to be connected up by 2015. Human capacity building, production of adapted local content and services through a participatory process We need teleservices and content in local languages. We need to develop a regulatory and policy framework at the national, subregional and regional levels which will be investment friendly for the well-being of our peoples. During the Kigali summit commitments were made by the consortium for 50 billion over five years. The World Bank committed 2 million. But of course to have access to those funds we need to put forward projects. How are we going to do that as Africans? We need more public-private partnerships. But unless they are drawn up and implemented by Africans themselves, sustainability will always be a problem because these projects will never be owned by the people themselves. I would therefore recommend that African civil society should continue to play an important role, not just in strategy setting and in developing plans of action but also in project implementation. Almost everybody agrees on giving access to the underprivileged, on awareness, promotion, access points, capacity building, financial resources etc. But the difference in Africa is in Africa's own resources that are mobilizable. Government, civil society and the partners need to come up with specific action in order to put their actions into practice in order to promote access in Africa. One thing that can be done immediately by each of the countries in Africa by the various stakeholders without help from outside is to start building on our own capacities, wherever they may be found. We have the necessary local human resources to do that in Africa. For the financing mechanisms as well. We have the digital solidarity fund, and I believe that African countries can demonstrate their commitment by contributing to that fund and by undertaking action by themselves. It's just a matter of will and determination by our policymakers and decision-makers. The friends of Africa would be all the happier to work with us for a better world if we were to do that. In conclusion, let me once again repeat an appeal already made to our political decision-makers and to the international community. You must give civil society its due role in building the Information Society in order to improve the living conditions of our peoples.

JUAN CARLOS SOLINES:

We made progress because we broadened our multistakeholder approach and there was a civilized confrontation of ideas and positions. So we made progress because our audience has increased, there are more young people, activists, researchers involved in our work. We made progress because the workshops and the dynamic coalitions dealt with concrete topics clearly related to the governance coverage of the Internet. But this is not enough. To stop would be to go backwards. The IGF is a five years process without a precedent and it responds to a revolutionary reality which is unique and marvelous and I say potentially because the impact of telecommunications still don't reach everyone in the world. What we have now is not yet a more inclusive and democratic infomatic society. The principles of the Internet, multisectoriality contained in the Geneva Declaration are not a goal but a philosophy, an attitude and a dynamic way of living. If we became more democratic in Rio, we should become even more democratic in New Delhi and we should become even more transparent. In the coming months our true challenge is to get closer to people and understand what people need to benefit from the technology and knowledge. And we have to ask ourselves if our organizations represent the interests and concerns not of our staff, but, rather, the of the communities we serve and for whom we have to work. There will always be room for improvement, but changes must be the result of reflection and analysis, and all players should be consulted for these adoptions. We shall try to consolidate other principles, such as alternability, plurality, and meritocracy. This is the only way we will be more transparent. If we use electronic means to allow for the participation of people, we must now worry that all of them should use the tools, should know how Wiki works, they should access webcast, and they should simply reply e-mail. If they don't do that, we have to work to understand their reasons. And only by working on this we can become more democratic. We shouldn't just have sectorial, regional, and gender balance. First and foremost, we have to have a balance on visions. Finally, new topics in this forum emerged relevant for public policies. Public policies are dynamic. But beyond the quest for the public good, we must constantly look for the public values. What public values do we want to have in a globalized world?

JEANETTE HOFMANN:

There's always room for improvement. The first concerns gender balance. I'm sure most of you must have noticed this, there has been a striking discrepancy between the share of women in the audience and the share of women on the panels. There have been quite a few panels where there was not one single woman included. Can't we do better? The IGF is supposed to be an innovative space. This should also include the diversity of experts we invite to our panels. Second point is diversity of stakeholders. I think we are doing quite well in terms of including several stakeholders in the organization of workshops and also in terms of including them on the panels. But this does not always mean that we also have a diversity of views. Several stakeholders can still have the same opinion. My sense is we should be more courageous and not be afraid of diversity of opinions, and make sure in the following years that we also invite people with different opinions. My third point concerns some complaining and moaning I've heard over the last days about lack of structure, too many workshops, too much duplication between workshops, and overlapping topics. First of all, I think what is very positive is that most of the workshops attracted a big audience, and people really stayed and asked questions and contributed. What we've seen this year is much more emphasis on the workshops than on the main sessions. People are interested in discussing details and specific points. It's really a working atmosphere we've seen here, and this is really good. When it comes to lack of structure in the workshop space, this might be an

unavoidable consequence of the great freedom that comes together with this bottom-up process of suggesting workshops from several people. We might take for granted something that is so unusual in the UN's whole structure, that we can propose topics, that we can propose speakers and really discuss the issues we find interesting. History shows that most organizations over time show a tendency of ossification. The longer an organization or process exists, the more difficult it is to change the process. So far, we still enjoy a lot of freedom in terms of discussing new structures and formats and new topics.

ART REILLY:

This is a very unique UN forum. The IGF is one of the few places within the UN system where one can see representatives from civil society, business, governments, intergovernmental organizations, the Internet community, working together on an equal footing in the type of intense, substantive, and frequently very candid discussions that we witnessed this week on an expanding array of issues. This inclusive and egalitarian, multistakeholder IGF structure, agreed to at WSIS, reflects the real world of the Internet, and thus is critical to the IGF's continuing success. WSIS and IGF have the objectives to bring the benefits of the information society to people around the world and build a more inclusive, people-centric information society. Consequently, the success of the IGF and its collection of activities of all the stakeholders cannot be overstated. In taking stock and in considering the path forward, the open, transparent, multistakeholder, and democratic properties of the IGF are an imperative. People and organizations will have now a chance to carefully assess the significance of what they learned here and how it applies to them and their organization and activities. They hopefully can lead to the additional ideas as to how the IGF can be improved to promote a more inclusive information society at the global, regional, national, and local levels. To assist in this, one thing that I might recommend is the contribution by the ICC BASIS which outlined a number of questions that might be helpful in each of us doing our assessments back home. We are only in the midst of the second IGF, and the full impact of the Rio IGF has not been realized. Instead, evaluation discussions should take place. There is a special role for Multistakeholder Advisory Group (MAG). The MAG is a valuable, cost-effective, and very flexible resource not only for providing advice in the preparation of the IGF program, but also in assistance to the IGF operation. I applaud the efforts of the IGF advisory group and the secretariat in working with our Brazilian hosts towards the success of this IGF and look forward to New Delhi and IGF number 3.

COLIN OLIVER:

I was able to participate in some interesting areas, such as malware and child protection, issues that are in the newspapers at home. And as a government official, I have to say, governments pay attention to what is in the newspapers. For us, it is access in the rural areas, child safety, security, privacy. This 2<sup>nd</sup> IGF has seen people coming with a much clearer set of common expectations than we had in Athens, where many of us came with divergent expectations. That led to a certain amount of excitement as we worked things out. We've enjoyed more of a common form of discourse, with less cross-communication. And that's a positive. On the negative side, there's also a danger as we settle down that things become a little stale. So we need to think about that in preparation for the third meeting. When I'm talking with people about how to be involved in the IGF, I always encourage them to think in terms not of making policy statements or demands, but of making contributions. To my mind, the success formula of the IGF is: contributions in, collaboration out. Have we seen any change at this meeting? And should we monitor that more closely? Government could be certainly more engaged. And perhaps we have the same with the private sector. This needs

encouragement. And I wonder if we could do more to encourage more private sector participation, not just from developed countries, but also from developing; not just from suppliers, but also from users. Uptake of the Internet is often led by businesses in both developed and developing countries. I'm not sure that we really engage with that as we should. For some people, ICANN issues are central. For others, it is security or access, or child protection, or privacy, or freedom of expression, technology, academic research, or something else. In fact, I would say there's even a group of specialists who actually specialized in IGF processes. And that's a little bit worrying. Can we manage better cross-fertilization? We need to avoid negotiation, as has been said before. But we can also move beyond simple information-sharing. And that could be encouraged by inviting contributions of more structured information. On the other hand it is premature to institutionalize too many arrangements. We're dealing with the Internet, one of the most dynamic agencies in our world. I don't think we should be making rules. But we should encourage evolution, give space to participants to make things happen, and admit that we're learning as we go. Many different points of view need to be heard.

**BILL DRAKE:**

I will report briefly about a workshop on the IGF mandate organized by the civil society Internet Governance Caucus (IGC). The Tunis Agenda lists 12 functions for the IGF. And since then, there hadn't been any real public discussion about what those functions really mean in practice, what was the thinking behind them, the extent to which the IGF is performing them now. Take, for example, the element in the agenda that suggests that the IGF should promote and assess on an ongoing basis the embodiment of WSIS principles and Internet governance mechanisms. That would seem to imply an institutional capacity for ongoing monitoring and analysis across multiple Internet governance mechanisms that simply isn't there yet. If we are going to address those kinds of issues, we have to have a different way forward, because, obviously, an annual conference comprising panels of speakers can't perform that kind of a function. We tried to do a little bit of brainstorming about what some of the options were. One main point that came forward was that the IGF per se can't do these things, and it's up to stakeholders to take this role. Consequently we should try to figure out a way to create a facilitative environment in which the stakeholders could try to take on some of these functions more effectively, but also bring the results of their activities to the wider community for discussion. One option for doing that might be to reconsider the main sessions. After two years of the configuration of openness, access, security, diversity, one could argue that doing the same thing again the next year might be of relatively limited value, whereas an option that some people thought was interesting was, what we could do is try to have essentially the dynamic coalitions and the workshops able to percolate up from the bottom, from the edges of the network, bring that to the larger community for discussion in a plenary setting. One can imagine ways in which that would be complicated, obviously. And it would take some tweaking to define the precise mechanisms and modalities. Nevertheless, if we were to do something like that, one could argue that at least then we're capturing the value that's embedded in the structure. The real value of the IGF as it is now, is the bottom-up energy that you're getting from all these different communities in generating new ideas and having very vibrant discussions. And if we could find a way to leverage what they have generated and bring it into a wider debate, that would be helpful. That doesn't necessarily mean adopting the recommendations. It means simply addressing the issues on a broader basis, giving more people a chance to respond to the ideas.

**PEDRO VEIGA:**

I am speaking on behalf of the Portuguese president of the European Union. The IGF

meeting in Rio has been a very successful event. The European Union is particularly grateful to Brazil for having hosted the forum and to the IGF advisory group and secretariat for having ensured the good framework for dialogue and exchange. Both the number and diversity of the participants and the impressive amount of workshops, best practice forums, and dynamic coalitions, have proven that Athens was crucial for the start of this successful process, and Rio managed to bring an Athens-plus. The Internet is a platform of global value that should develop in the spirit of its pioneering times, offering ample opportunities for creativity and innovation to all users. It should remain open, people-centered, and multilingual, flexible to foster new technologies and users, preserve neutrality, inclusive and supportive of global, social, cultural, and economic interaction and development, but at the same time, meet the new challenges of today and tomorrow. Improving access to the Internet is a goal for us all, and freedom of expression and access to knowledge through the Internet stand as important democratic values to be preserved. The current arrangements for Internet governance have worked effectively to make the Internet the highly robust, dynamic, and geographically diverse medium that it is today. The EU remains fully committed to the IGF. We have shown this commitment by active engagement in the process, by hosting the first IGF, and by the financial contributions to the secretariat. This forum is an important tool for the implementation of the Geneva Action Plan and the Tunis Agenda. It will successfully establish a wide platform for stakeholders to contribute based on their specific expertise, knowledge, and interests. The multistakeholder approach of the IGF allowing for sharing points of view and best practices among very diverse groups, stands at the core of its success. The EU and its 27 member states have shown a strong commitment to the development of the information society in all regions in the world, more specifically, in Latin America, the Mediterranean non-Europe countries, Asia and sub-Saharan countries. The EU initiative for the information society, i2010, can be a sort of inspiration for the WSIS follow-up. The working methods of the IGF also allows us to explore further improvements of its function, and contributions should be implemented of the WSIS goals.

VINT CERF:

The IGF is a strikingly useful mechanism, and I want to underscore its value so far. From the ICANN point of view, as I see it as the former chairman, the IGF framework has helped a great deal. In the ICANN world we have to make decisions, we have to come to conclusions about policy. That's sometimes very difficult. In the IGF world, it's a very open forum. The attendees are very diverse. There are a wide-ranging number of topics that are offered. It's a non-negotiating climate. I can't emphasize how valuable that is. Many different points of view are offered, sometimes people don't agree, and it's okay. It's, in fact, important to see the diversity and range of opinions and views about issues. They help inform other processes in other organizations, including ICANN, that do have to reach specific conclusions. The thing that I like the most about the IGF so far is that there is a huge opportunity for dialogue and for follow-up. I am leaving IGF with at least a dozen possible actions to take that I hope will continue to the continued growth and utility of the Internet. So I simply want to congratulate the organizers both of Rio and the previous Athens and encourage you to continue this process more or less along the lines you have structured it because I think it is strikingly valuable.

ALUN MICHAEL:

It's vital that the IGF process is seen to make a difference. How to move forward? Could we have on the Website a space for commitments? From the UK we are making a commitment to establish a UK IGF to involve industry, civil society, and parliamentarians as well as government. And we're making a commitment within that to create a

partnership to cut crime and nuisance online. And we aim to report substantial progress to the IGF next year. For next year, can we all aim to increase the engagement of mainstream industry, of NGOs, and parliamentarians? It's essential to see that mainstream industry engagement. The engagement of the child protection NGOs has shown what incredible value that they can bring. On the other a big disappointment is that only parliamentarians from Brazil, UK, EU and South Africa come to Rio. How can we help to bring more MPs to the IGF 2008? And if we walk the talk at a national level, isn't that the way to help to embed the IGF process and enable it to mature?

EVERTON LUCERO:

The IGF is in the forefront of multilateralism within the UN system, and it may set precedence and contribute for review of other instance of UN policy-making. How can it achieve this? It's important to bear in mind that the IGF has to live up to the expectations of the international community on global public policy making. And there are certain improvements that I believe to be considered for the next session. One good improvement would be to have main sessions as single events or at least with few parallel sessions so that they will not be competing with workshops. Main sessions could be held, for instance, each morning and reporting back sessions could be incorporated. Substantive and in-depth debate could be left to the workshops and dynamic coalition meetings. Main sessions would receive reports and focus on discussing suggested actions for the way forward. There's no need to reproduce at main sessions that we already have at the workshops. We could also think of a possible rotational basis for chairing each of the main sessions among the different regions. Of course, the host country would continue chairing the opening, the closing, perhaps the emerging issues or one of these particular sessions, including taking stock, but it would be good to have a more diverse participation and geographically balanced. Also important is that the Secretariat continues to prepare the summary records at each session. A final remark: The procedures for preparing the IGF should also be improved. The present advisory group has no rules of procedure. The absence of rules is not necessarily beneficial to the process and need more transparency in the MAGs proceedings. And we should seriously consider the issue of financing. I believe that the UN Secretariat needs to have a budget that is free from the constraints of donors' priorities.

MARGARET MORAN:

I want to congratulate the IGF. Online child protection has been a major focus of this conference. This issue has the ability to unite us across different sectors - industry, NGOs, parliamentarians - and across different countries. It can only be addressed by international cooperation. It is of real significance to users. How can we ensure that we have a greater voice for users within this process as part of a gathering of stakeholders so that users can be part of determining the outcomes. I do mean users that are usually not heard in forums like this. We should be looking for mechanisms for public participation in the kinds of debates that effect all of us. We need greater transparency, greater accountability and real outcomes from the IGF in the future.

NITIN DESAI:

Just two or three points which struck me listening to people. One, what struck me was the very real fact that in some ways what we have in the IGF is a representation of the supplier dimension. Often, the suppliers of Internet services, whether it's the Internet community, whether it is the NGOs, whether it is the industry. Or for that matter whether it is the government departments. It is essentially the people who are involved in supplying Internet services. We have not yet fully captured the interests of the users.

One area where this did happen was in the child protection area and we saw how fruitful that was. So I think we will have to work a little harder. The second lesson I draw that we do need to think through a little bit more the connection between the main sessions and the workshops, dynamic coalitions, best practice workshops, the better structuring of the whole exercise. The third is that though everybody accepts that this is not a forum for negotiation or concrete actions, people do expect to see where has it made a difference in terms of the way it operates. And one idea that was put forward was the idea of commitments. Not commitments by the IGF but commitments by groups. We can call it a pledge-and-review system in international relations. I just want to conclude with my usual marriage analogy. I described Athens as the place where the boy and the girl were meeting for the first time and were scoping each other out. Somebody asked me how do I describe the second session? I said this is the session where you met the in-laws, and it appears you passed the test. So maybe when we get to India you will actually start holding hands with each other and we will get somewhere. On that happy note on the prospect of holding hands in Delhi, I would like to thank the UN secretary-general for convening this IGF. Brazil deserves all accolades for successfully hosting and organizing this IGF. We must also thank Brazil for the gracious hospitality. As you are all aware, technology has been and will continue to grow apace. It is important that policy issues are adequately addressed, along with advances in technology. The multistakeholder model has been emphasized throughout the discussions in Rio de Janeiro and will continue during the next IGF in India. India is an ancient civilization and now is a modern society. With its multi-cultural characteristics, it is rich in diversity. India invites you with its traditional hospitality.

## 9. Emerging issues

### Session Chairman:

- **Augusto Gadelha Vieira**, Coordinator, CGI.br – Brazilian Internet Steering Committee

### Moderator:

- **Nik Gowing**, Main Presenter, BBC World

### Panellists:

- **Robert E. Kahn**, Chairman, Corporation for National Research Initiatives, Reston, VA
- **Andrew Keen**, Author of The Cult of the Amateur, London
- **Robert Pepper**, Senior Director, Government Affairs, Cisco Systems, Washington D.C.
- **Nii Quaynor**, Chairman, Network Computer Systems, Accra

### Discussants:

- **Fred Baker**, Cisco Fellow, Cisco Systems, former IETF Chair
- **Vittorio Bertola**, Independent Consultant, Italy

- **Vint Cerf**, Chief Internet Evangelist, Google
- **Demi Getschko**, Director, NIC.br, Sao Paulo

AUGUSTO GADELHA VIEIRA:

We had very interesting discussions. Now, what issues are lacking in these discussions? What new issues are necessary to bring to the IGF next year in India? And what the future of the Internet may be?

NIK GOWING:

I want to make this session an unbuttoned brainstorming on how we can move forward. Bob Pepper, senior director for government affairs at Cisco in Washington. Bob, your ideas, please.

ROBERT PEPPER

I want to echo some of the earlier remarks about the utility of a forum that is information-sharing, where we have the opportunity to raise issues in a collaborative but frank discussion format, without having to worry about negotiations or coming to decisions. Having this kind of a format has a lot of issues bubbling up. And what we're going to do on this panel is bubble up more. What I want to do is now focus on issues on a going-forward basis and focus on it really in terms of the goals of WSIS and the goals of IGF, which is getting the benefits of the information society to everybody. Let me in a oversimplified way concentrate on supply and demand. Let me pick on issue and that is the use of radio spectrum to extend infrastructure, to extend the access networks to unserved and underserved areas. There's a huge opportunity globally, as every country in the world migrates from analog television to digital television, to create more opportunities for television broadcasting with higher quality and more services, but at the same time, be able to take back the unused spectrum because of the advantage of digital compression, and use that spectrum at lower frequencies for access networks, 700 megahertz, 800 megahertz. That is very important, especially in emerging countries, where you have long distances to bridge and where you have tropical forests. Some of the higher frequencies don't work. So I think spectrum for wireless broadband and spectrum for broadband is a very important emerging issue going forward. Another emerging issue is the development of local and regional Internet Exchange Points (IXPs). All this will lead to lower costs. On the demand side capacity building has high priority. And it's not just training on how to use the technology, it's the education of users, individuals, parents, teachers, small and medium enterprise. We are still lacking awareness on the benefits of information society. Another point for the future is safety on the Net, child protection, data protection. People have to be able to control the information about themselves. This is about building trust that will lead also to demand. And then its local content in local languages, creating local communities. We'll hear later about identity management, which both enables local community and provides confidence. An emerging issue that's very important is to avoid counter productive regulation that suppresses demand like prohibiting VOIP. We know that VOIP is one of the great demand drivers for broadband adoption. Likewise, regulating video over the Internet as though it were broadcasting also will reduce the demand and reduce new forms of entertainment, information, communications, and self-expression. A related issue is energy and the environment.

VITTORIO BERTOLA:

Well, there was something I heard which is a bit of a concern to me. You were talking

about child protection. You said, quote, "People being able to control the information about themselves." But, actually, it's not people. It's the companies that help governments control the information that flows through the network. In some cases there might be good reasons for governments to legitimately want to control what flows over the network. But don't you feel a need for globally agreed principles and rights that could also help you basically in having a particular environment and dealing with this business in a framework of human rights?

ROBERT PEPPER:

The point that I'm trying to make is that it's individuals who need to control the information about themselves. Later we're going to hear about identity management. There are technologies that are being deployed globally by all of the technology companies that actually make the Internet work, that enable all of these connections.

FRED BAKER:

First to Vittorio. You brought up the accusation that Cisco makes products that enable us to control content. As a matter of fact, that's not true. What we do is we enable people to do routing and to control applications. And those things have been used in controlling content, such as at the London Internet Exchange. But that's really something different. And now to Bob. What I understood from your remarks was that you're interested in enabling local users to use a variety of applications. You mentioned voice and video, peer-to-peer file sharing also falls in that category, where you try to get at basically saying, let's make the regulations such as it exists enable access, and enable people to use things effectively as opposed to looking at the content. Is that what you were getting at?

ROBERT PEPPER:

Yes. There are some core principles from some of the high-tech companies called the high-tech broadband coalition in which, from a consumer bottom-up perspective, the key principles are that within whatever your service is that you've purchased, you should be able to use that service to get any legal content, run any legal application, attach your own devices, and have sufficient information that you can make intelligent, informed decisions about what you want to do and where you want to go.

FRED BAKER:

It seems like part of that in terms of getting into local language needs to be some form of translation service to make content that's already on the Internet in one language available in the local languages. Is that also part of it?

ROBERT PEPPER:

It's partially translation, but there's also local content not just in terms of language, but local culture. It's about social cohesion and inclusion within societies that goes beyond just translating from one language to another. Translation will help. But it's more than that.

VITTORIO BERTOLA:

I wasn't really making accusations, but, in fact, technology can be used to that. We have to find a way to get an agreement on what companies could do or could not do. And this is also important for companies themselves. because when you are a company and you get squeezed by western countries asking you not to do that and certain other countries asking you to do that, your business is at risk because you don't know how to behave.

From the floor:

I am from the EBU. Bob, we know your view that the right place for bringing wideband broadband to the masses is to use broadcasting frequencies when they're cleared away from digital technology. But that's not the only view in town. Everybody is in favor of bringing Internet to the people. But there is a strong view that using the broadcast bands for wireless broadband won't do it, that this is simply short-termism and profitism. And, actually, we cannot deprive the public of their television networks, because a lot of people watch and need them: And there are technical arguments. It's not the same model as a mobile telephone. Please let's give people a proper service.

ROBERT PEPPER:

There's that view, but, frankly, I don't agree with it because it's a false choice. In fact, the broadcasters, with the transition from analog to digital, will be able to do not just what they do today, but be able to do more than they do today, including HD and multicast, with higher capacity and higher quality, and there will be spectrum left over, because of compression. The technologies that I'm talking about, right, are not congestion technologies. They're not Wi-Fi. We're talking about license technologies; we're talking about wireless broadband in frequency bands that actually will go through walls and tropical forests. It's a false choice if you understand and look at the technology and the propagation characteristics of the spectrum at 700 and 800 megahertz, that this is spectrum that is ideal for wireless broadband. There are tradeoffs. It's not going to be as great as higher frequencies, but you're going to get reach. And in emerging countries where there's no service, in order to be able to reach rural areas, this is terribly important. And it's not at the expense of broadcasters. Broadcasting is extremely important, I agree. In fact, a transition to digital broadcasting is as important for society as what we're talking about here.

From the floor:

Bob, your assertion is a false choice as well. The best that wireless broadband can do will give us several years of service. But you know and I know the capacity the people need for Internet is growing and growing and growing. So at best what we've got with the wireless broadband service is something that's going to last about five or ten years, and then we'll have to move to things like fiberoptic and hybrid coax, but that's a technical discussion perhaps to have at another time.

From the floor:

I'm an Israeli citizen not representing Israel. I would like to share what happened in Israel a couple of months ago, where Cisco offered the Israeli government a device that would help them to give the Internet service providers the option to unilaterally censor by default content. And by use of automatic censors at homes at the ISP level. So they basically pushed a business on the government rather than responding to business needs, which is censorship in a western country.

DEMI GETSCHKO:

A short comment about the broadcast solution. It is not clear for me how we can really use broadcast to include more people in the Internet, especially in the far away areas of the world. The back channel, the is always a problem. The interactivity you get from the television, I suppose, is very problematic.

VINT CERF:

I wanted to mention something about broadcast. Once we get to digital broadcast we have an opportunity to broadcast things other than television. And the reason I am excited about digital broadcast is because it becomes a new medium for delivering large quantities of digital content, regardless of what it is, to a large number of receivers. It is the efficiency of broadcast that we are not taking advantage of in the current Internet architecture, and here is an opportunity to extend it.

NIK GOWING:

I suppose I should just declare an interest. I am a main presenter for BBC World. I'm a traditional broadcaster. We love bandwidth. I am not here to tell whether we are going to give up any of our bandwidth. So don't press me on that. Please.

From the floor:

I would like to raise the issue of connection between development of the ICTs and sustainable development. I link this connection to the limited presentation of women here. If there were more women in the room, they would be thinking more in our future. I would like to see more women also on the panel.

From the floor:

If we talk about a the next billion Internet users, we will talk about teenagers and "twents" mainly, and a lot of these teenagers will make the next million of dollars out of the Internet. And this generation will behave differently. As an emerging issue we should also look into the change of behaviour of consumption of Internet in the future. And we should invite much more young people for the next IGF. Probably it could be good idea to invite Mark Zuckerberg from facebook and ask him to present a paper in the session on privacy.

FRED BAKER:

So since we deployed the Internet, the Internet has fundamentally changed in the applications it runs many times. It probably does so every three years. The Web at one time was something that didn't exist, and all of a sudden it was about half the traffic out there, maybe three-quarters, and then it became peer-to-peer. And there's video and voice running around. I think the important thing is actually not to focus on the particular applications that the kids are using next, but to say, okay, how can we ensure that we can continue developing new applications and make sure that they are excited about using them.

From the floor:

I am with Compass Rose International, and I work with a lot of young people and I would like to broaden it a little bit. I think the young people don't just need the industry to be coming with up interesting applications, but we need to be able to make it more possible for the young people to create applications that the industry might want to pick up. And on that regard, I would certainly support that we have more young people here, but I further support that we look more at how can we facilitate the growth of small and medium-sized enterprises that include young people from developing countries and elsewhere that include women, that include those in rural and developing markets who have something to bring to the industry as well as to their local situations.

From the floor:

I am from the Federal University of Santa Maria. Young people will enjoy all the good decisions that are made here and will also have to live with the bad decisions. They

should be seen as natural stakeholders in the process. That happened in Athens and I don't feel it happened so much here. You should try to bring youth fellows and try to foster youth participation.

From the floor:

I am from Nokia Siemens Networks. One of the things we noticed is the youth have been particularly fast in picking up mobile phones, and I think if we are talking about the Internet governance, then mobile Internet is going to be one of the big emerging issues. If you look at an iPhone, for example, it's a mobile Internet tablet and other devices are going to come up, pretty sure. The issue that comes up, and that's the societal impact of that, is more and more young people are using social networking sites like FaceBook and MySpace, and young people are sometimes dumb because they do stupid things. And they putting all personal information and the web and this will be recorded for ever. This could become a big problem. It's important to look at that identity management issue where you need to be aware of and able to pick up and say, well, what I did ten years ago should expire.

From the floor:

The most important change in behavior in one year is the incredible growth of social networking sites. It's one of the major evolutions. It always was there before, but it's even growing more and more. It is basically bringing a new problem, which is the management not of privacy but of what I would call intimacy. It's this zone in between where it's not completely public but you are sharing things with friends on those sites. How do you manage the zone? I would suggest that as those sites now have populations of millions of actors, we maybe should be addressing the internal governance of those social networking sites. It's important for the industry itself as well.

ANDREW KEEN:

I am the author of "Cult of the Amateur" which is a polemic against much of what is going on. I will try to be unbuttoned, even if I am not wearing a shirt, and I think the problem with the Internet today is it has become too unbuttoned. We need more buttons. Somebody technophile said the future has already arrived. It's just badly distributed. I think the future has already arrived and I am here to tell you about it and warn you about it. The future is something in Silicon Valley that we are calling Web 2.0. Web 2.0 is represented by social networks like FaceBook, user-generated information sites like Wikipedia, user-generated information and entertainment sites like YouTube, and of course by the blogosphere is the future of media. This is not a technological issue. This is a socio-cultural issue, a political issue, and an economic issue. The future I'm afraid, for most of you isn't very good news. You believe that the Internet is a vehicle for bringing democracy. In Silicon Valley, there are a lot of people who talk about democratization. They claim that this Web 2.0 revolution of user-generated content, of Google and MySpace and Wikipedia is a profound cultural revolution, is creating cultural, economic, political, and geographic democratization. Unfortunately, and I don't think there is anyone evil at the heart of this thing, there is no Mr. Web 2.0 pulling the strings to wreck our civilization, but unfortunately, I think there is a law at the heart of this, the law of unintended consequences. The consequences of democratization of Web 2.0, aren't more democracy. The consequences of Web 2.0 is actually less democracy, less equality, less cultural, economic, political, geographical egalitarianism. Let me briefly explain what I mean by this. In the cultural sphere you have an explosion of user-generated content, but this as a cultural system is not benefiting the talented. This is no new emerging ecosystem which rewards a digital cultural class. What Chris Anderson, the editor of "Wired" Magazine calls the long tail is not a viable economy. So

we are not seeing real democratization in the cultural space. In economic terms, it's pretty obvious for anyone who looks at the Silicon Valley economy to understand that the real profits of Web 2.0 are going to a tiny handful of companies. The creative classes are not being rewarded for this culture revolution. In political terms, I don't believe that the democratization of the Internet is creating more democracy. In America in the recent CNN/YouTube debate, you didn't see more democracy. All you saw was the voter becoming the heart of the matter. You saw the inanity of politics. You saw the trivialization of the political process. You are not seeing more democracy. The reality of the Web 2.0 economy or the Web 2.0 revolution is we are seeing the emergence of a new oligarchy, an anonymous oligarchy of online activists, who are really running the show at Wikipedia and other so-called democratizing Web sites like Dig. The reality of the Internet, then, is we need to be much more skeptical. We need to look at it much more critically. It's all too easy to be seduced by the prophets, the peddlers of the myth of Web 2.0 revolution who promise that the masses will finally be empowered by this revolution. The reality is actually the opposite. Ultimately, you all want a globalized media, but in my view, the Web 2.0 revolution is resulting in less globalization, more localism, and more control from a small geographic center. So my advice for everyone here is to be a little more skeptical of the supposed cultural, economic benefits. We have news that's unreliable. We have a cacophony of opinion that no one can sort out the truth from the nonsense and above all I am calling for two things. I am calling for more media literacy. We need to teach the YouTube generation how to read through media. We don't need to teach them about the use of technology. They know that intuitively. But we need to teach a generation that there's a profound difference between edited content on the New York Times and unedited content on sites like Wikipedia. We need to teach them there's a profound difference between the content on YouTube and the content on traditional professional networks like the BBC. The other area that I think that we need to critically examine -- and I understand that this is a controversial area, and particularly applies to the industrial world -- is the issue of anonymity. In my view, it's the anonymity of the Web 2.0 world which is corroding real conversation. There isn't conversation. There isn't collaboration. There isn't community on the Internet. Rather than those "C" words, those three "C" words, the really accurate "C" word in the Web 2.0 world is corrosiveness. We can't allow today's Internet users to hide behind anonymity. It has to become a real social contract, and it doesn't just mean taking from it. We require people to give their identity if we're to build a richer, more accurate, and truthful media.

VITTORIO BERTOLA:

I think that not everything is lost. The problem is that this new environment is completely unregulated, and maybe we need to agree on principles that we need in this new environment like accountability and transparency. My experience with Wikipedia is that it's very top-down. Somebody is pulling the strings and you don't know who. It's a matter of establishing some responsibilities of the people who gain responsibility roles in these platforms and their relationships to the people who actually provide the content. We should also start thinking of the new value chain. These new platforms, YouTube and Flickr and whatever, are actually making money through advertising, using my holiday clips. They're monetizing my private life and even my spare time. And while it might be a fair exchange that they provide a service in exchange, they make some money on it, there is an interesting economical relationship that needs to be worked out.

VINT CERF:

The point about anonymity, I think, is critical. The network is capable of supporting high-quality authentication. There's no reason why you can't create forums in which you're

not permitted to speak without authenticating yourself. But I would suggest how that we shouldn't insist that all exchanges have that characteristic. Let's allow both of those to happen. And if you choose to be in a discussion group in which anonymity is supported, that's your choice.

ANDREW KEEN:

Vint, are you suggesting, that there's nothing to discuss about these issues? Are you suggesting that we can choose to be anonymous, we can choose not to be anonymous, and that this is not an issue that we should discuss, that the socio cultural ramifications of Web 2.0 really aren't relevant, it simply depends on how and how users want to use this technology? If that's the case, then we can't have a discussion about anything outside technology.

VINT CERF:

No, I don't agree with that. What I am saying is that we should not force a particular point of view. I'm only suggesting that we should permit people to be anonymous if they wish to be. But you don't have to participate in the conversation with them. Create environments in which both of those practices are permitted. That's all I'm saying.

From the floor:

I am from Amnesty International. Anonymity is crucial for freedom of expression. The Internet is empowering journalists in many countries to do investigative things which are important. If they didn't remain anonymous, they wouldn't be able to do that. It's the anonymity the Internet which enables them to go on reporting the truth. It's the only way people can get hold of what's really happening in the world. And how they can form social relationships which allow them to protest and do other things which otherwise they wouldn't have been able to do.

ANDREW KEEN:

I strongly agree with what you're saying. It points to something else. We all like the idea of the Internet as a global device that applies equally to different societies. But the anonymity issue is actually one that reveals the fact that the Internet, in reality, isn't very much of a global medium. I completely agree with you about governments which put people in jail for their views. The problem is that in the industrial world, it's anonymity that's undermining the Internet. Whereas, in the less-developed world, it's anonymity which could actually provoke more political reform and be a great tool for changing society.

From the floor:

I'm a 21-year-old DiploFoundation youth representative, an Internet addict from South Africa. I think that some of the comments in this panel and this forum are getting out of touch with reality. To the extent that things being said are simply not true, Andrew, you mentioned that there is no reward for cultural content production or creative content on the Internet. Have you ever heard of dig.com, which have done just that? You mentioned the CNN YouTube debate not being democratic. Well, CNN is a buzzword there. I use YouTube, I'm very well-informed of the Ron Paul campaign in the US, which is driven largely by Internet success, which has been completely captured by the youth and pushed to the American people by the youth. And I'm a South African, and I'm following that trend. You mentioned technologies and that the Internet's goal should be only to deliver those technologies and we shouldn't worry about what they are. People are mentioning things like Facebook and MySpace. That's old news. What about the

new news, like Webkins and club penguin, which is popular with 6, 12-year-olds, which logs over a million unique hits every single month? I'm a member of both of them and I've chatted to eight-year-olds. Needless to say, I'm not an eight-year-old. And what, when spatial technology begins to integrate vertically with social networks being used by nine-year-olds.

From the floor:

I am with the Family Online Safety Institute. Great discussion. Here's a problem: We tell our kids, "Don't give out your own personal information. Don't tell people who you are. Don't tell them where you go to school." In other words, to be anonymous. So we have a whole generation of kids coming up that way. What do you do about that? Do you say that they shouldn't be anonymous?

From the floor:

People are talking about self-regulation. I'm not particularly sure how self-regulation will be so enforced in the context of Web 2.0. Well. Let us also talk about regulation from the top. I'm not sure how nation states would be able to enforce that. More importantly, in this entire scenario, the onus is coming back to the service providers, who are becoming increasingly gatekeepers of information. This is going to be one of the biggest emerging issues in terms of legalities concerning user-generated content and Internet 2.0. The number of people across the world who have got hooked onto this new phenomenon is growing and law is going to wake up to it.

From the floor:

I'm a member of the board of ICANN speaking in a private capacity. I have a 13-year-old daughter. I am concerned about privacy. I don't think that the problem of identification should be compulsory. It should be left to the families or the individual according to the case. And it should be in-built into the technology to allow for that.

From the floor:

The amount of data stored on the Internet or with the content providers is enormous and it grows exponentially. The Internet needs to learn how to forget. And that is a large issue that hasn't been talked about. Being able to forget bad data is important for the larger cultural experience. And we don't know how to do that.

From the floor:

I am a member of the European Parliament. Democracy, for me, is going to fair and free elections and being able to change a government. And there are lots of countries where that doesn't happen. When we have more of that, we'll have more democracy. If we engage people with the issues leading to those votes in a better way, I think that's helpful. But if you look across the world now, you find in some countries people queuing up all day to vote, but you find, in the developed world, that turnouts are going down. And I want more people engaged in that process. I think that Web 2 is helping that. Another point is to digital television. People have 200 channels to choose from in a way they never had before. I agree about educating young people. We should be getting young people to make a 20-second clip, a video, to show how powerful that is in influencing people's opinion.

From the floor:

I am with Alcatel-Lucent. We tend to forget that Internet is neutral. It has been built with this paradigm that the network is neutral. And isn't the issue that we are talking about is

about introducing some level of control within the Internet for service or content provider? Maybe it was not an issue ten years ago, but now that the Internet is used by billions and billions of people this could become an issue.

From the floor:

I am from MINC. The Genie is out of the box. And it's going to challenge our conventional thinking forever. Consider that the last 25 years, where the Internet was created, we have had an economic way of thinking that developed and delivered the "me" generation, me. Guess what? When all these kids go online and they create their space or their platform or their blog, what they perhaps are hoping for is their bit of fame, money, success. I would say the fundamental issue is social responsibility. Where do we stand on social responsibility when it comes to the Internet? The answer could be anonymity. It may not necessarily be anonymity. If you don't want to participate, if you don't know who the person is and you don't feel that's credible, you don't participate with them.

ANDREW KEEN:

I love the Internet learning how to forget. But let me give an example of a teenager who thinks that Club Penguin is a sort of public service. It is, of course, a social network for preteens which I think is owned by Disney. I'm not saying that Disney is bad. But what I am saying is that we have to understand that these social networks as they're evolving in the Web 2.0 world are businesses. They're not public services. And they're used to promote a profit. Facebook today is supposedly worth \$15 billion and the young founder of it last week argued that the way to monetize it is to put advertising into the messaging, into the very nature of social networking, which is very troubling. My one warning to all of you is don't be seduced by the cult of youth. Don't be seduced that young people have the answers to this medium. It's no more owned by the kids than by the grownups. And if we allow it to be owned by the kids, then I'm afraid it will turn into one vast club penguin.

NII QUAYNOR:

In Africa is we have the challenge to deliver access to 95% of Africans who have not had any Internet experience. The opportunity we see is that the networks are generally organic and change all the time. So you can be incremental in some ways in delivering the service. Africa will be energized with new lower-cost interfaces, including telephones, PDAs, PCs. The particular momentum behind the mobile telephony is one that we are looking to take advantage of. The new networks that we will build will be based on IPv6. And we'd like to rally manufacturers to produce appropriate PCs to enable us to do that. We see a real opportunity that Africa will realize innovation. That will come out after we have deployed our continental network based on IPv6t. This is the privilege if you start late. You can invest directly into the newest technologies. Another issue is the building of institutions that support the networks. We have to strengthen in particular AfriNIC and the capacity-building institution, AfNOG, but also AFRISPAN, AFTLD and the African network of research and education. We regard them as really critical Internet resources. Furthermore we're going to have to change our traffic patterns as a way of reducing the ever-increasing demand for international connectivity. I am going beyond IXPs. I am saying that we should take a good look at how to place the information we normally request for on the continent itself and access it terrestrially. Next: Education is really a major stumbling block to much of the dreams that we've just stated. We need an increasing penetration of graduates in Africa if the information society is to take hold. We would like the Internet in Africa to develop freely, openly, and diverse. While we recognize that there are several important issues beyond

access, access seems to be still the real barrier that we have. Africa's priority is to focus on building its networks. And we have to build real communities around these networks and strengthen the institutions that support the networks.

VINT CERF:

I wanted to pick up on the IPv6 point. One of the things that he had said is that IPv6 is absolutely necessary to allow the network to expand. But we need to make sure that when you connect to the Net with IPv6, you are connected to everything on the Net. One of the things that we need to do in addition to the IXPs is to start looking at continental regional networking. We need to find a way to pay for that in order to get full connectivity of IPv6. That's going to be an emerging big issue in the year 2008.

FRED BAKER:

Nii, it seems like part of the problem that you deal with in Africa has to do with regulation. And this is really coming back to Bob's point earlier. But regulation that has been developed for the telecoms and has tied them very close to government and to monetary feeds like that, and which are now being translated directly across and used in a protectionist manner.

NII QUAYNOR:

It's a difficult issue. But certainly with more pressure, the regulatory regimes within our countries themselves are being reformed. On the other hand, I have to agree that the history has gone from a telco being separated from post to being privatized. So you can imagine that there are remnants which attempt to keep the status quo the same. Soon you might find a situation where the regulatory regime may become under the oversight of operators, because we are beginning to move more in that direction that the operators are footing a lot of bills, and over time, we expect to see that happen.

DEMI GETSCHKO:

The exhaustion of IPv4 and the beginning of IPv6 may be a great opportunity for a continent like Africa to give a leap forward, because you can begin stimulating, developing local content in IPv6 procedures directly to the people. You have to have local content to stimulate the people to go to the Internet. And the IPv6 must be a motivation to do this.

VITTORIO BERTOLA:

Of course, the IPv6 migration is very important. There's a lot of issues that have not been explored. In particular the business case for migrating is weak. Nii has mentioned to use YouTube from a business. But maybe you discover that in a pure business perspective encoding your content through TRMs, that is trusted mechanisms you get some control on what content gets published and that's not really a socially neutral decision. Everything you take has a social impact.

NII QUAYNOR:

I have no problems with social impact if it's constructive. I also don't believe that everything needs to be necessarily done in the private sector. In fact, a lot of the work that I do is not-for-profit, pan-African in nature. The real issue for Africa is that it needs to move quickly. Long discussions are not constructive for us.

From the floor:

In Pakistan, the YouTube was used to put our opinions about a draft cybercrime bill and lobbying in policy that led to the government to make changes and give us a seat at the table, discuss with business and civil society and change the legislation. Democratization, YouTube and Web 2.0 came together here. And this can work in nondemocratic as well as democratic society.

VITTORIO BERTOLA:

The Internet was designed to promote freedom of expression but also freedom of innovation and freedom of enterprise. The problem with freedom of expression, is that it's not a uniform concept. Various societies have various understanding about it. We have to find a global solution in which any rules and principles you develop allow for local variations. And this is true as well for social responsibility. There is no uniform global society. We're getting there, but we're not there yet.

From the floor:

A number of dynamic coalitions have been directing the focus on Internet rights, in particular, the Italian government proposed the Internet Bill of Rights. What is emerging here is the need of cooperation among all the new coalitions, something like a coalition of coalitions on bill of rights. But I want to insist on the fact that it is important to have multistakeholder coalitions, where also NGOs and the public sector is engaging.

VINT CERF:

It strikes me that what we just uncovered in addition to the notion of an Internet Bill of Rights is the notion of Internet responsibility. And what I see emerging out of some of this discussion is literally a law of the net, which may take a very long time to figure out, but some things are going to have to be globally accepted as responsibilities for using this technology. And similarly we have to arrive at agreements about what rights people have to use it. And finally, I think we have to split local conditions and local practices from the ones that we would like to have globally. One tiny example for law enforcement, there may be some things that we really need to do on a global basis, we have to agree that people have to be responsible on a global scale for certain actions and that we will globally enforce failure to observe those responsibilities. That may lead us into a fairly complex territory, just like the law of the sea. But it may be that we need a matrix like that in order to work all this out.

ROBERT PEPPER:

Going back how tot the 95% of the people in Africa and the next 4 billion I would go back to the supply and demand issue. The problem is we don't yet have sufficient supply in many parts of the world. It is indeed a a development issue. How to attract capital for development how to build public-private partnerships for investment to provide service to those who are not served.

ANDREW KEEN:

I love what Vint said about rights and responsibilities. I just hope that they won't be established by an artificial algorithm. That human beings will actually build those rights and responsibilities.

NIK GOWING:

Bob and Vint, the two fathers of the Internet, can you reflect about all of this?

ROBERT KAHN:

What I want to do today is to reflect on how new technology and advances in R & D can effect change in the Internet as we know it, both today and in the future. The Internet embodies the basic notion of open architecture with defined interfaces and protocols that allow for the interconnection of diverse systems into a functioning whole. And this aspect of the Internet really needs to be preserved going forward in the future. But other aspects of the Internet system as we know it really need to be allowed to evolve. As we originally envisioned the term "open," it reflected the capability for this interconnection between different networks and computers. It has evolved to encompass also the structuring of units of information and managing such data structures. And in this regard the role of software companies, authors and information service providers has become much more prominent in recent years. We should embrace both developing and maintaining open architectures to reinforce the multistakeholder approach that's been so successful in the Internet to a date. We should make sure we accommodate linguistic and other forms of cultural diversity, and that's a technological as well as a social comment. And we should do what we are able to do in creating new functionality, perhaps even enabling the introduction of radically new capabilities into the Internet, provided they give us worthwhile benefits. And this new functionality is most effectively introduced on a holistic basis, globally, by making use of existing worldwide infrastructure such as the Internet itself. This is a technique that we often call bootstrapping. Governments as well as the private sector organizations and individuals have a role to play in enabling such changes. There is nothing that stands still with the passage of time, and yet there are basic reasons why such change in a big infrastructure like this is so difficult. The standards process plays an essential role in this whole activity. Today, the responsibility for parts of the standards process rests with a number of organizations, each of which has managed to carve out its own area of responsibility, often by very different means. Sometimes they even overlap. Yet such bodies in essence form a kind of bureaucracy of their own, married to the very technologies for which they are responsible. And it therefore becomes very hard for such bodies to embrace radical change, particularly architecture change that threatens the very technology that they have the charge to oversee. How does such change occur in the face of resistance by these highly competent bodies? Historically, such change has occurred in very small steps, often taken by cooperating parties, at least in part operating outside the normal system of standards, and then by leveraging the infrastructure that is available to them to bootstrap it. But that by itself doesn't really change things because of other problems that can show up down the pike. Governments, of course, can effect things in their own countries, but my experience is it's only when companies are willing to put significant investment into new and demonstrably better technology and approaches and get behind such efforts that they generate the necessary momentum. Well, how do such cooperative efforts gain critical mass in this world? Often it's leadership by a single company or a single person within that company, or possibly a small set of companies. Often it's the combined efforts of the research community including government funding agencies to demonstrate the power of a new technology. My preference is for the existing standards organizations, including private and governmental organizations, to impress the importance of these new possibilities, since they are already set up to leverage them both financially and organizationally. But the reality is that the opportunities may not seem large or important enough at the time, and they may be counterculture to those existing bodies. Thus it will devolve to the entrepreneurily motivated to determine how best to support the growth of their new technologies in coordination with the existing standards bodies where appropriate. Although major changes have been made to many aspects of the Internet, the basic structure remains resistant to major change from within. In some ways this is a feature that ensures the ongoing stability of the net, but certain changes on the other

hand, may be desirable in the future that are very difficult to accommodate within those existing structures. That being said, it is important that the notion of open architecture be maintained and that interoperability of systems be enabled. But other aspects of the Internet should be subject to reevaluation over time as circumstances require. So one question for this body to consider, going forward, is the process by which major structural change can occur going forward. When it's not able to be done through the normal standard processes. This will be no doubt driven by ideas, but there is no mechanism by which we can predict where the next newly, truly significant idea will come from. I personally look forward to the further unleashing of creativity and innovation not only in science and technology but in identifying the need for organization and social processes that can broaden the capabilities and promise of the Internet in the future and I welcome discussion on these and other related topics, both here and in other gives that are made possible through the efforts of the IGF.

VINT CERF:

It's an interesting thing to observe that before the Internet existed, there was another very big communication system called the telephone system. And of course it's still with us. But it's being fairly dramatically affected by the presence of Internet and its ability to carry voice. It seems to me that the way Bob describes it, you can use the existing Internet as a scaffolding to design and build something new. It's been done before, and that may be exactly the path that has to be taken for the next kind of network, if it isn't going to be exactly the Internet itself. I'm assuming, Bob, that you are not arguing that the next generation of communication systems necessarily has to follow the existing Internet architecture, or are you?

ROBERT KAHN:

I mean, I had more remarks on detailed structural comments here, but let me just say, roughly, that the only thing I am asserting is that open architecture really needs to survive. That interoperability is key to what the Internet is, that we need to work through existing standards bodies to the extent possible but we need to understand how to make change happen, when it can't happen naturally within the purview of those existing bodies. So I am in favor of allowing creativity and innovation to flourish. I have no particular commitment to any one structure, technology, or whatever, as long as this issue of interoperability and open architecture, the ability of any of the citizens of the world to be able to communicate freely and effectively over the Internet can be maintained.

VINT CERF:

So if I could jump in here, it seems to me that most of the interesting changes to the applications in the Internet have not come out of standards making activity. It has come out of people just trying things out, and testing them and making them work. And if they work out well enough, then sometimes they get standardized. But it may very well be that a standards practice is not the best way to effect change. It's only the best way to document it so that other people can participate.

ROBERT KAHN:

Yeah, if I could just say, what I was focusing on was not so much how to build applications on the net, how to build businesses on the net. What I was talking about was how we make fundamental change to the underlying architecture of the network itself, which can't really be done effectively outside the net when it involves the very structure of the net that you are using itself. And so that's, I think, an issue that we are

going to have to deal with going forward.

VINT CERF:

Before the Internet architecture was put together we used something called the NCP protocols of the ARPANET. And we used that to communicate with the pieces of the Internet that weren't working yet. So the whole idea was that we used the ARPANET as a scaffolding to build the Internet. And I'm guessing that we could use the Internet as a scaffolding to build the next generation of system, whatever the heck it looks like, until it gets working. And then you take the scaffolding down. You do this with buildings all the time. And Bob, I wasn't specifically trying to limit my comments to applications. What I was trying to get at is that standards-making bodies are not necessarily very creative. That's not where the inventions take place. The inventions take place someplace else, in research institutions and people's garages. And it's only after something works that you worry about making standards for them.

ROBERT KAHN:

The fact of the matter is the issue of scaffolding as you described it and that bootstrapping is a very critical technique to use. The Internet was created by essentially bootstrapping on the existing telecommunications infrastructure. We saw how various services could be brought on top of the Internet by literally bootstrapping on top of that. We saw it in some conferencing services and the like. I certainly would never make the argument that the standards bodies are the promoters of all the new change. They tend to be a facilitating mechanism for the most part. But there are some things that are hard to do within the existing standards process. And that's the challenge that we have to deal with in the future.

FRED BAKER:

Two examples that are going on right now are PlanetLab and the European Commission's FIRE program. PlanetLab runs over the existing Internet and it allows researchers to play with new ideas and then spin them out into other things. And the FIRE program sits down and funds the development of new parts of the network using technologies that are developed over time. So those are examples of the bootstrapping. Now, specific to the infrastructure, Bob, are you looking at ways to replace things like IP itself or the DNS? What are the specific infrastructure elements that you would like to change that you are having trouble with in the standards bodies?

ROBERT KAHN:

Certainly it's not to try and change IP or DNS or any specific thing. I was raising the general question as to how you introduce new capabilities. Fred, you probably recall from your days even in the IETF that there are some things that the IETF refused to consider just because it wasn't within their purview of what was relevant and important at the time. And I'm sure that happens in every other standards body. When we first approached the folks dealing with international standards about getting involved with TCP/IP, Vint and I were both involved in that back in the '80s, there was a total commitment to a different set of protocols. TP zero and TP2 and TP4. And essentially we were afforded no room for maneuver within that group, which is why the IETF was set up in the first place. So I am just saying that existing bodies can, in fact, become captive to the very things that they are overseeing and make it impossible for new and interesting ideas to flourish, not in terms of replacement but in parallel with what's going on so new ideas can flourish. The whole idea of the Internet, when we started it, was to allow grass-roots, bottom-up ideas. And the Internet has gotten so established now that

it's very difficult for that to happen as it did once in the past.

VITTORIO BERTOLA:

We should get to the point where we recognize a sort of right to innovation at the edges. We expect people to continue being able to innovate at the edge and put a PC in their garage and try something new. This is very important for the Internet we will build. And we should also get to the point where we have some clearly formalized principles for the standards making processes that ensure that they don't crystallize too much as well, so they are able to respond to change, to be inclusive and not become an obstacle in the way of changes.

DEMI GETSCHKO:

What we call the spirit of the Internet survived years and years and waves and waves of new customers and new applications without losing the collaborative fashion, the participation and the openness. I'm quite optimistic that even if we change structures and standards, this spirit will survive and we could be, in the next years, collaborative, open, and participating in the network.

ROBERT KAHN:

I am optimistic that most of these issues can be worked out. In fact, I think they have to be worked out before evolution and the inevitable is upon us. Change is just par for the course. I did want to just comment briefly on this notion of the right to innovate at the edges. I have often resisted the notion of defining an edge to the Internet, the flat-earth theory of the Internet, because the Internet encompasses the movement of bits, it has got computers at the edge and there is no clearly-defined boundary to it as I see it. You can define edges. You can say where IP terminates and something else takes place, that's an edge but I don't see it that way. My view is every party to the Internet ought to be allowed to consider how to innovate within their space. So if you have the notion that the innovation takes place they edges, that sort of rules out a lot of the telecommunications industry from participating at a core level in some of this innovation. I wouldn't rule that out. However, what I would say is to the extent that they participate by innovating within their nets, the first company that gets out of the starting gate with a real innovation is going to have a capability that nobody else has. So if we're not careful, we go down the path of possibly fragmenting the net in terms of using those capabilities. So I would consider, as one possibility, to require that fundamental changes that are made within a net have defined external specifications that other nets can connect. Maybe with peer-to-peer agreements. This is not an argument in favor of one company investing and then everybody else piggybacking off of that investment. But that if there is a fundamental technology, there be way for other networks to become party of that at an external interface to their net. They don't have to implement it within their net. They may do it as an application. They may leave it up to the users. But today we have no mechanism to ensure that that kind of interoperability can happen when changes are made internal to a net that users then become dependent upon.

From the floor:

Historically, the Internet comes into the lives of the countries which are here represented by actions, either connected to military knowledge or to scientific knowledge. In this sense, I would compare the future of the past and the future of the present. We have to consider that countries which exist today in the real world with their laws and their mixes, their hybrids, between public and private, even one with their degree of state ownership or public services, have the Internet which has been the

result of collaboration thanks to the scientific environment as a type of scientific cooperation. That is, it has not replaced at no moment the real presence of the real countries which are here. The concrete issue is, when is it that the country codes, top-level domains, will become constituted in virtual countries, as Rio, for the countries who are here?

From the floor:

Today we navigate and get information using search engines, and we very seldom use URLs, domain names. I wonder if this is the tip of the iceberg pointing to a new structure of addressing in which we no longer need domain names to find what we need. Is this a new paradigm we are going to?

VINT CERF:

My quick answer is, yes, it's very possible that will happen. And I point out that URLs have the bad characteristic that things disappear off of the Net. They're not permanent references. What we need are permanent references over time. So, in fact, I'm much in favour of re-examining how we identify things in the network so that no matter where they are, no matter which host they're on, we can find them, even if the domain names have changed.

ROBERT KAHN:

This was a perfect opportunity for Vint to help plug our Handle System, but I see he didn't do that. So let me just say that that's actually an area that I've been working on for many years. In fact, Vint and I started working on it back in the '80s in terms of mobile programs in the Internet. And part of that, we came up with a digital object architect that I think was my attempt at a re-conceptualization around managing content. And it involves unique identifiers. And there is a system on the net called the Handle System, it's on the handle.net site, that allows you to do exactly what you're talking about. It's got many potential applications. I won't try and even list a few of them today. But the fact of the matter is that URLs do have a very short half-lifetime. And in five or ten years, most of them won't work at all. The publishers got very interested. Publishing and journals, they would like to have the same effectiveness on electronic bookshelf that a regular library has. It's a stilted replication, because it's replicating the paper world in the electronic world. But if you pull an electronic journal off the world many years from now, I guarantee you that the URLs will not work, but the Handle System might.

From the floor:

My name is Naomasa Maruyama. I'm an advocate of open standard but I want to know how the people working for the open standards will be awarded.

NIK GOWING:

Markus and the Chair will now summarize

MARKUS KUMMER:

My take is that we have enough for many years to come. We have a long list of issues. We were also reminded there are different perspectives, depending on where you come from. On one of these issues, anonymity, different views are held whether it's good or bad in the developed world, whether it helps democracy or undermines democracy. Nii reminded us that the African perspective is somewhat different, and there access remained the number-one issue. The importance of the environmental impact of ICTs was mentioned. There was a strong focus on the responsibilities of users. One of the

cross-cutting issues was the borderless nature of the Internet and the fact that we have national legislations that are different. How to regulate a global medium in a society which is not yet global? There are proposals: Do we need regulations? Is it enough if you have self-regulations? Or do we need something in between, something like soft Internet governance, a collaborative, multistakeholder effort? Maybe the initiative of the Internet Bill of Rights will bring us further.

AUGUSTO GADELHA VIEIRA:

This was a very exciting session and it crowned the whole IGF in Rio. We had many topics here which actually points that we're in the midst of an evolution and that we have to worry about the effects that the Internet has on mankind and people and all the aspects of social behavior. I would conclude by thanking everybody

Additional Statements

STATEMENT BY THE REPRESENTATIVE OF THE COUNCIL OF THE EUROPEAN UNION

The multistakeholder nature, the role and experience of the advisory group has been instrumental in moving the IGF forward. It is, therefore, of crucial importance that the advisory group starts the preparation of the next IGF in Delhi as soon as possible, also taking into account the tasks of the advisory group as set out in the Secretary-General's decision.

STATEMENT BY THE REPRESENTATIVE OF THE RUSSIAN FEDERATION

I want to thank the host country, Brazil, the secretariat of the forum, the advisory group and all participants for this really exciting forum. However, the mandate of the advisory group expires with the end of the forum. I'd like to support my Brazilian colleagues in this connection with a view to making the advisory group more transparent and more open. We have a number of proposals on principles for the establishment of the advisory group. There are three simple but important principles. First principle is clear criteria for the membership of the advisory group. The second principle is to ensure a rotation in the membership of the advisory group. And the third principle is equal participation by governments, business, and civil society on the basis of the geographical principle of balance. We will bring this proposal to the UN Secretary-General and will ask it to be taken into account in establishing the new advisory group. I would like to propose also to consider the advisability of creating a special ad hoc working group to develop practical steps for transition of the Internet governance system to bring it under the control of the international community, including the administration of critical Internet resources.

STATEMENT BY THE REPRESENTATIVE OF THE REPUBLIC OF AZERBAIJAN

Azerbaijan, with great opportunities for expansion of industry, of information technologies, nowadays is the most dynamic developing country of the region. Our strategy is to transfer all avenues to non-oil sector of economy as well to ICT. We see ICT tools for democratization of society, and we understand only ICT could play a role of granting the new platform of dialogue between civilization, nation, and countries, as we see it here in the forum. And, once again, as we proposed in Athens, we want to reassure that if Azerbaijan will be selected as a host country for the IGF 2010, we'll spare no efforts to organize the meeting at the highest international standards.

## 10. Closing ceremony

### Speakers:

- **Nitin Desai**, the United Nations Secretary-General's Special Adviser for Internet Governance
- **Delphine Nana Mekounte**, President, African Civil Society on the Information Society
- **Peter Eduardo Siemsen**, International Chamber of Commerce (ICC/BASIS)
- **Matthew Shears**, Director of Public Policy, Internet Society (ISOC)
- **A.C. Gadelha Vieira**, Coordinator, Brazilian Internet Steering Committee (CGI)

### NITIN DESAI:

On behalf of the United Nations, it's my very pleasant duty to thank the many people who have made this event possible. And I am really impressed by the fact that so many of the people who came to Athens also came to Rio. And I have no doubt that most of you will also be in Delhi. And like a good businessman, I like the idea of repeat customers, that's always a good sign for any new shop that you open. We are moving forward. One message that I do get from all of this is that in some ways, our first phase of the IGF was focused on making people a little more comfortable with each other. And we are succeeding. And the reason we are succeeding is there is a certain adjustment of cultures which has taken place. Governments have been a little more willing to accept methods of discussion which are not quite what they are used to in diplomatic processes. I believe NGOs have also learned the habits of tact, if I may say that. So they realize that this is a different type of forum. And so has industry and the Internet community and the very fact that they welcome the types of debates and discussions we have had, even though often these debates have been critical of their activities, shows that we are developing a style of conversation which does lead to what I would describe as a dialogue of good faith, where people listen to each other and don't just talk at each other. But we are still basically a group of people who are involved on the supply side of the Internet. The conversation needs to be expanded and so that it engages more the people who are the users of the Internet. And this, perhaps, is a challenge that we face for the future Internet. We need to look at our agenda to see how we structure it, how we talk about it and what we can do in order to engage more fully in a dialogue with people who are not here, the people who are involved more on the user side of the Internet. I'm pretty confident that after having invested so much of your time and effort into this process over the past two years, you are not going to abandon it. And that is the best test of a process, that it really becomes something which is owned by the people who are participating in it. And I have the feeling that this process is now fully owned by you, the participants. And that you will not allow us to distort it or modify it or change it in a manner which doesn't fit in with your expectations and needs. I would not say there is complete unanimity on everything -- on how we do things. There have been very valuable suggestions which have come on how we can modify the processes and constitute the advisory group. And I'm sure the UN will take these views very seriously in the next phase of the work of the IGF. Let me here stress one thing, that the record of

the sessions is the verbatim record. If anybody has a problem with the summary, make your own summary. You have the verbatim record. You are free to make your own summary. That is the authentic record of the session. The summary is for lazy people like me who are not ready to read through the transcripts and who want something a little more compact. And so I would urge you to look at it in this spirit. It is not a document for debate or discussion, but I would invite Markus Kummer to present this to us before I turn to Augusto César Gadelha Vieira, who will give the closing remarks on behalf of the of the Chair of Brazil.

MARKUS KUMMER:

In Athens we had the hope to have a paperless conference. But it turned out that people still like some paper to take home. So we made the effort to produce a chairman's summary. It reflects the discussions we had over the past few days. It starts with an overview framing the meeting, has a brief description of the opening ceremony and the opening sessions, and then it has a short synthesis of each of the main sessions. As the chairman said, you may not find what you said, but it is impossible to capture everything, and the verbatim record stays on our Web site. We had over 2,100 registered participants from 109 countries. However, not all of them turned up. We had over 100 members of the press who attended the event.

AUGUSTO GADELHA VIEIRA:

The Brazilian people and government were proud to host the 2<sup>nd</sup> meeting of the IGF. We are honored to receive over 2,000 registrations, including representatives from governments, civil society, the private sector, international organizations, research institutes, and Internet users. The second IGF took place in an atmosphere of friendship and cooperation, in accordance with its mandate as contained in the Tunis Agenda for Information Society. The IGF provided a space for multistakeholder debate on cross-cutting themes. It facilitated the dialogue between organizations in charge of complementary aspects of Internet governance. It identified emerging issues and brought them to the attention of the public. The intense debate and participation in main sessions, workshops, open and best-practice forums, dynamic coalitions, and other meetings confirmed the role of the IGF in shaping the governance of the Internet, with a view to contribute to the building of a people-centered, development-oriented, and inclusive information society. The IGF also confirmed that the format of this forum is at the forefront of multilateral policy-making and may set precedents for a renewed, upgraded style of multilateral conferences in an open, inclusive, and representative environment, with the participation of all stakeholders. It's important to build upon the experience achieved so far, with a view of exploring possible avenues for strengthening the existing Internet governance mechanisms, adding to their legitimacy to the international community in adequacy to the guiding WSIS principles. The IGF advanced on the path towards the full implementation of the mandate in terms of participation, scope, thematic agenda, organization of work, and possible results. It contributed to the incremental process that aims at accomplishing the fulfilment of the forum's mandate by 2010, at the end of the five-year period initially established by the Tunis Agenda. In terms of substance, besides the important themes of access, diversity, openness, and security, the Rio meeting contributed to broaden the debate on Internet governance by devoting a main session to the discussion on critical Internet resources and the improvement of the global mechanisms in charge of their management. In terms of organization of work, another improvement achieved in Rio was the sharing among different stakeholders of the chairmanship of main sessions. One representative from civil society chaired the main session on openness. And another from the private sector chaired the main session on security. It's also worth noting the interest of Brazilian high

government officials as shown by the participation of four Brazilian ministers and a number of other authorities at the IGF events. On respect of critical Internet resources, let me note that the main session of critical Internet resources considered the conformity of existing arrangements for the management of Internet physical and logical infrastructure vis-à-vis the WSIS principles ICANN's multistakeholder decision-making process is an interesting experiment in terms of broadening the participation in decision-making processes. There are, of course, improvements to be made, as, for example, on the relationship between the GAC and the ICANN board. Governments should be allowed on equal footing to play their varying role and global public policy-making. In this respect, ICANN's ongoing reforms and their perspectives for the recommendations of ICANN as an international entity in its independence from any government should be followed with interest. On respect with diversity, the Internet offers unprecedented perspectives for the expression of cultural contents from all corners of the world, as well as for the creation, dissemination, recommendation, and diffusion of content. The conversion of this potential into reality requires that the Internet be managed for the benefit of mankind as a whole. Each individual should have the possibility to take part in the Internet in his own language, in forms that are in harmony with his or her values and cultural identity. The Internet should expand in a way that reflects in its content and addressing system the existing culture and linguistic diversity, along with the regional and local differences which characterize civilization. The particular needs of disabled people should be addressed through the creation and dissemination of specific referrals at affordable price, as well as by the adoption of accessibility standards by the industry. In respect to access, international connection costs are a burden for developing countries. In this respect, a fair environment for business competition on a global scale would contribute to an overall improvement in access conditions. Government should stimulate the establishment and the maintenance of such an environment whenever possible and take actions to correct market imperfections. If necessary, international financing arrangements should be developed to support investment in areas in which it's not commercially viable. Regional cooperation and Internet exchange points are particularly valuable resources to help reduce the demand on intercontinental backbones, thus reducing access costs. Regarding openness, freedom of expression is a fundamental human right that should be ensured and requires the free flow of information and content from diversified sources. More than any other means of communication, the Internet is capable of to embrace the cultural diversity and pluralism that characterize democracy. The conversion of this potential into reality requires the preservation of the open architecture features of the Internet. The new realities, possibilities, and challenges brought by the Internet should be considered in the debates on intellectual property, with particular attention to aspects such as privacy and right of information, to information and access to knowledge. Different intellectual property regimes and software licensing models translate into distinct economic perspectives in innovation and insertion in the digital economy, particularly in developing countries. As regarding security, apart from the stability of the Internet, data integrity and content reliability, user protection and the fight against cyber crime should be given utmost priority in the building of a people-centered Information Society. In this regard, the right to privacy and the due process of law should always be taken into account. Given the borderless nature of the Internet and cyber crime, international cooperation in technical legal fields are fundamental tools in cyber crimes, countering and prevention. In this sense, the possibilities of legal harmonization on cyber security should be evaluated in light of specific national priorities, and the distinct realities of the developed and developing world. Governments have a fundamental role in making of cyber space a secure environment for human interaction and should count on the help of civil society and the private sector for this purpose. There are certainly lessons to be learned and

improvements to be made for the next IGF meetings. Among those improvements, I would like to stress the need for reviewing the IGF preparation process in order to allow for a broader, more balanced and more representative participation from all stakeholders, as well as from all regions of the world. It's important to bring into this process as much diversity of opinions as possible, taking into account gender balance. The criteria, nomination, rotation, proceedings, and the role of the advisory group or other structures to be used as a supporting structure to prepare and conduct the meeting could be improved. Thank you very much to all of you.

**NITIN DESAI:**

In keeping with the multistakeholder character of this meeting, we felt it would be valuable if the closing session should also have reflections from all stakeholders, from civil society, private sector and governments.

**DELPHINE NANA MEKOUNTE:**

In Internet governance civil society were worried about the needs to ensure freedom of expression, the digital divide between the countries of the north and the south, critical internet resources and access and the rising cyber crime. Access is a very important issue for developing countries, as is respect for linguistic diversity. Civil society welcomed the commitment by all to the gradual establishment of the new Information Society, but that new Information Society requires new governance in order to make Internet accessible to all. To speak of Africa, African countries cannot be left behind in this revolution. It must be a pluralist, transparent, democratic revolution. That is why ACSIS has proposed an agenda for African priorities in Internet governance. This study will be submitted to the next forum in New Delhi in 2008. In light of the forgoing we would recommend once again to the UN in general and the Secretariat in particular to pay special attention to strengthening arrangements for granting fellowships to people from civil society and developing countries, and to the granting visas of developing countries' nationals in order to facilitate even more the physical participation from civil societies and developing countries. We need to strengthen linguistic diversity. In this connection, the working documents need to be translated into the UN languages. We need to strengthen the multistakeholder interaction between governments, the private sector and civil society. We need to make the committees of the IGF more efficient and more effective.

**PETER EDUARDO SIEMSEN:**

I am speaking on behalf of the members of the International Chamber of Commerce (ICC) and its BASIS initiative (Business Action to Support the Information Society). ICC is the world business organization with hundreds of thousands of member companies and associations in over 130 countries from all sectors. Business has a fundamental role in the continuing development of the Internet. Nurturing this role at the national, regional and international levels is essential to our common objectives of bringing the benefits of the Internet and the Information Society to a global audience. We are pleased to see an increase in business participation at this year's IGF, which reflects our commitment to multistakeholder dialogue. It is wonderful for business to take part in this process. As ICC's secretary-general Guy Sebban highlighted in his opening remarks, ICC and BASIS members support the IGF because it provides a unique opportunity to exchange views and best practices on a wide variety of important policy and practical issues. We believe such dialogue is essential to bringing the economic and social benefits of the Internet to more people. The strength of this new model of international cooperation is convening all stakeholders on an equal footing. So, what has been achieved this week? This event has contributed to the fulfilment of the IGF mandate

arrived at in Tunis. We have worked together to share experiences regarding important Internet governance-related issues that can only be effectively addressed by cooperative efforts of all actors. We have seen a rising tide of consciousness with regard to security through collaborations, and preventing abuse of the Internet. We particularly welcome the discussions on child protection and look forward to constructive dialog with other interested parties in the near future. We have underscored the vital importance of establishing an enabling environment which promotes investment, fosters entrepreneurship, and stimulates innovation. Key factors of this environment are: Strengthened cooperation on developing Internet infrastructure; expanded Internet access; pro-competitive policy frameworks; liberalization, and protection of intellectual property rights. We have highlighted that as the Internet and Internet applications continue to evolve to an accelerating pace, we must ensure that policy approaches do not block innovation or restrict user choice. We have also heard through the discussions this week how much important all of us place on innovative applications and service that are allowing people to share more information and promote cultural diversity. It is, however, important to remember that to maximize the opportunities that these new applications and services provide, they must be supported by access and skills resulting from training and education. Without literacy and computer skills beginning in schools and continuing throughout a person's career, people cannot maximize their use of the Internet. We have seen the positive effect that public Internet access has had here in Brazil through access initiatives in small towns. This week we have seen a mature and graduated discussion from those in Athens a year ago. The diversification of events has resulted in enhanced cooperation between the different stakeholders with a common understanding of the priorities going forward. ICC/BASIS plans to contribute our reflections on the important discussions that taken place in Rio for the record, and we understand other stakeholders plan to do the same. Business believes that IGF this week has been beneficial in a tangible way that will have long lasting benefits for all. As we leave Rio, we all need to reflect on our experience and look at how we can build on these to progress to the next level of understanding in India in 2008.

**MATTHEW SHEARS:**

The Internet community has supported, contributed to, and participated in the WSIS and the IGF, since their beginnings. Yet our commitment to sharing the Internet and the benefits of this technology with the whole world, regardless of race, color, politics, nationality, or any other differentiation among human beings or nations, predates the WSIS. At the Internet Society, we have been working to expand the reach of the Internet since 1992. The Internet community's goals and actions are consistent with the output documents of the WSIS and the principles and the purposes embodied in them. This community's engagement with all stakeholders in Rio is yet another clear indication of our commitment to multistakeholderism. We have organized workshops across stakeholders and sponsored speakers from around the globe. We have had productive discussions with governments, international organizations, civil society, and the private sector, all with the aim of pursuing our common objective of increasing the availability of and access to the Internet. We have all had a very productive four-plus days. The diversity of the sessions, the workshops, open forums, best practices forums, and, of course, the main panels has been truly rewarding. In fact, I would imagine that you've all suffered from the same challenge I have, which is where to choose and where to go. Fortunately, I found there were some strategically placed snacks along the hallways that gave us the energy to go to the many sessions without falling over from exhaustion. We have seen in Rio the continuation of this unique multistakeholder model in action. We have seen yet again the value of frank discussion on a range of important issues to the future of the Internet. Rio has reinforced the importance of a dynamic and collaborative

experience-sharing environment. The workshops are a true embodiment of this. We have had a robust discussion across the range of issues encompassed in the new theme area of critical Internet resources. The main panel highlighted the issues, but the workshops dug into them and gave all stakeholders an opportunity to discuss the issues in greater depth. The Internet community welcomes this dialogue and hopes that it will encourage further engagement by all stakeholders in the open policy development processes of the Internet organizations. Now we are on to Delhi, with the cumulative experience of IGF Athens and IGF Rio. Part of the IGF's purpose is to engage broadly across stakeholders and across regions. The ability to reach beyond the physical confines of an IGF is an expectation. Remote participation is therefore an essential tool. Yet, there was but one question for the access panellists through the remote channels at this IGF. This is not a criticism of the IGF Rio infrastructure, but this should cause us to think about how we make this event ever more relevant to those who do not have the wherewithal to attend in person. We must shape the IGF to encourage greater and more diverse participation. If we fail in this respect, the IGF will have failed. The IGF can undoubtedly evolve further, and I think we can all agree on this. However, there is, in true multistakeholder fashion, a diversity of views as to how it should evolve. We are of the firm belief that the IGF can evolve so it brings greater value to participants without becoming burdened by further processes and structure. Undoubtedly, there are some important issues that need to be addressed before Delhi. But they should not undermine this grand experiment. Defining success is always difficult for these types of events. It should not be measured by whether or not we can tick the boxes in the mandate, but, rather, by understanding how the main sessions, the workshops, and the best practices forums resonate with the participants and bring about change. Let me give you a very concrete example. Yesterday, after the workshop on the root server system and after the best practices forum on Internet exchange points, some government representatives approached the speakers, asking how they could go about installing root server instances and Internet exchange points in their countries. That, I would say, is success. And if those expressions of interest result in concrete actions back home, then the IGF will have had the type of impact we have been hoping for. This is what we should be seeking to build on for Delhi. Finally, I'd like to quote the UN Secretary-General, who said in his in his opening statement "This forum is modest in its means, but not in its aspirations. It may have no power to make decisions, but it can inform and inspire those who are in a position to make them." We must keep these words in mind as we take the IGF forward. Let us build on Rio and work together to create an IGF in Delhi that will inform and inspire all participants.

NITIN DESAI

We now come to the end. I'm glad Matthew spoke last. The Internet community has always been a little worried that this IGF was about governments wanting to take over the Internet. And I wanted to share with you just as we get to the end, the possibility that the reverse could happen. Sometime back, there was a competition of headlines 20 years from now. And the prize-winning headline was, "Government computer resigns." And that's more likely to be the truth than what you people are worried about. With this, the second IGF, the second town hall meeting of the Internet community, comes to an end.

## Workshops

The reports in this section are excerpted from the reports submitted by the workshop organizers. Full reports can be found on the IGF web site. Audio transcripts of the workshops can also be found at the IGF website.

It should be noted that the content of all workshops and other workshop reports was determined and controlled by the organizers of the workshops and was neither constrained nor moderated by the IGF Secretariat or by the Multistakeholder Advisory Group.

## Workshop Reports from Athens

### Approaches for Deploying IP-based Network Infrastructure in Developing Countries

*Organizers: Association for Progressive Communication (APC), and Collaboration on International ICT Policy for East and Southern Africa (CIPESA).*

*Panellists: Vincent Waiswa Bagire (Collaboration on International ICT Policy for East and Southern Africa); Howard Williams (University of Strathclyde); George Sadowsky (Global Internet Policy Initiative); Peter H. Hellmonds (Siemens Networks); Jean-François Soupizet (European Commission); Michael Silber (Michalsons Attorneys).*

Emphasis of the workshop was on sharing experiences and lessons that have been learned and on the deployment of IP-based infrastructure. Presentations and discussions during the workshop were structured around the three areas of policy, legislation and regulation, and business models adopted by the private sector.

In the area of policy, one of the key themes emerging from the workshop related to capacity building, in particular of regulatory authorities. Whilst there was initial disagreement about the level of capacity regulators from developing countries were thought to have, it was agreed that more capacity building was required in creating an environment that enables investment in infrastructure, and also to support such an environment.

In relation to an enabling environment, it was noted that traditionally, telecom restructuring/reform placed emphasis on the independence of regulator. This has however translated to an adherence to the title of 'independence' rather than addressing the conditions that create a need for independence. Thus, we now have situations in which countries with 'independent' regulators are still lacking in transparency, clarity, and predictability in areas of legislation and regulation.

Lack of transparency, clarity, and predictability were identified as factors discouraging investment by private sector organizations in developing country markets. Other inhibitors include uncertain revenue streams and the high risk businesses associate with developing markets. The private sector is encouraged by countries in which the rule of law exists and is seen to be applied and enforced in a reasonable amount of time (predictability). Governance issues (excessive bureaucracies, high taxation etc.) are therefore key (from the perspective of the private sector) to creating an environment which attracts private sector investment. Also important is the vibrancy of local businesses; as a private sector panelist stated: "... you don't want to be somewhere where all you deal with is the government."

Issues relating to the ease of (both local and international companies) operating in the

local environment were also touched upon. Here it was noted that there are geographic variations to the challenges facing access and initiatives aimed at addressing them need to be tailored and targeted to match the levels in which these challenges occur. It was also noted that some challenges lie outside the domain of conventional Telecommunications and Internet governance. For example energy policies, particularly relating to the supply of electricity in developing countries, have a direct impact on the availability, use, capacity, and requirements of terminal devices, and need to be thought through in discussing access. As a comment made during the workshop reflected: "... could we end up with the creation of all these networks and then not have the means to connect?"

## Anti-spam Toolkit: a Multi-stakeholder, Multilayered Approach

*Organizer: Organisation for Economic Co-operation and Development (OECD).*

*Panellists: Jean-Jacques Sahel, Department of Trade and Industry, United Kingdom; and London Action Plan; Dimitri Ypsilanti, Directorate for Science, Technology and Industry, OECD; Andrew Maurer, Australian Department of Communications, Information Technology and Arts; Suresh Ramasubramanian, Outblaze, India; and APCAUC; Laila Zouak, Agence Nationale de Réglementation des Télécommunications (ANRT), Morocco; Huang Chengqing, Secretary General, Internet Society of China (ISC), China; Jonathan Curtis, Chairman of the Board of Directors for The Messaging Anti-Abuse Working Group (MAAWG). Robert Shaw, deputy director of the International Telecommunication Union (ITU) Strategy and Policy Unit (SPU)*

The chair, in opening, noted that spam has become a security threat, and constitutes a major obstacle to the development of the Internet. Security breaches, viruses and botnets are in the headlines daily. In this context, action is needed to address the issue at the global level, involving developed and developing countries and emerging economies. In these countries access to the internet is severely impaired by spam and related threats, reducing the positive impact of ICTs on economic and social growth.

The chair announced the creation of a new site [www.StopSpamAlliance.org](http://www.StopSpamAlliance.org). The website aims to provide a single entry-point for those working in the anti-spam field, and help coordinate international action against spam more effectively, improving information sharing and co-operation.

The meeting began with the OECD setting the scene by presenting the Anti-Spam Toolkit developed by the OECD Task Force. It was stressed that countries needed to begin in combating spam to ensure better co-ordination at the national level of anti-spam agencies and to improve international co-operation on spam to develop effective and harmonized anti-spam strategies.

The OECD Anti-Spam Toolkit includes eight inter-related issues, addressing regulatory approaches, enforcement concerns, industry driven initiatives, technical solutions, education and awareness tools, co-operative partnerships against spam, spam metrics, and improved cross-border cooperation.

The Toolkit and its background documents, as well as the new website constitute a good repository of material and resources which are available to all interested countries and other parties willing to take action against spam, develop comprehensive anti-spam strategies, and concretely co-operate with other stakeholders.

The discussion touched upon the different elements of a comprehensive anti-spam strategy. The importance of legislation and enforcement were stressed, at the same time reiterating that policy-makers should work with private sector operators in order to involve operators in the development of a solution and complete legislative instruments with best practices and technical solutions. The active involvement of ISPs is considered fundamental in developing countries, where enforcement authorities alone

do not have the financial and technical instruments to fight spam. The importance of international co-operation and exchange was stressed by participants, together with the need for co-operation to include practical training for ISPs and policy-makers in developing countries.

Participants underlined the importance of not limiting international co-operation to government- to-government, but extending it to people on the ground, technical communities and operators.

The necessity to link co-operation with capacity building, especially in developing countries, was reiterated, in particular considering that spam – as well as malware – are evolving targets. Although recommendations already exist, training initiatives would be essential to implement these recommendations appropriately. The private sector is often not aware of these specific needs, and more information exchange should take place with countries needing support.

The anti-spam toolkit was addressing spam in particular, but indeed the multilayered approach adopted, as well as the network of stakeholders created to address this issue, will be useful also in addressing new online security threats such as malware and online fraud.

## A2K & Freedom of Expression

*Organizers: Association for Progressive Communications (APC), Computer Professionals for Social Responsibility – Peru, Consumer Project on Technology (CPTech), Egypt's Library of Alexandria (Bibliotheca Alexandrina), Electronic Frontier Foundation (EFF), Electronic Information for Libraries (eIFL)Free Software Foundation Europe (FSFE), Google, International Federation of Library Associations and Institutions (IFLA), IP Justice (IPJ), South Centre Innovation, Access to Knowledge and Intellectual Property Programme (AIAPP), Sun Microsystems, Third World Network (TWN)*

*Panellists: Susan Struble, IT Standardization and Strategy at Sun Microsystems; Dr. Magdy Nagi, Egypt's Library of Alexandria (Bibliotheca Alexandrina); Dirk Voorhoof, Professor at Ghent University and Copenhagen University, member of Legal Human Academy and expert of the Council of Europe; Mary Wong, Professor of Law at Franklin Pierce Law Center and the IP Academy of Singapore; Cristiano Berbert, Representative from the Government of Brazil; Andrew McLaughlin, Head of Global Public Policy at Google.*

*Chair: Robin Gross, Attorney and Executive Director of IP Justice*

Susan Struble from IT Standardization and Strategy at Sun Microsystems addressed challenges to technical interoperability and the free flow of information on the Internet from software patents.

Dr. Magdy Nagi from Egypt's Library of Alexandria (Bibliotheca Alexandrina) discussed the needs of online libraries to provide access to information and encourage development and the role the public domain and copyright right limitations and exceptions play in that goal

Dirk Voorhoof a Professor at Ghent University and Copenhagen University, member of Legal Human Academy and expert of the Council of Europe discussed international human rights conventions and their relationship to intellectual property law, access to knowledge, and freedom of expression. He expressed a need for a human rights approach to copyright

Mary Wong, a Professor of Law at Franklin Pierce Law Center and the IP Academy of Singapore addressed special online challenges to freedom of expression and access to knowledge from "digital locks". She explained that anti-circumvention laws should be drafted loosely as permitted by WIPO's Internet Treaties.

Cristiano Berbert from the Government of Brazil discussed efforts in the developing

countries to provide access to knowledge and promote free expression. He expressed concern over a “one-size-fits-all” approach to setting intellectual property rights and the need for developing countries to have flexibility in drafting IPR laws.

Andrew McLaughlin, Head of Global Public Policy at Google addressed the barriers Google faces in providing access to knowledge from unbalanced copyright law. He highlighted Google’s online library service and the role fair use and the public domain plays in providing access to knowledge.

## Building Human and Institutional Capacity for Meaningful Participation in Internet Governance Issues

*Organizers: Bill Graham, Director- International Telecommunications Policy, Industry Canada; Guy Seban, Secretary General, International Chamber of Commerce*

*Panellists: David Appasamy, Chief Communications Officer, Sify Limited, India; Raul Echeberria, Executive Director, Latin American and Caribbean Internet Addresses Registry, Uruguay; Arthur Reilly, Senior Director, Strategic Technology Policy, Cisco Systems, United States; Richard Simpson, Director General, Electronic Commerce, Industry Canada; David Souter, Managing Director, ICT Development Associates, United Kingdom; Valerie D’Costa, International Director, Info-Communication Development Authority, Singapore*

The moderator led off the discussion by suggesting that panelists discuss how to participate in the development of the Information Society and how to enhance capabilities of those participating by taking stock and sharing experiences.

Panelists discussed their experiences in developing policies with multistakeholder input. An example from Singapore was provided- by moving from a top down approach in the development of a domestic policy, the government was more consultative and brought in other perspectives. Canada also discussed various models of public private partnerships. Policy toolboxes involve a division of roles and responsibilities. While the establishing the legal and policy frameworks necessary to promote e-commerce is a governmental responsibility, the private sector has a distinct role in helping to prevent negative experiences such as spam and other cybercrime by taking proper security measures on the networks they own. Panelists also addressed the need for national ICT strategies, believing that national capacity is necessary before international capacity can be established. Panelists and discussants agreed that shared experiences with a variety of stakeholders is valuable because it gives all stakeholders a better perspective.

Industry elaborated on how business contributes to policy development. They stay in contact with other stakeholders through real partnerships which go beyond public private relationships. The private sector is able to transfer experiences through subsidiaries or business relationships with SMEs. Panelists and discussants agreed that information sharing is well organized and well done within business. A discussant also encouraged the private sector and civil society to think about how to encourage governments to engage in effective dialogue.

Panelists and discussants seemed to agree that discussions should be on an issue by issue basis, the right people had to be engaged at the right time. Government panelists have found that asking specific questions also helps frame the debate for sectors on the demand side of the market. Financial institutions were cited as an example.

Panelists agreed that tenacious outreach with a specifically framed debate was vital. Panelists suggested that countries identify a champion for outreach, or a coalition of sectors. Success stories using this approach included use of a scorecard sent out through chambers of commerce in Singapore and the Italian government’s ability to

attract involvement in consultations between WSIS and the IGF through creating a new institution.

Panelists debated whether meaningful participation was dependent on increased training. Some believed that participation in the development of technical standards, guidelines and rules necessitated a basic technical competence and access to an infrastructure to do outreach. The availability of a technical infrastructure facilitates the creation of networks of people. Companies are building human and institutional capacity by developing programs and materials to increase the number of people with IT training to participate effectively. Cisco Academy, for example, exists in 160 countries in the world, and offers college level classes in technical issues by partnering with educational institutions and intergovernmental organizations such as the UNDP and ITU. The importance and success of gender-based programs was highlighted. Panelists cautioned that training should focus not on transmitting knowledge, but on facilitating skill development; it's about building a broad range of understanding that's required to engage in dialogue with other actors.

Others believed that simplifying the process was required rather than providing more resources or training. Some panelists argued that there is not a direct relationship between capacity building and participation.

Some thought another issue is a lack of resources. Governments have to decide priorities and often have to focus on dealing with crisis rather than training.

Panelists expressed that one way to promote participation given lacking resources is to bring information and issues to the regional or national level. Indeed, panelists referenced that stakeholders do participate at local level. One outcome of WSIS was that government representatives were identified to each other. A problem was cited, however that there is a high turnover in representatives following Internet governance issues, meaning that they have to consider how to maintain capacity.

A variety of models may be necessary to take into account the differences between north and south. For example, India was presented as having complex needs. To address these needs in part, they establishing cyber cafés in postal offices in every village to increase access.

## Building Local Legal Capacity on Internet Governance

*Organizers: The World Bank, Alfa-Redi, Cyberspace Law Committee, Business Law Section, American Bar Association, Diplo Foundation, Global Internet Policy Initiative, Internet Society – Bulgaria, Science and Technology Law Section, American Bar Association*

*Panelists: Peng Hwa Nanyang Ang, Technical University, Singapore; Fernando Barrio London Metropolitan University; Pierre Dandjoui, UNDP; Jim Dempsey, Center for Democracy; Kristine Dorrain, National Arbitration Forum; Hanne Sophie Greve, Court of Appeals, Norway; Jovan Kurbalija, Diplo Foundation; Veni Markovsky, ISOC Bulgaria; Fred Tison, Microsoft*

*Moderator: David Satola*

The workshop focused on building legal capacity of policy makers, legislators, regulators, legal practitioners and users, by exploring the relationship that actions at the national level (laws, judicial decisions, etc) have on the development of international legal norms, as well as the effect of actions at the international level have on the evolution of national laws.

Mr. Dempsey set the stage for the workshop by mapping substantive legal issues normally associated with Internet Governance against their “national” or “international”

character. He stressed the importance of national telecommunications law and regulation as a key issue affecting the whole Internet medium, and that one practical lesson learned in developing national legal frameworks was technology neutrality.

The workshop then examined three facets of the international legal dimension affecting Internet governance – public international law, other international initiatives, and industry-driven standards and codes of conduct. First, Judge Greve discussed the impact of public international law, using the European Court of Human rights as an example. She emphasized roles that different formal, public international law *fora*, conventions and even customary international law play in influencing countries' behavior. The workshop then looked at other international initiatives, such as domain name dispute resolution, played in national governance. Ms. Dorrain gave examples from the UDRP and raised questions about why countries adopted such rules (and why not), as well as whether reforms in UDRP would be desirable. Finally, Mr. Tipson addressed the process by which industry standards and codes of conduct, for example, are adopted and implemented, stressing the importance of balanced multistakeholder involvement and consultation in their development.

The workshop then moved on to three case studies of development of national frameworks for Internet Governance. In the first case study, Mr. Markovski gave an overview of the bottom-up approach taken in Bulgaria, including, the role that Bulgarian NGOs and civil society played in formulating an approach to addressing Internet Governance issues in the WSIS process. He emphasized the importance of first addressing governance issues locally, and then moving on to international governance issues. In contrast, Dr. Ang noted the top-down, government-driven approach adopted in Singapore, noting that the high level of trust created in the process in Singapore also led to a high level of Internet penetration. Dr. Ang noted the phenomenon of the “first mover disadvantage”, and cited examples where early attempts at addressing legal issues such as e-commerce, though path-breaking at the time, may now becoming obsolete and in need of reform. Mr. Barrio spoke about efforts at shrinking the digital divide were policy-driven at the international level, but had the effect of restricting access to content, rather than increasing connectivity. He also observed that, in some circumstances, the development of national legal frameworks were “unwilling followers” of global ICT trends, and that traditional models of capacity building would need to be revisited if they were to be effective. It was noted from the floor that a regional initiative in South America has been successful in bringing together state and non-state actors in evolving regional policy on these issues.

In its final section, the workshop addressed questions of the role that multilateral organizations can play in developing capacity as well as identifying concrete recommendations for addressing capacity building issues. Mr. Dandijou noted a number of international organizations were involved in certain issues affecting Internet Governance, but also noted that national actors could better leverage those institutions to develop national legal frameworks, but that other factors – such as a lack of a common vocabulary – posed limitations. He recommended, in practical terms, that different national actors undertake a coherent approach with these international institutions and emphasized the need for advocacy, knowledge sharing and coaching as a way to better articulate their positions. Mr. Kurbalija that noted that capacity building is not a one-size-fits-all proposition and described different capacity building programs tailored for different needs. He also emphasized the fundamental importance of inter-professional communication in developing Internet governance frameworks – different actors need to engage with each other - governmental actors, technologists, civil society and academia – in a dynamic way.

## Content Rights (for the Internet Environment)

*Organizer: World Broadcasting Union*

*Panelists: David Wood, Switzerland (moderator), Riyadh Najm, Saudi Arabia, James Love, United States, Fred Kitson, United States (standing in for Ronald Zink), Arne Wessberg, Finland*

The meeting began with an introduction to the range of issues associated with Content Rights for Internet.

- How are Content Rights to be arranged in the Internet environment?
- Do we need to 'rethink' the idea of 'copyright' for the Internet environment?
- How can we arrange that content has a value?
- How can we protect the integrity of content
- What is 'fair use'?
- Before Content Rights become important, there has to be access.
- What are 'social objectives' for content rights?
- How should we cope with User Produced Content?
- How should we cope with User Produced Content which includes other creator's material?
- The distinctions between Creative Commons and DRM

In the discussion, the main interest was centred on the following:

- The potential for creation of an Internet environment where the needs of society and the content creator can both be met
- The greater need for DRM systems for entertainment content and software
- The recognition of the need for DRM where income is needed.
- The nature of CC and DRM as contracts rather than laws.
- The need to consider the needs of the future environment, including Internet 2.0, and the need to consider the danger of the DRM being used to infringe personal privacy
- The need to consider Open Standards or Open Source DRM systems
- The use of the 'broadcast flag' concept to deter Internet redistribution of broadcast content
- The use of the Microsoft Zune technology which includes P2P and DRM

There was general agreement that an arrangement needs to be found which allows both creative commons type solutions and DRM solutions, and that it is also worth examining whether an arrangement whereby the onus is on content providers to justify the use of DRM is practical, though this should not be such as to prevent reasonable use of DRM systems.

## Content Regulations from Gender and Development Perspective

Organized: APC Women's Networking Support Programme ([www.apcwomen.org](http://www.apcwomen.org))

*Panellists: Hanne Sophie Greve, Former judge at the European Court for Human Rights, Judge for the Gulating High Court, Norway; Malcolm Hutty, Head of Public Affairs at LINX (the London Internet Exchange), Chair of the Network Security Information Exchange, member of the Home Secretary's Taskforce for Child Protection on the Internet; Namita Malhotra Legal Researcher at the Alternative Law Forum in Bangalore, India, and teaches a course on "Rethinking Media Laws" at a women's college; Michael Silber, Wireless Application Service Providers' Association (WASPA) in the Republic of South Africa.*

*Moderator: Natasha Primo, Women'sNet*

The following issues were discussed:

- Illegal content is fixed (there is a law, an agreement) within a particular context, while harmful content is relative, and the borderlines between harmful and non-harmful content are very slippery; indeed the definition of illegal depends on national regulations but harmful content is subject to interpretation various contexts and location; the question is: thereby can we agree on the universally harmful categories/types of content?
- Censorship and any other action to stop or control content that is sexually explicit or political turns into an invitation to greater discourse and leads to its greater promotion
- With content regulation, we are handing over a decision of what is harmful to the state; content regulation is opening spaces for monitoring and control in other areas such as freedom of expression, racial profiling, or reproductive rights
- ISPs are pushed into a controlling role over the network by companies, by parents and regulators; if content regulation is applied, identifying who is in the position to implement is critical; responsibility must be applied to the right parties; the ISPs think that they should not be subject of regulation because they have little knowledge about the content that goes through their networks; in this context, it is probably better to place regulations on content producers or content viewers.
- Should we pursue a liberal or a protective attitude? Should we define for children what content they can access, or rather let them decide what they want to access; better than censorship is to educate children about harassment on the Internet and bring their attention to some risks they need to manage
- How can those who we seek to 'protect' - such as children, women and other "vulnerable" groups - be involved in developing policy and regulation around content regulations that are supposed to benefit them?

## Enhancing Multi-Stakeholder Participation in ICT Policy Making: An Exploration of Effective Policy Processes That Enhance Access to ICTs and the Internet

*Organizers: Global Information Infrastructure Commission (GIIC), World Information Technology and Services Alliance (WITSA)*

*Speakers and Panelists: Phil Bond, President, WITSA, and President, Information Technology Association of America; Masanobu Katoh, GIIC Commissioner; Corporate Vice President and President, Law and Intellectual*

*Property Unit, and Security Export Control Headquarters, Fujitsu Limited; Hideo Shimizu, Vice-Minister for Policy Coordination (International Affairs), Ministry of Internal Affairs and Communications, Japan; Hisham El-Sherif, GIIC Commissioner and Regional Director for the Middle East; Chairman and CEO, IT Ventures; Fred Kakaire, Chief Executive Officer, Uganda Chartered Healthnet; Nasser Fouad, Director, Egyptian Information Technology, Electronics and Software Alliance; Waudo Siganga, President, Computer Society of Kenya; Abdullah H. Kafi, Bangladesh Computer Samity; Managing Director & CEO, JAN Associates; Nizar Zakka, Chief Executive Officer, Professional Computer Association of Lebanon & Union of Arab ICT Associations*

The aim of this workshop was to explore effective means by which representatives of different sectors of society in individual nations can work together – and *have* worked together –to foster adoption and adaptation of public policies likely to enhance access to ICTs and the Internet. This topic, the workshop organizers and participants felt, was consistent with the “capacity building” emphasis that has been at the heart of so much of this first meeting of the IG Forum.

While it would be an exaggeration to report that participants left the workshop with any hard and fast rules, recommendations, or bursts of new insights, they did hear a number of success stories – from Egypt, Bangladesh, Uganda, and Lebanon – about how business people, along with public officials, academics, and researchers have, in fact, worked collaboratively to, first, abolish particular regressive policies that were punitive toward or inhibiting of ICT diffusion, and second, to foster adoption of new laws and regulations that gave birth to new applications of ICTs – particularly in the realm of rural health services – and that in other ways resulted in a greater diffusion of ICT capabilities.

At the end of the workshop meeting, the moderator, GIIC Commissioner Hisham El-Sherif of Egypt, concluded that it was evident from the case histories that were presented that there is power in partnerships. Participants agreed that it was precisely this realization – the power of partnerships in changing and shaping the thinking of public policy makers – that was as overarching a theme as any other that came from the discussions.

## Equal Access on the Web

*Organizer: W3C Web Accessibility Initiative*

*Panelists: Shadi Abou-Zahra, W3C Web Accessibility Specialist, Norbert Bollow, SIUG President and Design4All.ch Member, Nikoloas Floratos, e-ISOTIS European Project Coordinator*

*Chair: Daniel Dardailler, W3C Associate Chair*

The Web offers the possibility of unprecedented access to information and interaction for many people with disabilities. That is, the accessibility barriers to print, audio, and visual media can be much more easily overcome through Web technologies. Moreover, the Web is an increasingly important resource in many aspects of life: education, employment, government, commerce, health care, recreation, and more. It is essential that the Web be accessible in order to provide equal access and equal opportunity to people with disabilities. An accessible Web is a key enabler of the participation and inclusion of people with disabilities in the information society.

This Workshop explored issues related to equal access and equal opportunities for people with disabilities as stated in the commitments set out in paragraph 90 of the Tunis Agenda. It examined the needs of people with disabilities in a rapidly growing and evolving Web. The panelists presented some of the user needs, current practices in addressing these needs, and lessons learned from the various approaches. While the adoption and implementation of Web accessibility is an on-going the discussion, the following are the main conclusions from the Workshop:

- Accessibility barriers are denying people with disabilities from equal access on the Web, a key media of the information society;
- Fragmented technical standards for Web accessibility are slowing down the adoption and implementation in content and tools;
- There is a significant lack of awareness and education for Web accessibility amongst developers and decision makers;
- Web accessibility certification is one potential approach for labeling accessible content, and there appears to be a high demand for this from some parties.

## Exploring a Framework Convention on the Internet

*Organizers: IT for Change, Bangalore; Hivos, Netherlands; Panos Institute , West Africa - CIPACO Project; Third World Institute (ITeM), Uruguay; Foundation for Media Alternatives, Philippines.*

*Panelists John Mathiason, Internet Governance Project, University of Syracuse, William Drake, Graduate Institute of International Studies in Geneva, Pankaj Agrawala, Joint Secretary, Ministry of IT, Government of India, Erick Iriarte Ahon, Alfa-Redi, Bertrand de la Chappelle, French Government's Special Envoy for the Information Society*

*Moderator: Parminder Jeet Singh, IT for Change*

The moderator introduced the panelists and suggested that each of them may address the issue in two parts: first, to identify and clarify the nature of the 'public policy crisis' that the Internet Governance may be facing today and secondly, to propose solutions to this crisis and consider whether a Framework Convention like process could be a suitable policy response.

The panelists and discussants responded to the first issue in divergent fashion. One panelist and a couple of discussants expressed the view that the internet may not be facing any public policy crisis. They suggested that several governance institutions already existed and were functioning and that there was no point in creating new ones. Some took the view that the general principles which should regulate the Internet were already accepted internationally and that the WSIS documentation encapsulated all of these. Most of the panelists and discussants however took the view that the Internet was buffeted by many public policy problems/issues that may be of a substantively new character and may need a different public policy response.

The Workshop drew varied comments to the second question on the appropriate responses to these policy concerns. Some panelists and discussants were of the view that a Framework Convention was both necessary and possible in the near future. A convention approach was necessary to ensure that mutually agreed general principles, representing public interest, can be applied to the development and expansion of the internet. Three proposals on the shape and content of a Framework Convention like process, and its possible outcome, were put forward.

- APC's proposed Charter of a Bill of Rights for Internet extends existing human rights protections to the internet as well as developing some new principles relating to the internet architecture and open standards based design.
- The Declaration of Lima, 2003, is another effort to develop a statement of principles for Cyberspace akin to the public international law relating to the Law of the Sea.

- A third source of substantive principles for an Internet related Convention would be to elaborate on WSIS principles in more specific contexts.

As the Tunis Agenda had wide inter-governmental support and the other stakeholders had participated in its adoption it could be the basis for future development of convention principles. While a wide range of institutions may be allowed to implement and carry out the mandate of this convention it was suggested that a statement of general principle may be required at this stage of the development of the internet.

There were two kinds of opposition to the idea of a Convention that embodied general principles. First, it was suggested that a Convention is only suitable for inter-governmental arrangements and that as internet governance was committed to a multi-stakeholder process we will need to think beyond the existing international law instruments. Secondly, it was suggested that it was futile to think in terms of a single body of general principles which could respond to the heterogeneous and distributed character of the internet. It was suggested that such a statement of general principles could freeze the technological development of the internet and further internet law and policy may end up not being responsive to the local contexts and concerns which drive its adoption and acceptability.

The panelists and discussants attempted to move beyond these various oppositions and several options emerged. First, it was suggested that it is useful to start from the normative universe that governs the internet in terms of the technical architecture of the internet itself. So if the internet is characterized as a 'network of networks', we may think of a framework of principles to be evolved as a 'framework of existing frameworks of principles'. It was noted that evolution of some kind of a public policy framework is also mandated in paragraph 61 of the Tunis Agenda. So the task we should commit ourselves to is to critically examine the existing frameworks of local and international regulation of the internet to eliminate redundancy and consolidate and restate general principles which animate existing frameworks of regulation.

The second mode of reconciling these varied positions is to focus on developing protocols of good governance which may then be used to confer or deny legitimacy to the functioning of existing institutions of governance as well as those to be created hereafter. These protocols of good governance like the TCP/IP protocol will be process principles which are neutral with respect to the substantive principles which may emerge from these governance frameworks. They will include the process through which agenda setting, participation in the deliberation process, decision making and then implementation of principles will take place in the field of Internet governance. If we can arrive at a consensus among the multi-stakeholders in the internet governance arena about the content and adoption of these protocols at all institutions of internet governance at all levels then significant progress could be made.

## Greening Development through ICT and Civic Engagement

*Organizers: Association for Progressive Communications, BlueLink.net, UNECE ICT Group for Development*

*Panellists: Milena Bokova, BlueLink.net, Bulgaria; Hans Hansell, Chairman UNECE ICT Group for Development; Michael Stanley-Jones, Secretariat to the Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters (the Aarhus Convention); Heather Crech, Director, Knowledge Communications, International Institute for Sustainable Development (IISD); Julian Casasbuenas, Director, Colnodo, Colombia;*

*Moderator: Pavel Antonov, BlueLink, Bulgaria / IT for environmental sustainability group coordinator, Association for Progressive Communications*

The workshop sought synergies in policy and technical solutions bridging Internet

Governance and other Information Society policies on one side, and the environmental sustainability policies' paradigm on the other. This workshop was a step towards bridging this paradigm gap and provided a list of possible solutions and areas of further policy work:

The immense potential of the Internet and ICTs to facilitate improvements of environment and sustainable use of nature's resources creates a vast area for policy synergies. This potential needs to be realized and reflected in the further Internet Governance developments, while at the same time ICT policies need to be integrated into legislative and regulatory frameworks on:

- decreasing emissions of harmful substances in the environment;
- public access to information regarding environment and human health;
- transparency and good governance regarding environmental issues;
- equitable distribution of resources;
- corporate responsibility and fair trade; and
- all other policy fields related to environmentally sustainable development.

The existing parallel between the guiding principles of Internet Governance and the principles employed by environmental sustainability policy instruments like the Aarhus Convention, needs to be further explored and exploited. Common features and lessons learned include:

- Principle of subsidiarity in decision making which is inherent for sustainable development policies is particularly relevant for Internet Governance and ICT policies;
- Multi-stakeholder involvement – already implemented by the Aarhus Convention;
- Broad public participation in an international fora – already implemented by the Aarhus Convention;
- Regulatory framework that obliges governments and the business to maintain electronically environmental databases and proactively share information with the public by means of telecommunications networks, as already implemented by the Aarhus Convention and its protocol on Pollution Release and Transfer Registers.
- Self regulation mechanisms like electronic public consultations and a formal compliance mechanism have already been tried and implemented by the Aarhus Convention;
- Special focus on offsetting and minimizing the pressure on environment and human health by Internet and information technology itself, including:
  - electronic waste,
  - energy resources for powering the Internet,
  - negative consequences on the environment by Internet infrastructures, and

- negative impacts of radiation and transmission including satellite, cell, and wireless. Internet and ICT's positive impacts on reducing the pressure on environment and resources need to be maintained and promoted further.

## Internet Governance as a Tool for Participation (Democratization and Empowerment)

*Organizer: Conference of NGOs in consultative relationship with the United Nations*

*Panelists: Ambassador Janis Karklins (Permanent Representative of the Republic of Latvia to the UN in Geneva), Mr. Axel Plathe (UNESCO), Ms. Titilayo Akinsanmi (WSIS YC / Global Teenager Project, Member of the IGF Advisory Group), Ms. Miriam Sapiro (Summit Strategies International, LLC) , Ms. Chat Garcia Ramillo (Association for Progressive Communications) , Mr. Teanau Tuiono (Indigenous Caucus), Mr. Rik Panganiban (Social Science Research Council, New York), Mr. Malcolm Harbour (Member of the European Parliament)*

*Moderator: Ms. Renate Bloem (Conference of NGOs)*

The development of the Internet and empowerment are two interlinked notions. The vision of participation of each actor within the Internet governance Forum should take into account two major shifts in the participation modalities in this “*new forum for multi-stakeholder policy dialogue*”

Multi-stakeholder: It would make sense in the Internet context that the various categories move together in a community within the Internet Governance Forum rather than keeping such a distinction between categories.

Policy dialogue: the perception of public policies, in particular in relation to the creation and the operation of the Internet, should also give more attention on the collaborative effort among participating actors. Empowerment of participants to dimensions related to the management of the Internet will contribute to help them contribute to public policy processes.

Internet governance policies and practices should allow indigenous people, as well as other marginalized group, to participate in public policies processes in particular in areas of their concerns. To that end, building ICT capacities of indigenous people should be supported. The web-based Indigenous Portal was underlined as a good practice in this regard.

The Internet is an enabler for participation for those who understand the Internet and who know how to use its opportunities. Further tools and education programs are needed to be developed to increase citizens' capacities and knowledge to use the Internet as a means for participation in public policy processes.

Given that the Internet is an enabler for those who can afford access, public policies should develop means for wider access. Such initiatives should not rely on small projects, but on the development of the needed ICT infrastructures.

Multilingualism represents a crucial dimension of the Internet as a participatory tool for broadened access and increased inclusiveness. UNESCO is equipped with the Convention for the Protection and the Promotion of the Diversity of Cultural Expressions, and is also involved the development of Unicode standards. At the same time, the risk of fragmentation of the Internet should further be addressed.

The question of Internet Governance and its relation with cultural rights of indigenous people was raised, in relation to existing standard setting arrangements. Intellectual property on the Internet should be considered with the view to protect cultural rights and

cultural identity of indigenous people.

Noting that in many areas, Internet access is still filtered and blocked, UNESCO has promoted advocacy as its main approach with government to support freedom of expression, in particular on the Internet. UNESCO works in relationship with civil society entities and is willing to support other networking. UDHR Articles 19 and 21 should be fundamental and streamlined references when addressing Internet Governance issues.

The future structures of the Internet Governance need to understand the various dynamic of E-Democracy (including the top down approach initiated by governance institutions, the bottom up approach initiated by groups of citizens, and the middle layer of CSOs aggregating and amplifying citizens' voice).

The good practices of some recent e-consultations include: need for very wide outreach to ensure large participation; involvement of the politicians; multi-modal ways of participation; middle layer partnership with CSOs concerned with the issues; multilingual consultation; use of bottom up technologies.

The Internet has offered increased opportunities for parliamentarians and elected officials to liaise and interact with their electors. However competences and capacity building should be further developed for the increased use of such tools. The impact of such e-services, such as health and education, should also be further explored.

However, it was noted that it was still difficult to raise awareness of citizens: the scope of democratic and participatory practices is still very local in nature. In addition, there is still some widespread mistrust at the individual level towards such tools, which is one of the various reasons why States have not widely used the Internet to empower citizens and democratize practices.

Participation in Internet Governance mechanism should also be broadly addressed. Negotiation skills should be gained by a larger number of actors to engage in the debate. Resources are also a condition for involvement of many stakeholders. An understanding of the process and opportunities offered by the Internet Governance Forum should be better developed among a number of stakeholders groups.

The IGF is a good framework to set a model of broad based participatory international policy dialogue, with the view to spread such large scale participatory methodologies to other mechanisms of the governance of the Internet.

## Internet Infrastructure

*Organizer: VeriSign, Inc.*

*Panelists: Brian Cute, Vice President, VeriSign Inc.; Christina Arida, Advisor, ICT Initiative, National Telecom Regulatory Authority, Government of Egypt; Lars-Johan Liman, Senior System Specialist, Autonomica AB; Izumi Aizu, Institute for HyperNetwork Society, Kumon Center, Tama University; Henrik Kaspersen, Chairman of the Cybercrime Convention Committee; professor at the Computer Law Institute in Amsterdam, the Netherlands*

The workshop focused on several Internet infrastructure security issues, including perspectives of two operators of Internet root servers on the attacks to the Internet root servers and methods for protecting against attacks; the importance to governments of infrastructure investment that facilitates access and enhances security; the value of international cooperation to respond to Internet-related crimes; and the need for increased awareness and participation of individual users in Internet security.

Brian Cute of VeriSign gave a brief overview of the hierarchy of the Internet infrastructure and discussed the exponential rise in attacks affecting the Internet root

system in relation to the normal traffic flow that has itself grown at a significant rate. He described how VeriSign, as the operator of two of the 13 Internet root servers, has taken a multi-faceted approach to ensure that its operations continue with 100 percent uptime. In particular, Mr. Cute discussed VeriSign's Regional Internet Root Server project that will replicate its platform in servers throughout the world. He summarized the importance of the Internet infrastructure security as encompassing five factors: capacity, redundancy, diversity, disaster recovery, and human resources.

Lars-Johan Liman addressed Autonomica's use of anycasting to enhance security of its operation of one of the 13 root servers. He noted that the anycast technology enables Autonomica to handle a higher load of traffic, thereby providing better service to local communities, rather than out of one location in Stockholm; and to defend against attacks. He noted that there are strategic challenges related to governance—he said root server operators are in agreement with the current arrangement in which VeriSign handles changes to the root zone file and propagates them to the other root servers; having multiple publishers, he argued, would be problematic. He also stated that operating a root server costs real money. Direct threats, he noted, include distributed denial of service attacks; the transmission of "packets of death" that kill software; social engineering threats; the input of bad data to the root if more any change is made; and false root servers.

Christina Arida of Egypt's National Telecom Regulatory Authority discussed the increased use of the Internet to provide governmental services to the citizens of Egypt, and how a secure infrastructure is essential to the provision of these services, as well as to the access of all citizens to the Internet. She announced the installation of a Regional Internet Resolution Server by VeriSign in Cairo. She noted that the server will be housed in a newly established data center, and that the server will, in addition to enhancing overall security for the Internet, also provide faster DNS responses, and better server access to Internet users in Egypt and throughout the surrounding region.

Dr. Henrik Kaspersen opened his presentation citing statistics of a recent study which found that Internet users are no longer able to protect their systems, with 67 percent of Internet users not aware of risks, and 62 percent being victim to Internet crime in the last year. He argued that we should have means to follow up and address the wrong doers and the Council of Europe Cybercrime Convention of 2001 is a promising means in that regard. In particular, he said, the convention seeks to: harmonize substantive law proficient in this field; harmonize procedural powers to investigate cyber crimes; and provide instruments for international cooperation between law enforcement bodies. He described the convention as a framework for further deliberation and extension, and said that the more countries participating, the more the system will work.

Izumi Aizu's presentation addressed the need for "Netizens" participation in Internet security. He argued that Internet users are not passive, and they are aware and skillful, and provide innovation at the edges of the Internet. He argued that the existing international cooperation frameworks, such as Cybercrime Convention, are either not global or not sufficient, and that few of the government organizations responsible for cyber protection have a multi-stakeholder approach or citizen participation. Their budgets are also not transparent. In the future, he said that a "Ubiquitous Network Society" requires a new form of governance that does more than rely on trust. He said that netizens need to be brought to the table in a meaningful way, and that a balance needs to be struck between security and other values—such as economic, human rights.

## ICT: Tool for Transparency

Organizer: Gov2u

Panelists: Vasilis Koulolias, Executive Director Gov2u; Marinos Papadopoulos, Attorney, J.D., M.Sc.; Nikos Chouliaras, eGov Lab, University of Athens; Dr. Eleni Varvarousi, Political Scientist ; Epameinondas Stylopoulos, Trainee Lawyer, LL. M. European Law Students' Association (ELSA - London Branch)

The workshop focused on the theme of "security" and specifically on the use of ICT as tools for strengthening the relationship between citizen and Government and promoting Governmental efficiency and transparency.

Mr Papadopoulos in his presentation entitled "*A Contribution to Security: The misfit to technology of Government regulation in Greece on Spam*" stressed that government regulation in Greece on spam indicates a misfit to technology related to the issue of unsolicited commercial communication. While Greece has enacted regulation that considers EC Directives to cope with the problem of spam, said government regulation is not enough to protect consumers effectively.

Mr Chouliaras in his presentation entitled "*From e-government to e-governance; a systemic approach*" suggested ways to develop successful e-government projects and analysed the need to clearly show benefits realization for both administration and citizens. An e-government project should not be seen as yet another IT project. It is only with a uniform and holistic approach that we will eventually lead in to the required administrative reform and improvement.

Dr Eleni Varvarousi in her presentation entitled "*E-Government and Transparency*" stressed that e-government is fundamentally about visibility, accessibility and extensibility, and these are the core ingredients for transparency in government. However, e-government is just a tool, and transparency depends as much on how that tool is used as it does upon its mere existence. The development of e-government is only the most recent stage of modernizing government. The majority of countries are not using the full potential of e-government online. Transactional services are still in their infancy with the majority of transactional services being offered through either integrated portals or national websites. The necessity of coordination and cooperation is widely demanded and depends on the administrative structures. Furthermore, e-participation limits itself to assessing the G2C aspect of participation. Most of the governments describe the target of ICT use and tend to neglect the questions of how the still-fragmented public administration could get there.

Mr Stylopoulos presented his idea to develop an on-line simulation of the United Nations conferences (E-MUN program). The proposal concerns "on-line "discussions", which will be governed by the same rules as those of the United Nations conferences. The participants, via their computers, will be given the chance to represent a country by delivering small virtual "speeches" and by voting for or against other delegates' proposals. The aim of the E-MUN program is dual and its elements are quite interactive: on the one hand, it aims at enabling every day people from all over the world to get acquainted with the instruments and the procedures of the United Nations; on the other hand, it tries to provide the United Nations with actual knowledge on the way that people think about global problems and needs, thereby enabling the UN for the first time to "hear" the thoughts of those people.

The presentations were followed by dialogue on the topic. The main conclusion was that ICTs offer an effective governance tool for creating transparency, downsizing operations, reducing governmental corruption and strengthening the citizen-government interface. However it is important to ensure integration with traditional

'offline' tools providing access to information, consultation and public participation in policy-making, so as to reap the greatest benefit from ICT. Engaging citizens online raises legitimate expectations that the public input will be used to inform policy-making. Governments and / or representatives from local authorities and the public sector need to adapt their structures and processes to ensure that the results of online consultations are analyzed, disseminated and used. Additionally, the active promotion of online consultation through traditional mediums is essential (i.e. through leaflets, stickers, banners etc) to draw the attention of a wider and more representative audience to the existence of such services.

## New Technical and Policy Challenges in DNS Root Zone Management

*Organizers: Internet Governance Project, Third World Network*

*Panelists: Thierry Moreau, Connotech, Canada, Riaz Tayob, Third World Network, South Africa, Marilyn Cade, Consultant, USA, Brian Cote, VeriSign, USA, Frederico Neves, Director of Services and Technology, Registro.br, Brasil, Lars-Johan Liman, Autonomica.se (root server operator), Sweden*

*Moderator: Milton Mueller, Syracuse University School of Information Studies and IGP*

The panelists and audience vigorously aired conflicting views on the political, economic and technical issues raised by management of the DNS root zone file. The panelists and audience all seemed to agree that this topic was "the elephant in the room" and that it was time to discuss it openly. There was agreement that the session succeeded in reducing the size of the elephant, but some felt that the issue of DNSSEC keys (see below) may added a new elephant.

On the issue of unilateral control by the U.S. government, some felt that the situation was tolerable as long as the arrangements are stable and the root server operators have one clear authoritative source for the root zone file. They also mentioned the risk of losing coordination in a move to a new arrangement, stressing the need for caution. Those willing to tolerate the status quo did acknowledge, however, the possibility of an arbitrary unilateral action that could strain or break down global coordination. The discussion explored the potential benefits and dangers of a move to multi-lateral or internationalized root zone file management. One panelist offered a detailed proposal to internationalize root oversight and argued that it would remove a huge distraction from the ICANN regime and improve stability. The proposal was divided into 4 parts and covered:

1. Articulation of the limited purpose of governmental oversight and identification of categories of root zone file changes that pose no stability or security threats and can be automated;
2. creation of a multi-lateral governmental advisory committee within the ICANN regime to review root zone file changes;
3. calling up the U.S. and other governments to respect the concept of private sector leadership;
4. making ICANN more transparent and accountable.

Only section 2 of this proposal created major controversies. A panelist argued that whatever new arrangements are adopted must give excluded developing countries a voice in the regime; others complained that section 2 would bring destructive intergovernmental conflict into a domain that should be governed by commercial and technical criteria. A panelist noted progress in ICANN's ccNSO toward automation of routine changes in the root zone file. DNSSEC is a new IETF standard that uses public-

key cryptographic signatures to ensure the integrity and authenticity of DNS data. A key policy issue with DNSSEC is whether or not the root zone file is signed. The decision to sign or not (and the operational processes and security policies chosen) shifts the burden of adoption among the various stakeholders. It is possible to implement DNSSEC without signing the root, but this creates "islands of trust" in specific TLDs and poses key management and rollover problems for those implementing DNSSEC at levels lower than the root, including registries, who lack strong economic incentives to adopt it on their own. A more fundamental discussion concerned the possibility of alternative roots or coordination configurations that do not rely on a single centralized point at the top of a hierarchy. Most business and technical stakeholders expressed their strong support for the current approach (a single, centralized root); a panelist viewed alternative roots as legitimate political response to the problem of unilateral U.S. control; a member of the audience mentioned coordination mechanisms in the telephone industry that do not require a single operationalized root.

## Privacy Workshops I and II

*Organizers: Gus Hosein, Information Systems Group, The London School of Economics and Political Science; Ralf Bendrath, University of Bremen and WSIS CS Privacy and Security Working Group*

*Panelists: Workshop 1 - Jerry Fishenden, Microsoft UK; Christian Möller, Office of the OSCE Representative on Freedom of the Media; Stephanie Perrin, Office of the Privacy Commissioner of Canada ; Jan Schallaböck, PRIME-Project and Independent Centre for Privacy Protection, Kiel ; Mary C. Rundle, Net Dialogue of Harvard's Berkman Center and Stanford's Center for Internet and Society*

*Panelists - Workshop 2 - Cristos Velasco, North American Consumer Project on Electronic Commerce; Michael Silber, Internet Service Providers' Association of South Africa ; David W. Maher, Public Interest Registry; Zoi Talidou, Hellenic Data Protection Authority; Anriette Esterhuysen, The Association for Progressive Communication*

The privacy aspects of digital identity management infrastructures and the link between privacy and development were identified as important emerging issues. Identity management is currently being developed and introduced as another "layer" of the internet, but without much public participation. Issues to be cleared are the compliance with existing privacy regulation, ways to make data handling policies more understandable to the users, the handling of identifying data on the back-end (after it has been transmitted to an online service), and the need to ensure the possibility for anonymous internet use, which is a prerequisite for free speech. Technical standards are an important means of governance here, and have to include the perspectives of privacy protection in a more systematic way.

Developing countries and regions will be affected by privacy regulation, as more and more of them are currently introducing their own legislation. Here, external constraints such as the EU data protection regime or trade agreements, as well as the lack of capacity among developing countries' lawmakers may have an impact that should be addressed. Also, people in developing countries tend to use technology in a different way (e.g. connecting in cybercafés much more than through their own computers), therefore their needs for privacy protection are different. Global technical as well as legal standards have to better include the perspectives of developing countries.

## The Internet Bill of Rights

*Organizers: Government of Italy, Ministry of Reform and Innovation in the Public Administration; IP Justice; Società Internet (ISOC Italy); Centre for Technology and Society of Getulio Vargas Foundation School of Law*

*Panelists: Mr. Fiorello Cortiana, Province of Milan, Green Party, Italy; Ms. Robin Gross, IP Justice Executive Director and Attorney, United States; Mr. Jose Murilo Junior, Ministry of Culture, Brazil; Prof. Stefano Rodotà, Former Head of the Council of European Data Protection Agencies, Italy*

*Moderator: Mr. Vittorio Bertola, Società Internet and ICANN At Large, Italy*

The panel introduced the concept of an “Internet Bill of Rights”, a globally agreed document which would state rights and duties of the individual users of the Internet. It was noted that the theme of rights and duties underpinned most panels and workshops of this IGF, and also that many efforts were made in the past ten years, by various stakeholders, to draft similar charters. The issue under consideration by the workshop was then, how do we bring all these stakeholders and efforts together, and draft one single charter that can be broadly supported and adopted? And would such an effort be useful?

After the brief introduction, most of the workshop was devoted to a lively, open discussion from the floor (the room was filled up, often with people standing in the back) and with the panelists. There was general agreement that such a document would be very useful to advance the coordinated and coherent resolution of many of the open issues in the field of Internet Governance, and to build common and predictable ground for the stable and orderly growth of the Internet and of the overlying global information society. Such a document should not reinvent anything or reopen past discussions, but build on the existing international agreements to provide guidelines for the interpretation and adaptation of traditional rights and duties to the Internet, extending and specifying them whenever necessary. Such document would necessarily be born through a broad and inclusive collaboration of all stakeholders.

## Towards a Multilingual Global Internet: Avoiding the Risk of Fragmentation

*Organizers: United Nations Educational, Scientific and Cultural Organization (UNESCO), Internet Corporation for Assigned Names and Numbers (ICANN), National Telecommunication Regulatory Authority of Egypt (NTRA).*

*Panelists: Elizabeth Longworth, Executive Director, Office of the Director General, UNESCO; Tarek Kamel Minister of Communication and Information, Egypt; Vincent Cerf, Chairman, ICANN; Robert Kahn, CEO, Corporation for National Research Initiatives; Adama Samassékou, Executive Secretary, African Academy of Languages and Chairman, World Network for Linguistic Diversity; Augusto César Gadelha Vieira, Chairman, Brazilian Internet Steering Committee; Ayman El-Sherbiny, United Nations Economic and Social Commission for Asia, UN ESCWA; Cary Karp, Director, Internet Strategy and Technology, Swedish Museum of Natural History; Louis Pouzin, EUROLINC and Native Language Internet Consortium; John Paolillo, Indiana University; Sheldon Lee, CNNIC, co-chair of IETF Email Address Internationalization working group; Ram Mohan, Vice-President, Business Operation, Afilias Limited & Member of IDN-PAC; Pankaj Agrawala, Joint Secretary, Department of IT Government of India & Chair of the IDN working group for the GAC & Member of IDN-PAC*

The workshop provided the framework for dialogue on the multiple aspects linked to the development of a multilingual cyberspace and on solutions for avoiding the fragmentation of the Internet. Speakers from governments and the private and academic sectors participated in the discussion on how to create a truly multilingual Internet both from the content and the technical point of views.. The workshop was structured in four sessions.

Opening the workshop, Elizabeth Longworth, Executive Director, Office of the Director-General, UNESCO, underlined the importance and the richness of languages and both peoples’ and individuals’ identities. The great success of the Internet has created a strong pressure for all languages to be represented. Therefore, all stakeholders need to work together to avoid that isolated language islands develop in cyberspace.

Egyptian Minister Tarek Kamel pointed out that language barriers are major obstacles to a truly global Internet up-take and called for multilingual e-content initiatives. For example, Arabic language e-content could better reflect the contribution that the Arabic culture has made to the global community.

Vinton Cerf, ICANN Chairman, highlighted the technical challenges underlying the development of a multilingual Internet and IDNs. It is vital to include non-Latin scripts in the domain name system. The technical community has made considerable progress in integrating non-Latin scripts in the DNS system.

The issue of representation and metadata and the importance of an open architecture that would enable linguistic diversity were addressed by Bob Kahn who introduced "Handle", a system for describing digital objects and establishing a transferable digital object architecture.

The need to create conditions for providing e-content in all languages was pointed out by the panelists of the first session presenting perspectives from the five regions of the world. For Adama Samassékou, ACALAN, the African continent needs to take up the challenge of languages disappearing in a rapid pace and the "World Network for Language Diversity" could be a good instrument for international cooperation to ensure a greater presence of contents and a stronger language diversity.. He also underscored the importance of interoperability for Africa. Advances in solving problems related to the Arabic domain main system were presented by Ayman El Sherbiny from ESCWA describing an interesting involvement of ESCWA in providing a frame for addressing the issues in a coordinated and effective manner. He also suggested establishing a global fund for IDNs. An experience on the use of browsers in Asia was presented by Kangsik Cheon , Native Language Internet Consortium (NLIC), South Korea, who also referred to a set of statistics on languages used in the region and the use of browsers in local languages. According to Augusto Gadelha, Chairman, Brazilian Internet Steering Committee, technology is not anymore a hindrance for multilingualism on the Internet in Latin-America and the Caribbean. In particular, UNICODE standards provide a basic platform for script encoding. The European situation with its many languages and different scripts was described by Cary Karp as a microcosm reflecting many of the issues facing the global community worldwide. He presented the approach of the Swedish government to deal with complex socio-linguistic realities that required complex technical solutions during recent elections..

In the second session on "Multilingual content", solutions for providing content in local languages were discussed by Louis Pouzin. John Paolillo presented a UNESCO research study with statistics and problems related to the complex issue of measuring language diversity also stressing 'linguistic biases' when measuring languages on the Internet..

In the third session on "Multilingual applications" several developments were presented, including a live demonstration of "iEmail" by Sheldon Lee, an e-mail system that is interoperable with the global system. Solutions for IDN implementation in Firefox were demonstrated by Neil Harris.

The last session "Internationalised Domain Names" focused on the Arabic Domain Names pilot project by Christine Arida from Egypt; the challenges facing Indian IDNs in a country with 22 official languages, representable in 11 scripts, by Pankaj Agrawala; the outcome of the first IDN test completed in October 2006 (End-user software showed difference in conversion of Unicode to Punycode) conducted at the .museum IDN lab, in association with Autonomica, by Ram Mohan.

All speakers stressed that users need consistency of applications; domain names must remain unique and unambiguous; the interoperability of the TLD system has to be maintained, "future-proof" solutions must be assured, and multistakeholder initiatives should be promoted.

Claudio Menezes and Axel Plathe, UNESCO, and Paul Twomey, ICANN, drew the meeting to a close by underlining the importance of continuing the dialogue on these matters as well as the need to increase the Internet richness and heritage through using IDNs.

## Workshop reports from Rio de Janeiro

### Content Regulation and the Duty of States to Protect Fundamental Rights

*Organizers: APC Women's Networking Support Programme (APC WNSP): Civil Society; EuroISPA: Private, the pan-European association of the Internet services providers; The Council of Europe: Intergovernmental*

*Panellists: Namita Malhotra, the Alternative Law Forum, India; Matthias Traimer, the Council of Europe, Austria; Malcolm Hutty, the London Internet Exchange, United Kingdom; Adriana Veloso, Cultura Digital/G2G, Brasil;*

*Chair: Natasha Primo, APC Women's Networking Support Programme, South Africa*

What constitutes harmful content?

- We all agree upon the need for regulation on child pornography. However, we also agree that the discussion on content regulation has been oversimplified and has so far excluded various kinds of content and practices such as harassment and erotization of violence of women in cyber space, or torture of detainees and prisoners of war.
- It is not only a question of what is harmful content but what constitutes harm, current regulation practices that seek to prevent exposure to pornographic or other harmful content do not necessarily lead to lesser harm but inadvertently deny/limit freedom of expression or access to vital information on sexuality or health (AIDS or safe sex).

Roles: Who should be part of defining what is harmful content, and what are the current practices?

- Governments: State intervention does not need to mean top-down regulatory regimes enforced by law, but an active state which is responding to pressing social need of 'vulnerable groups'. It is not role of state to define ethical standards and morality but it can play its role in education (to teach children and public what is freedom of expression in terms of liberties but also responsibilities) and protection of human rights of end-users.
- Private sector (ISPs, Software developers): Giving the regulatory role to corporate entities is even more problematic than states having such power. There is no procedural or judicial mechanism to challenge their decisions over spaces for free speech.
- End-users: End-users have a multitude of concerns related to content regulation including freedom of expression, access to information and disparate values and cultural standards. However the debates around harmful content and its regulations lacks participation of end-users living in different context, especially suppressed voices of other than those of the economic North, and of women. There also seems to be a lack of variety of perspectives, including feminist.

How to move forward?

- Considering the complexity of the issue and concerns, it is important that the debates around harmful content involves the diverse voices of end-users in their different political, social and civil contexts. Regulations must evolve more organically and must take account of the values and socio-cultural practices

of end-users. This could include forms of self-regulation within communities or individuals, or peer-to-peer monitoring practices.

- We also recommend an exploration of co-regulation practices where states may provide a public framework, and consumers/end users decide the values that will guide their practices and what sanctions will apply where common values are transgressed .
- It is important to recognize there is no easy solution, and that the effectiveness of content regulation mechanisms and tools must be assessed from the point of transparency as well as accountability of the different actors working around content regulation.

## Broadening the Domain Name Space: Top Level Domains for Cities, Regions and Continents

*Organizers: Medienstadt Leipzig e.V, ECO (the German Internet Business Association), EURALO and Eurocities*

*Panellists: Werner Staub for .cat .ga, .cym, .eus and .bzh; Giovanni Seppiae for.eu; Ching Chiao for .asia; Thomas Loewenhaupt for .nyc; Sebastian Bachelet for .paris; Dirk Kirschenowski for .berlin; Nii Quanor for .africa; Tony Harris for .lac; Olga Cavali for .mercusor; Anette Muehlberg for the Internet Users; Dean Ceulic for the business community*

*Moderator: Wolfgang Kleinwaechter, University of Aarhus and Board Member of Medienstadt Leipzig e.v.*

In the discussion the panellists underlined that GEO-TLDs will offer new opportunities both for individual as well as for institutional Internet Users to get a geographically based identity in the Web. Critical points were raised with regard to risks of misuse of public and well know geographical names of cities and regions by unauthorized people without any linkage to the relevant public administrations. Discussants referred to the GAC gTLD and ccTLD principles where the governments have made clear that the allocation of geographical names as TLDs is possible but needs the acceptance of the relevant local or regional public authority. Project presenters stresses that such a mechanism can be included in the ICANN call and the following bidding process which would guarantee an involvement of relevant authorities into the process. Conflicts could be settled, on a case by case basis, be the planned dispute resolution mechanism. The argument that GEO-TLDs would lead to more consumer confusion was rejected. In contrary, new TLDs would give consumers more choices.

As a summary the following four messages can be sent out from this workshop to the global Internet community:

- There is a growing wave of projects for new TLDs which have geographical element in it. And this is seen as a new opportunity for global cultural branding and for the stimulation of new local business and for giving the consumer more choices.
- GeoTLDs would enrich the domain name system, would introduce a new elements in the DNS and would give users more choice.
- ICANN should speed up its procedures and to open the door for the accreditation of new gTLDs as soon as possible and to include GeoTLDs into this process.
- Public Policy interests, raised by relevant public institutions, have to be taken into account adequately but should not prevent to move forward

## DNSSEC: Securing a Critical Internet Resource

*Organizers: Internet Governance Project, CGI.br, and EuroISPA*

*Panelists: Lesley Cowley, Chief Executive, Nominet UK, Council Member of the Country-Code Names Supporting Organisation (ccNSO); Tricia Drakes, Information Technologist, Chair ITC Information Security Panel, former ICANN Board member; Sabine Dolderer, CEO, DENIC eG; Malcolm Hutty, Representative Member, RIPE (Réseaux IP Européens); Carlos Afonso, CGI.br (O Comitê Gestor da Internet no Brasil); David Conrad, Vice President of Research and IANA (Internet Assigned Numbers Authority) Strategy, ICANN*

This workshop drew approximately 80-90 attendees from government, civil society, the private sector and technical communities. While the multi-stakeholder panel brought a diversity of opinions regarding DNS Security Extensions (DNSSEC), they agreed that improving the security of the Internet's infrastructure is an important activity which should be pursued.

In general, there are two camps concerning the deployment of DNSSEC, which is a technical standard that requires coordination among many actors to be successfully deployed on a wide-scale basis. One side is ready to proceed with deployment, particularly the hurdle of creating a "trust anchor" key and digitally signing the root zone file. The other is not ready to proceed, believing that the successful deployment of DNSSEC is subject to many open technical and governance questions.

One central stakeholder is top level domain (TLD) registries. For TLD registries that wish to deploy DNSSEC, some current operating procedures will need to be redesigned, and some new procedures will need to be created with regard to key management and rollover. While some registries (e.g., .se, .uk, .br) are actively pursuing making these changes, estimates of difficulty and cost vary by registry. IANA, which is responsible for several TLD zones critical to the Internet's functioning, has made substantial progress and successfully deployed DNSSEC in a test bed environment.

The panelist from Nominet conveyed points made in a recently released position paper. Nominet believes that a single entity, IANA, should be responsible for root signing activities, and that any governance questions should be discussed as part of the current dialogue towards "enhanced cooperation." Another panelist, speaking as a representative member of RIPE, supports expediting the root signing process, and argued that DNSSEC does not fundamentally change the current root management process or actor relationships. He also expressed concern that the deployment of DNSSEC at the root should not be held up because of political issues which can be resolved ex post.

However, the panelist from .de, the world's largest ccTLD, noted that deploying DNSSEC at the Internet's root entails making a decision about whether to dedicate trust to one or multiple entities. To them, it is not entirely clear in the former case what power or implications are associated with a single entity holding that position. Neither is it clear that there is demand for DNSSEC from their customers. The panelist representing CGI.br also expressed that a better understanding is needed of the possible vulnerabilities associated with a single government having authority over the root zone file, especially given that .br is currently signing a zone for use by its financial institutions.

Many interesting questions and comments were raised during the panel-audience discussion.

The panelist representing RIPE argued that deploying DNSSEC at the root would not prevent DNS resolver operators from using another root if they chose too. However, an

audience member from the academic community pointed out that it is well-known network effects and associated costs of making that switch would make such an action improbable. Another issue raised was that it is unclear exactly how the deployment of DNSSEC at the root zone will affect root server operators, and particularly their ability to provide an informal check against activities that occur at the root zone (e.g., their ability to roll back to previously generated root zone file).

Audience members noted other technical solutions to signing the root zone which would create alternative, multiple trust anchors. However, it was noted that one such option, DLV, is not standardized in the IETF. A manager from .se, which has deployed DNSSEC in its zone, noted that the Internet Service Providers (ISPs) with whom they've spoken are not willing to configure and manage more than 2-3 trust anchors in their resolver software. There was some debate about concentrating root zone editing, trust anchor key creation, and root zone signing with any single entity. A longtime participant in the standard's development expressed concern, and instead suggested that these roles be distributed similar to auditing-company relationships.

## Fulfilling the Mandate of the IGF

*Organizers: The Internet Governance Caucus, The Government of Jamaica, The Global Telecentre Alliance*

*Panelists: Karen Banks, Network Development Manager for the Association for Progressive Communications; Ayesha Hassan, Senior Policy Manager, E-Business, IT and Telecoms and Executive in charge of ICT policy, the International Chamber of Commerce; Everton Frask Lucero, Head of the Science and Technology Division of the Ministry of Foreign Affairs, Government of Brazil; Matthew Shears, Director of Public Policy, the Internet Society; Parminder Jeet Singh, Executive Director, IT for Change; Nicholas Thorne, United Kingdom's Ambassador and Permanent Representative to the UN and other International Organisations, Geneva*

*Moderator: William J. Drake, Director, Project on the Information Revolution and Global Governance, Program for the Study of International Organization(s), Graduate Institute for International and Development Studies, Geneva*

The Tunis Agenda for the Information Society gave the IGF a mandate to perform twelve important functions. While the IGF has succeeded in performing some of these, others have proven to be more difficult to carry out within the confines of annual meetings. Accordingly, the civil society Internet Governance Caucus (IGC) organized this workshop to foster multistakeholder dialogue on ways to fulfill the mandate in light of two years of experience. Its objectives were to review the thinking behind the mandate's formulation; identify any mandated functions that would be particularly value-adding but are not being performed sufficiently in the IGF or elsewhere; suggest operationally practical steps that the IGF community could pursue in order to facilitate their performance; and assess related trends and challenges in the IGF.

The workshop began with some discussion of the need for transparent and inclusive debate on the mandate, especially given the stakeholder expectations that had been raised by the Tunis Agenda and the WSIS preparatory process. It was suggested that because some of the specific functions agreed to in Tunis cannot easily be performed solely by annual main sessions, it could make sense to decentralize the effort and pursue them in workshops, dynamic coalitions, and perhaps even working groups. Were this approach to be followed, there would be a need for a transmission path through which ideas and information could percolate from the bottom up and be considered by the broader IGF community, e.g. allowing rapporteurs from these collaborations to participate in main session panels in order to present their key findings and outcomes.

In broad terms, one set of panelists expressed satisfaction with what has been achieved to date but wanted the IGF to expand and deepen its work on the mandated functions, while another set of panelists expressed caution about adopting overly constraining

interpretations of the mandate and overly ambitious objectives for its implementation. For example, one panelist stressed that the Tunis Agenda mandate means what it says and embodies a negotiated consensus that cannot be set aside. Nevertheless, he argued, at least six of the mandated functions---such as promoting the WSIS principles and making non-binding recommendations---are not being performed, and there are issues with the preparatory process for meetings that affect the IGF's ability to redress this situation. Two other panelists expressed related views, averring that the IGF needs the institutional mechanisms and resources to perform the functions and help build consensus on key developmental objectives like promoting access and the Internet's public goods character. In contrast, another panelist cautioned against a formulaic "check the box" evaluation of the IGF's performance, particularly absent any clear criteria for what constitutes success in this setting. Insofar as some stakeholders are already tackling the issues, it would be better to enhance their ability to share information on their efforts than to expect the IGF per se to take on demanding responsibilities. In a similar vein, a panelist maintained that it was too early to judge the IGF according to a checklist of functions because participants are still feeling their way with the multistakeholder process, learning to accept different perspectives, and building trust. A final panelist concurred, citing Rio's nonconfrontational main session on critical Internet resources as evidence of the progress toward mutual understanding that can be achieved with patience and multistakeholder dialogue. Nurturing and building upon that progress will require avoiding intergovernmental-style negotiations of recommendations or other outcome texts.

The subsequent discussion with the large audience in attendance was robust and interactive. Audience members made a variety of interventions on such points as: the adequacy, or inadequacy, of current IGF efforts to implement the mandate; the need to view the mandate's functions in relation to each IGF activity, rather than as segmented streams of new activity, and to establish working methods on this basis; governmental participants' desire for recommendations or other conference conclusions that they can take back to their national capitals and use in making the case for continuing participation; the apparent lack of consensus on the mandate's vision within the current MAG; the importance of engaging a broader range of stakeholders and organizations in the IGF; the insufficiency of uncoordinated stakeholder initiatives as an alternative to concerted mandate implementation within the IGF; and the needs to replace the MAG with a tripartite bureau structure, adopt nonbinding recommendations, set new substantive foci for the main sessions, and establish working groups with competence for specific and pressing issues that cannot be tackled effectively by panel discussions of whatever kind. Despite the diversity of opinions expressed on these and related matters, one point did appear to garner rough consensus and was subsequently reported by the moderator from the floor to the main session on Taking Stock and the Way Forward [www.intgovforum.org/Rio\\_Meeting/IGF2-TakingStock-15NOV07.txt](http://www.intgovforum.org/Rio_Meeting/IGF2-TakingStock-15NOV07.txt). This was the above-mentioned notion that rapporteurs for workshops and coalitions on mandate-related issues should be included in appropriate main session panels in order to report on their activities.

## Governance Frameworks for Critical Internet Resources

*Organizers: IT for Change, Association for Progressive Communications (APC), Information for the Third Sector (RITS), Global Internet Policy Initiative (GIPI), Internet Society – Bulgaria (ISOC-Bul), Center for Democracy & Technology (CDT) Alfa-Redi, Hivos, Third World Institute, Public Affairs Centre, Agencia Latinoamericana de Información - ALAI País, ISIS International, Manila, Gloria Bonder - General Coordinator of the Regional UNESCO Chair Women, Science and Technology in Latin America, Reynolds Technology Pty Ltd, Internet Mark 2 Project*

*Panellists: Carlos Afonso, Brazilian Internet Steering Committee (CGIbr); Willie Currie, Communications and Information Policy Programme Manager of the Association for Progressive Communications (APC); Jim Dempsey,*

*Policy Director at the Center for Democracy and Technology; Jim Dempsey, Policy Director at the Center for Democracy and Technology; Gurumurthy Kasinathan, founding Director of IT for Change; Fernando Maresca - National Office of Information Technology – Argentina; Rajnesh D. Singh, Chief Operating Officer of Patara Communications & Electronics Limited, Suva, Fiji Islands*

*Moderator: David Satola, Senior Counsel in the World Bank Legal Department*

The purpose of this workshop was to inform the Internet governance debate by outlining the existing frameworks and discuss possible alternatives concerning: (1) what resources are critical to the growth of the Internet, and its appropriation by all people and groups, including the disadvantaged; (2) a what level, by what means, Critical Internet resources (CIRs) are governed, and should be governed; and (3) the normative basis of different approaches to governance of CIRs. Private commercial law, voluntary standards, community-based norms and practices, and national, regional and international law all have a role, and governance is exercised by private parties in contractual arrangements, by local/national regulators, by regional and international governmental institutions, by community of Internet users and by nongovernmental voluntary standards bodies of national, regional and international purview.

Dynamic factors fundamentally influence governance structures and institutions. As such, the process and evolution of governance models will need to take account of these dynamic factors. The panel mapped the current landscape of Internet governance mechanisms and institutions, and explored new approaches to address these dynamic influences, including "commons-based" and "public interest-based" frameworks, providing a foundation for future work in this area.

Panelists addressed the following themes and issues in the Workshop.

Mr Dempsey presented an overview description of "governance" and "critical Internet resources" in the context of a vision of the Internet as a widely available, affordable, open, trusted and secure medium. While he argued for a broad definition of CIR, he stressed that the definition matters less than the understanding that different institutions and different processes - some national, some global, some governmental, some non-governmental - have so far effectively "governed" different aspects of CIR. He stressed the responsibility of national governments for overcoming many of the barriers to Internet development. Finally, he warned against disproportionate focus on the crucial but comparatively small aspect of CIR overseen by the Internet Corporation for Assigned Names and Numbers (ICANN).

Mr. Singh highlighted issues of CIR governance from the perspective of the Pacific Islands with an emphasis on some core and wider related CIRs, presenting a list of access-related issues which reflect CIRs in the wider context, and the underlying weakness in policy development to effect governance frameworks.

Mr. Barrio noted that CIR is a concept that has no clear definition and no clear boundaries, but there is certain agreement that includes things as energy, funding, IP numbers and the domain names systems between a longer list of CIR. The DNS and its relation with ICANN can be used to exemplify the legal issues underlying the current political debate and, arguably, show that through a proper legal architecture the contentious issues may be overcome. ICANN relation with the global DNS shows that a conundrum of local (Californian), domestic (US) and conflict of laws issues, where public and private law also interlink, only creates uncertainty and discontent and that proper action to give ICANN legitimacy through proper authority delegation and a clear legislative mandate needs to be sought.

Mr. Gurumurthy focused on commons and public interest-based frameworks, including

the nature of governance of CIRs, and the need to assert and foster the complement of the 'Public-ness' in the governance discourse. The predominance of 'North' and the insistence of a 'technical' / 'neutral' approach to governance results in disproportionate and differential cost-benefits to certain countries and certain players. In that regard, he proposed the creation of a GTLD that will specifically cater to the need for a digital public domain – the Global Public Domain or the .gpd GTLD for global public goods content.

Mr. Afonso noted that the issue of CIR started during the WSIS process, then under the WGIG, and it was only included in this second IGF. The main CIR issue is the relationship between the U.S. government and ICANN, particularly “veto” rights over ICANN’s activities. Alternatives to the present arrangements could focus on the “internationalization” of ICANN, based on principles of transparency and independence, and will have to take account of the dynamics, particularly the demographic evolution, of Internet users.

Mr. Mueller noted that "Critical Internet Resources" clearly refers to global governance of internet identifier resources. He also returned to the issue of a commons-based approach to governance, noting that concepts of commons can co-exist with private property. Issues of "commons" and private property are often treated as a dichotomy. But in reality, private and public property can interact in a mutually supportive, productive way. The open standards that form a part of CIR, for example, work with privately-owned network infrastructure over which communications flow. Any attempt to do away completely with one or the other can be disastrous. In order to negotiate this problem, we need to understand property rights theory and transaction costs theory.

The IGP’s proposal to make network neutrality a global principle is an attempt to find a creative combination of commons and private property. A neutral carrier allows new and innovative private services to develop. Mueller noted that a neutral network would have a much more profound effect on internet governance than the proposal for a new "global public domain" top level domain, because any domain now can and does carry open content, such as Wikipedia.org. It is unlikely that this dynamic and robust environment needs to limit itself to one domain.

Finally, noting that events in the history of the evolution of the Internet have been influenced by existing great powers, Mr. Currie, echoing Mr. Afonso’s intervention, drew on Daniel Drezner’s work on “great powers” to postulate that as new “great powers” emerged (such as India and China) governance processes and structures would likely be influenced by them.

## IGF Workshop: One size doesn’t fit all

*Organizers: CENTR, APTLD, LACTLD, AFLTD*

- Presentations on how the Domain Name Systems works, and the IANA function, including the role of the United States Government
- Expectations + observation from different stakeholders (gov, ccTLDs, ISOC)
- Case Study E-IANA, collaboration

Themes emerged (customers + supplier)

- How relationships have improved and evolved as the industry is maturing (it’s getting better)

- Respect for local determination/decisions ie ccTLDs + role of local stakeholders including government (redelegation, change of ccTLD based on objective criteria)
- Many forms of interaction between ccTLDs, ICANN/IANA eg regional organisations (CENTR, APTLD, LACTLD, AFTLD), ccNSO, ISOC) + importance of participation.
- Capacity building
  - People informed about regional organisations
  - ISOC development/training for ccTLDs
  - Grants + sponsorship available to aid participation in meetings
- Effect of automation (eIANA) in strengthening respect for local decisions (eg through developing authentication methods as the foundation for trusted transactions)

## IPv4 to IPv6: Challenges and Opportunities

*Organisers: Japan Network Information Center (JPNIC), Number Resource Organization (NRO), Internet Society (ISOC), Internet Association Japan (IA Japan), Japan Internet Service Providers Association (JAIPA), Institute for InfoSociomics, Kumon Center, Tama University, Center for Global Communications, International University of Japan (GLOCOM), Global Internet Policy Initiative (GIPI)*

*Panellists: Paul Wilson, Director General of APNIC; Makiko Yamada, Director of International Policy Division, Ministry of Communications and Internal Affairs of Japan ; Jonne Soininen, Head of Internet Affairs, Nokia Siemens Networks; Naomasa Maruyama, Trustee of JPNIC ; Izumi Aizu, Deputy Director, Institute for HyperNetwork Society; Adiel Akplogan, Chief Executive Officer, AfriNIC; Patrik Fältström, Cisco Systems; Leslie Daigle, Chief Internet Technology Officer, Internet Society; William Manning, research staff, Information Sciences Institute, USC; Jordi Palet, CEO and CTO, Consulintel*

Paul Wilson gave an overview of the current situation, noting that current forecasts put the date of IPv4 exhaustion at around 2010 or 2011. He explained the benefits of moving to IPv6. It was noted that IPv4 and IPv6 would co-exist for many years, with IPv4 remaining in use for perhaps another 20 or 30 years. The current challenge is to make the transition to IPv6, but the cost of deploying IPv6 is currently higher than the cost of remaining with IPv4. It was recognised that stakeholders need to work together to encourage adoption of IPv6.

Makiko Yamada presented the Japanese government's work on encouraging transition to IPv6, reporting on a study group created by the government to analyze the issue. The study group is due to release a report in March 2008 on which the government will take action.

Jonne Soininen explained that from the business community's view, the bad news was that there is no clear business case yet. However, the good news is that there is already interest within the business community to begin preparing for the transition.

Naomasa Maruyama echoed the business community's view, explaining that a JPNIC survey of ISPs showed that while more than 70% of the ISPs in Japan are aware of the projected depletion date for IPv4, only 30% are starting to prepare for a transition to IPv6. ISPs are concerned about what may happen if they do not adopt IPv6: if there are no more addresses, then many new businesses or existing business may suffer. The challenge is to address the gap between the 70% of those aware of the problem and the 30% planning to address the problem.

Izumi Aizu spoke from the view of users of the Internet. He called for governments to make government web sites accessible via IPv6 as well as IPv4 to help encourage the use and awareness of IPv6. Mr Aizu reported that the ICANN At-Large Advisory Committee (ALAC) issued a statement at the recent Los Angeles ICANN meeting supporting open and inclusive policy development for both IPv4 and IPv6, and noting that ALAC was willing to participate in the process.

Adiel Akplogan reported that there was very high interest in IPv6 in Africa but that there is need for support, training and awareness campaigns. He noted that this mirrored the global situation regarding IPv6 adoption.

Patrik Falstrom explained some of technical requirements needed to support IPv4 and IPv6. He noted that it was very important to ensure the new users in Africa and other developing regions are able to access any and all parts of the Internet and not be relegated to islands of IPv6. Achieving this requires significant technical, business and policy support.

Leslie Daigle reported on the IETF's work and explained that the technical community is ready to provide technical support during the transition and is willing to work with other stakeholders to ensure better outcomes during the transition.

William Manning reported on the relationship between DNS and the two IP versions, noting that all DNS name servers, including root, gTLD and ccTLD servers, should eventually be capable of using both IPv4 and IPv6 using a dual stack to communicate between the two protocols. He noted that IPv6 is not backward compatible with IPv4, which means that extra measures must be taken to make sure IPv4 and IPv6 can communicate. Mr Manning emphasized that there will be no identifiable date by which networks must move from IPv4 to dual stack or native IPv6, so it is the responsibility of all stakeholders to plan and prepare.

Jordi Palet explained that there are a lot of business opportunities that can be gained from deploying IPv6, so the focus should not just be on the potential problems in initially deploying IPv6. After the panellists had spoken, there was some time for discussion from the rest of the workshop attendees. The discussion was very interesting and lively, with agreement that the all stakeholders need to work together, sooner rather than later, to encourage and support the deployment of IPv6 before the predicted date of IPv4 exhaustion.

## Making Accessibility a Reality in Emerging Technologies and the Web

*Organizer: International Telecommunication Union*

*Panellists: Gunnar Hökmark, European Parliament, Clara-Luz Alvarez, Rapporteur ITU-D Q20 SG1, Gunnar Hellström, Omnitro, Cynthia D. Waddell, The Internet Society Disability and Special Needs Chapter, Jorge Plano, The Internet Society Argentina Chapter (ISOC-AR), Steve Rondel, Conversay, Xiaoya Yang, Engineer, Telecommunication Standardization Bureau, ITU*

*Moderator: Ms Clara-Luz Alvarez (Rapporteur Q20, ITU-D SG1)*

The ITU-T Director, Mr. Malcolm Johnson, welcomed and thanked the participants for having joined ITU in this initiative. In his address he emphasized the importance to consider accessibility needs at an early stage in the standardization process. In order to succeed and improve everyone's access to current and future ICT technologies, standards not only have to be developed and approved, but standards have to be implemented by industry into society on a world-wide interoperable basis. ITU is leading the way in terms of international standards to achieve this goal. Indeed, ITU was the

first international standards body to address accessibility in practical terms by passing the first international accessibility standard back in 1991.

The outcome of the workshop highlighted the fact that, although new information and communication technologies have provided substantial benefits to the modern society, there is still a large number of people who cannot enjoy these benefits as older persons and persons with disabilities. Due to lack of accessibility features, they cannot access or use telecommunication and ICT services at all or cannot use them adequately. This is an extremely large problem because the revolution of Internet has meant that society has changed dramatically. It is now common place to encounter words like e-health, e-education, e-trade, e-finance, e-medicine, etc., these are not just words but are important services that are entering into the everyday life of ordinary people. So it is becoming imperative that everyone is able to access these ICT services on the Internet. We cannot allow isolation of a part of the population due to lack of appropriate functionality that prevents persons with disabilities to use ICT resources, to the fullest possible measure.

## Multi-stakeholder Policy Development

*Organizers: Government of France, Ministry of Foreign Affairs, ICC-BASIS, CONGO, APC, Federal Office of Communications (OFCOM) Switzerland*

*Panellists: David Appasamy, Chief Communications Officer Sify Limited; Karen Banks Network Development Manager Association for Progressive Communications (APC); Renate Bloem Conference of NGOs in consultative relationship with the United Nations (CONGO); Valerie d'Costa, Program Manager InfoDev, World Bank; Daniel Dardailier Associate Chair World Wide Web Consortium (W3C); Peter Dengate Thrush, Barrister, Chairman of the Board ICANN; Avri Doria, Adjunct professor Luleå University of Technology (LTU), Sweden; Augusto Cesar Gadelha Vieira, National Secretary Information Technology Policy in the Ministry for Science and Technology of Brazil; Arthur K. Reilly Senior Director Strategic Technology Policy, Cisco Systems; Mogens Schmidt, Director UNESCO Division of Freedom of Expression, Democracy and Peace; Thomas Schneider, Coordinator Information Society issues, Swiss Federal Office of Communications (OFCOM)*

*MODERATOR: Bertrand De La Chapelle, Special Envoy for the Information Society in the French Foreign and European Affairs Ministry*

- 1) The multi-stakeholder approach is most appropriate when actors need to address an issue but cannot do it on their own without the cooperation of others. Open and informal agenda-setting should encourage formulating such issues in terms of a common concern or interest. Workshop participants confirmed that bringing the different actors together very early on is a key success factor. This enables them to identify the technical, economic, social and policy dimensions of the issue before even defining common goals or discussing possible solutions.
- 2) Early stage discussions aim at producing a common understanding of a problem, with different actors eventually "sharing the same vernacular", as one participant put it. The outcome is not necessarily an agreement: it can simply map the respective viewpoints and reveal the different mental frameworks or implicit assumptions that people have. The multi-stakeholder approach is not limited to occasional consultations: repeated interaction is needed to progressively build the necessary trust and respect among actors.
- 3) Relevant stakeholders are different for each issue and participation should not be limited to those who just happen to come to the table: special efforts are needed to identify and engage with actors who have an impact on or are impacted by a given issue. This can include special measures to facilitate their participation and their access to relevant information.
- 4) Multi-stakeholder processes must be somewhat structured. Documenting their

working methods in particular can enhance transparency and accountability and facilitate participation. Various organizations have established charters or process documents for that purpose, sometimes using their own process to elaborate them in a bootstrapping manner. But flexibility is key in that respect. The benefit of a having a trusted convenor that can guarantee the respect of the process and the need to pay attention to future implementation and enforcement was also mentioned.

## Qualifying, Quantifying, and Meeting the Challenges of Internet Access Costs

*Organizers: iGrowthGlobal, Keidanren – Japan Business Federation, World Information Technology and Service Alliance (WITSA), Global Information Infrastructure Commission (GIIC), Packet Clearing House (PCH)*

*Panellists: Mr. Kiyoshi Mori, Japan's Vice-Minister for Policy Coordination (International Affairs); Dr. Olfat Abd El Monsef, Vice President, National Telecommunications Regulatory Authority of Egypt; Mr. Bill Woodcock, founder and research director for PCH; Mr. Nishal Goburdhan, Internet Solutions in South Africa*

*Moderator: Mr. Masanobu Katoch, Corporate Vice-President Fujitsu Limited and Chairman GIIC Working Group on Internet Governance*

The speakers and the workshop participants discussed:

- The importance of increasing access to the Internet, and providing affordable solutions to the vast number of users who have yet to connect to the Internet, as well as the role of public policy and regulation and various approaches, including international, regional and domestic peering and transit agreements as a component of lowering overall connectivity costs;
- The identification of various “best practice” initiatives (e.g., construction of Internet exchange points, capacity building in skills and expertise) that Internet service providers, government officials and other stakeholders have used in local, national and regional communities to boost Internet penetration rates, particularly in Africa and Latin America; and
- how policy making, including regulation and competition can contribute to lowering end-to-end connectivity costs.

Lessons learned:

- Development of local traffic exchanges (IXPs) can provide greater Internet Access and lower connectivity costs.
- The existing regulatory approach in certain countries does not necessarily adequately support the development of IXPs, or encourage the emergence of local ISPs. Additional liberalization is part of the solution in many countries; a flexible legal, policy and regulatory regime is required to allow such services. Often a country must reach across different agencies to create involvement from numerous players to create an effective strategy. In many cases, it may be the freedom from regulatory restrictions which allows new investments.
- How an extensive set of national initiatives in Egypt to provide affordable Internet access and computers to those in need of assistance proved successful with the added benefits of building up ISPs and facilitating e-government goals
- Linkage to the regulatory framework in Egypt and how it has contributed to increased competition and choice for users. We also heard about the role of

the Ministry as a champion to draw resources and participants together. About a 'case study of a success story by a private ISP in South Africa where an initiative calling attention to the need for deregulation and working with the government for reforms produced a healthy environment for ISPs to grow and provide more Internet services.

- Some of the concerns expressed include that regulators and policy makers should avoid creating "islands of local access" by ensuring interconnection of various networks that begin to emerge.
- 'Lessons learned' by Japan's deregulatory efforts to reduce Internet costs to consumers may be helpful as other regulators explore such directions. Finally, the discussion highlighted the fact that access to the information infrastructure and ICT and Internet capabilities is one of the most fundamental measure of a society's ability to grow its economy, enhance its social well-being, and integrate itself with the global economy. All stakeholders must work together in countries so that the right policies are in place to ensure access to the Internet.

## Regulatory Frameworks for Improving Access

*Organizers: International Development Research Center (IDRC/CRDI), Learning Initiative on Reforms for Network Economies (LIRNE.NET), Association for Progressive Communications (APC)*

*Panellists: Edwin San Roman, independent consultant with 15 years experience in Internet applications, Rural Telecommunications and Regulatory issues; Helani Galpaya, Director, Strategic Development at the Learning Initiatives on Reforms for Network Economies; Asia (LIRNEasia); Radhika Lal, Policy Advisor on ICT for Poverty Reduction & MDGs in the Bureau for Policy Development, United Nations Development Programme (UNDP); Ilkka Lakaniemi is Head of Global Political Dialogue and Initiatives at Nokia Siemens Networks; Abi Jagun is Africa ICT Policy Research Coordinator Association for Progressive Communications, Research Fellow at the Department of Management Science, University of Strathclyde, Glasgow.*

*Chair: Willie Currie, Communications and Information Policy Programme Manager, Association for Progressive Communications (APC)*

Issues discussed and recommendations/suggestions mooted during the workshop were classified as follows:

- Enhancing the development of and access to infrastructure
- Enabling policies and financial frameworks
- Advancing the development dimensions of ICT regulation
- Offering technology choice, responding to demand and addressing the challenges/opportunities of convergence

Under enhancing the development of and access to infrastructure a clear message from the workshop was the need to address the reinforced monopolies that exist around access to international infrastructure by local operators; this refers to the phenomenon, prevalent in the majority of developing countries, whereby the incumbent/national operator is the sole provider of basic telecom services that are key to the availability of the Internet and its affordability. The monopoly status occurs because such operators control access to physical infrastructure and/or operate under licensing regimes that are favourable to them but which are prohibitive and inadvertently limit competition. Specifically, workshop participants spoke of the need to open up international and terrestrial backbone infrastructure (e.g. through stronger regulation of backbone infrastructure and shared access/investment).

It was under this topic of discussion that participants voiced an opinion that was to be repeated in other access workshops and during the plenary – that competition works; and that principles of 'open access' should be applied evenly to all areas of the telecom sector. This statement on competition was made with reference to the experience of equipment providers who operate in highly competitive markets and whose performance and efficiencies have benefited from the competitive environment.

The fostering of competition and facilitation of multiple players in telecom markets requires enabling policies and financing frameworks; licensing procedures should be simplified, as should the regulation and cost of interconnection. Furthermore, countries should allow for and promote the use of new technologies/applications – with specific examples being given of the use of VOIP in rural areas.

In relation to rural and underserved areas, workshop participants noted the need for stakeholders to recognise that a "different" approach to regulation may be needed under these circumstances. Specifically, participants challenged the translation of 'traditional urban-centric' legal/regulatory frameworks - which are mostly focused on competitive markets where consumers have choice – to rural areas where 'business models', economic contexts, communication needs and appropriate technologies are different. Recognition of these differences and the opportunities and constraints they present leads to an appreciation of the importance of diverse network operators and providers in such areas; these include community operators, and economic producers/organisations who might also serve as providers of ICT services.

Such diversity can be encouraged by "incentivising" not only competitive behaviour but also collaborations that take advantage of complementarities between different aspects of infrastructure ownership and service provision - for example collaboration in fostering and financing infrastructure development, encouraging the aggregation of demand, and of financial and technical resources etc.

Collaborations should also be considered and encouraged with non-telecom partners. This requires a rethink of traditional perspectives of telecom regulation that are predominantly sector specific, and the adoption of more economically and socially inclusive perspective/approach instead. Such an approach/perspective would see ICTs as more than just a communicative tool but as key to local development. In particular, workshop participants promoted the idea of a multisectoral approach to regulation and/or adoption of a multi-sectoral regulator model - where the focus is on exploiting the complementarities between different types of infrastructure (e.g. laying down roads, water canals, power and ICT cabling or use of power grid for enable ICT) so as to not only reduce costs of infrastructure development but also to contribute to the potentially more effective use of universal access funds and/or scarce development resources.

There is therefore a clear need for the IGF to advance the development dimensions of ICT regulation. This can be achieved by enhancing the priority of ICTs in development (and investment) decision-making spaces and by encouraging the creation of incentives that promote ICTs as a development tool - particularly at the level of rural/local access. Such regulation would incorporate more than market-driven incentives and/or address a market-failure situation, but seek to locate ICT regulatory policy in the context of development and local development strategies. This would focus on complementarities in providing and financing critical infrastructures and include the promotion of public-private partnership models. Such regulation would also move beyond just direct uses of ICT but also consider its transformative aspects in terms of local development opportunities by enabling the reorganisation and enhanced viability of local enterprises, and empowerment of stakeholders etc.

A focus on the developmental aspects of ICTs also requires that regulation promotes technological choice, responds to the demands of communities, and addresses the challenges/opportunities of convergence.

The rapid uptake of mobile phones in developing nations means that they are now considered to be viable technology for providing voice, access to the Internet and a variety of financial and e-governance services - at least at present. Regulation must therefore provide an enabling environment for the use of the technology for such purpose. A realisation of the potential role mobile phones will play in developing countries, also necessitates the promotion of content creation for such devices, as well as services and applications that meet the local need - for example financial content (that - with respect to a multi-sector approach to telecom regulation - would require cooperation between telecoms (mobile) and financial sectors).

In responding to the demands of communities, regulation needs to facilitate exploration of new generation community-driven networks as platforms for a variety of ICTs - cheap telephony, community-radio and Internet-based content. Such networks offer a potentially more economically sustainable basis by (i) helping to aggregate and grow demand (rather than only focusing on shared access) for a range of ICTs and services that can be provided on the platform and (ii) by being more responsive to current/changing community needs as the focus is not on any one technology.

The demands on regulators and regulation are significant - in terms of creating, implementing, and managing access incentives, coordinating with complementary sectors, promoting the developmental aspects of ICTs, promoting diverse participation in the provision of products and services in rural and underserved areas etc. The need to build up the capacities of regulators can therefore not be over stated - particularly in light of converging technologies that hold great opportunities for the delivery of services but also introduce great challenges and complexity to the work of regulators.

## Toward a Development Agenda for Internet Governance

*Organizers: Project on the Information Revolution and Global Governance, Program for the Study of International Organization(s), Graduate Institute for International Studies, Geneva, Federal Office of Communication, Government of Switzerland, Brazilian Internet Steering Committee, CGL.br, Consultative Committee on UN Information Technology, China Association for Science and Technology, Internet Society of China, Association for Progressive Communications, Center for Global Communications, International University of Japan*

*Panelists: Cristiano Berbert, Second Secretary, Permanent Mission to the United Nations in Geneva, Brazil; Olga Cavalli, Advisor to the Ministry of Foreign Affairs, and representative to the Governmental Advisor Committee of ICANN, Argentina; Raúl Echeberría, Executive Director, LACNIC (Internet Address Registry for Latin America and the Caribbean), Uruguay; Anriette Esterhuysen, Executive Director, Association for Progressive Communications, South Africa; Peter H. Hellmonds, Head of Corporate Social Responsibility, Nokia Siemens Networks, Germany*

*Moderator: Dr. William J. Drake, Director, Project on the Information Revolution and Global Governance Program for the Study of International Organization(s) Graduate Institute for International and Development Studies Geneva, Switzerland*

In recent years, many stakeholders have worked to promote broad "development agendas" in the international institutions and policy debates dealing with such issues as trade and intellectual property. But in the field of Internet governance, there has not been any comparable debate about whether a development agenda approach could be functionally useful and politically feasible. To help fill this gap, the workshop presented a multistakeholder dialogue on the potential value and broad parameters of a development agenda for Internet governance.

A development agenda can be defined as a holistic program of analysis and action intended to mainstream development considerations into the operations and outputs of

Internet governance mechanisms. At a minimum, this presumably would include gathering and organizing information about governance mechanisms' activities and achievements and their relationship to developmental objectives; and identifying potentially generalizable best practices and lessons learned that organizations could choose to consider when pursuing their respective work programs. In addition, subject to consensus among the parties involved, particular governance mechanisms could opt to build upon this knowledge base and pursue more ambitious programmatic and policymaking initiatives, as is being done in the WTO and WIPO. Given the highly distributed ecosystem of Internet governance, a development agenda would need to be flexible enough to facilitate varying responses by the relevant institutions.

The panelists uniformly supported in principle the idea of establishing a development agenda, and they agreed that the IGF's unique character and mandate make it the right venue in which to consider the matter. However, there were differences of emphasis among them with respect to what the concept might mean in practice. For example, one panelist argued that the WIPO approach provides a sufficient model that could be transposed into the Internet governance environment, and that there was no need to "reinvent the wheel." Another suggested that a development agenda should in particular facilitate decentralized coordination among national and regional bodies. A third panelist took note of the programs and partnerships already underway in some regional registries, which might be replicated elsewhere in the context of a larger and more inclusive process. A fourth panelist emphasized the importance of access issues, and of viewing the IGF themes of openness, access, diversity, and security from a developmental perspective. Finally, a fifth panelist underscored the need to promote the UN's Millennium Development Goals through a development agenda.

The subsequent discussion with the large audience in attendance was robust and interactive. Audience members raised a number of points concerning the possible role of the IGF in the elaboration of a development agenda, such as: the promising evolution in thinking about IG4D since the Athens meeting, as evidence by the panel; the need to move beyond workshop discussions to a more broad-based debate on the topic; the potential utility of non-binding recommendations on IG4D; the importance of the WSIS principles to the IGF generally and a development agenda specifically; and the desirability of also promoting a development agenda within national and regional IGFs, and of taking note of IG4D work already underway at these levels. In addition, other audience members highlighted some specific substantive issues that an agenda could encompass, e.g. core resource management, interconnection costs, access barriers, and cybersecurity in the developing world.

## Trusting the Quality on the Internet

*Organisers: World's Eight Broadcasting Unions, The Council of Europe, The International Federation of Journalists, and the BBC.*

*Panellists : Andrew Keen, San Francisco based author and media analyst.; Karol Jacobowicz, Polish media scholar and analyst; Richard Sambrook, Head of BBC Worldwide, and Vice President of the EBU.; Elisabeth Costa, Globo TV Journalist; Mathias Traimer, Council of Europe; Mark Kelly, Irish Council for Civil Liberties; Catherine Trautman, European Parliament; Vint Cerf, Google*

*Moderator: Nik Gowing, news-anchor for BBC World.*

The objective of the Workshop was to examine the extent to which content available today on the Internet can be considered 'high quality', to try to weigh up the value it has for society, and to draw conclusions about how to raise its quality.

The discussions concerned User Generated Content and professional content, and their

relationship. A number of points emerged from the discussion.

- There is a range of opinion about whether, on balance, content on today's Web 2.0 (and in future Web 3.0) is necessarily creating a better informed, thinking and caring society.
- Producing content for the web is simply done and low cost, and in principle can be done by everyone from school children to media professionals, so this seems a major advance in society.
- Though there is much creative and valuable content on the web, prepared by ordinary people who are not skilled media professionals, there is, equally, much more which is considered to have little positive value.
- Furthermore, the User Generated Content medium, as with other web sources, can also be exploited by marketing and politics.
- User Generated Content can have a dramatic impact and high value for society, particularly when it captures news stories which would be otherwise hidden from the world.
- A main problem for the world is to know whether the User Generated Content which contains news or a message is trustworthy or genuine.
- The mainstream media industry, or parts of it, has often the professionalism to check sources, and provide a reliable gateway for such content - to be 'islands of trust'.
- Nevertheless, Panel Members reported that mainstream professional journalism is not in 'good condition' everywhere. It is in danger of being swept away by the attraction of content produced by the public at low or no cost. One Panellist also reported strong corporate influence on news today.
- A point of disagreement came over the value of having available 'the wisdom of the many' from the web, and whether this was really of value to society.

Improvements, all agreed, to the situation may largely come from two steps:

- A recognition and acknowledgment by mainstream media of the job they have to do as media professionals, in the age of Web 2.0 today, and Web 3.0 tomorrow. They must be the points of reference for quality in media content, and this must include the journalistic skills of verification and checking.
- Young people need to be taught, from an early age, the skills of media literacy. They must be taught how to make media and how to read media.

Society must recognise this, and the mainstream media must help to achieve it. If we achieve these objectives we will be bringing value to society rather than just using new technical tools for amusement, or for their own sake.

## Public Policy on the Internet: What is it? Who makes it?

*Organizers: Internet Governance Project, Government of France, Ian Peters and Associates, Afiliias (private sector), Internet Governance Caucus (civil society).*

*Panelists: Olga Cavalli: Advisor of Argentina Ministry of Foreign Affairs and university professor; Bertrand de la Chapelle: Special Envoy for the Information Society in the French Foreign and European Affairs Ministry; Miriam Sapiro: President of Summit Strategies International and consultant, contributing on behalf of the Internet Chamber of*

Commerce; Paul Twomey, Chief Executive Officer of ICANN; Ian Peter: Management Consultant of Ian Peter Associates; Parminder Jeet Singh: Executive Director of IT for Change, Co-coordinator of the civil society Internet Governance Caucus; Milton Mueller: Professor at Syracuse University and Partner of the Internet Governance Project

The goal of the workshop was to initiate a constructive discussion on globally applicable principles on public policy, which form an important, albeit underdeveloped part of the Tunis Agenda. More specifically, the workshop intended to discuss the meaning of globally applicable principles on public policy in the context of the coordination and management of critical Internet resources.

The Tunis Agenda introduced globally-applicable principles on public policy issues as a new concept to the debate on Internet Governance. Traditionally, public policies are understood to relate to the national, not the transnational level. In order to make them applicable in transnational settings, it seems necessary to clarify what we mean by global public policies and also who should be responsible for them. The panelists were thus asked to address the following four questions:

- What kind of public policy principles would be globally applicable and acceptable?
- How could they be developed and implemented?
- Who would be the key actors and what are the relevant forums?
- Are there examples of public policy principles being both feasible and desirable in the context of Internet Governance?

Is global public policy just whatever governments say it is, as one of the panelists suggested? This view was criticized by another speaker who claimed that such a definition would open the door to arbitrary public interference in the Internet. Public policy principles, this panelist proposed to regard global public policy principles as a *constitutionalization of intergovernmental power* designed to avoid abuse of freedom on the Internet. A somewhat different but similarly general definition started from the assumption that anything contested should be regarded as political. Another speaker asserted that global public policy is about global public *interests*. Various forms of multi-stakeholder governance should be brought to bear to collectively define the global public interest. High-level concepts such as the right of any actor, including individuals, to participate, in an appropriate manner in the policy process, accountability, transparency, and the capacity to redress decisions (appeal at various stages) could help shaping regimes and solve potential conflicts.

Another speaker stressed the fact that multi-stakeholder approaches don't provide any rights to citizens beyond the right to be present and thus amount to a deregulation of participation. This was echoed from a panelist who suggested that international principles often reflect the lowest common denominator, and that we therefore might expect too much from forging international public policy principles. Since notions of public policy do not map easily onto the internet, she recommended that instead of pushing for public policy principles, we should keep improving collaboration among the various groups involved. Our focus should be on norms rather than on policy principles. In her view, the IGF offers an important way to pursue such a self-governing strategy. However, another speaker cautioned against dismissing too quickly the achievements of state sovereignty in policymaking.

Examples given for global public policy principles applicable to the Internet included:

- Global interconnection (as opposed to a fragmented Internet),

- Net neutrality,
- Principles incorporated in competition and trade law,

Development related rights. One panelist expressed the view that public policy principles shouldn't be exclusively defined in terms of negative rights since such an approach tends to wall off the distributional aspects of digital technology.

There was no agreement as to how principles of global public policy could be effectively implemented. One speaker said that we should rely more on forms of transparency and (legal) accountability than on enforcement mechanisms.

## Appendices

### Glossary of Internet Governance Terms

<b>AfriNIC</b>	Regional Registry for Internet Number Resources for Africa (Member of NRO)
<b>APC</b>	Association for Progressive Communication
<b>ASCII</b>	American Standard Code for Information Interchange; seven-bit encoding of the Roman alphabet
<b>ccTLD</b>	Country code top-level domain, such as .gr (Greece), .br (Brazil) or .in (India)
<b>CoE</b>	Council of Europe
<b>CSIRTs</b>	Computer Security Incident Response Teams
<b>DNS</b>	Domain name system: translates domain names into IP addresses
<b>DRM</b>	Digital Rights Management
<b>DOI</b>	Digital Object Identifier
<b>ETNO</b>	European Telecommunications Networks Operators Association
<b>F/OSS</b>	Free and Open Source Software
<b>GAC</b>	Governmental Advisory Committee (to ICANN)
<b>gTLD</b>	Generic top-level domain, such as .com, .int, .net, .org, .info
<b>IANA</b>	Internet Assigned Numbers Authority
<b>ICANN</b>	Internet Corporation for Assigned Names and Numbers
<b>ICC</b>	International Chamber of Commerce
<b>ICC/BASIS</b>	ICC Business Action to Support the Information Society.
<b>ICT</b>	Information and communication technology
<b>ICT4D</b>	Information and communication technology for development
<b>IDN</b>	Internationalized domain names: Web addresses using a non-ASCII character set
<b>IETF</b>	Internet Engineering Task Force
<b>IGF</b>	Internet Governance Forum
<b>IGOs</b>	Intergovernmental organizations
<b>IP</b>	Internet Protocol
<b>IP Address</b>	Internet Protocol address: a unique identifier corresponding to each computer or device on an IP network. Currently there are two types of IP addresses in active use. IP version 4 (IPv4) and IP version 6 (IPv6). IPv4 (which uses 32 bit numbers) has been used since 1983 and is still the most commonly used version. Deployment of the IPv6 protocol began in 1999. IPv6 addresses are 128-bit numbers.
<b>IPRs</b>	Intellectual property rights
<b>IPv4</b>	Version 4 of the Internet Protocol
<b>IPv6</b>	Version 6 of the Internet Protocol
<b>IRA</b>	International Reference Alphabet
<b>ISOC</b>	Internet Society
<b>ISP</b>	Internet Service Provider

<b>ITAA</b>	Information Technology Association of America
<b>ITU</b>	International Telecommunication Union
<b>IXPs</b>	Internet exchange points
<b>LACNIC</b>	Latin American and Caribbean Internet Addresses Registry (Member of NRO)
<b>MDGs</b>	Millennium Development Goals
<b>MoU</b>	Memorandum of Understanding
<b>NAPs</b>	Network access points
<b>NGN</b>	Next generation network
<b>NRO</b>	Number Resource Organization, grouping all RIRs – see below
<b>OECD</b>	Organisation for Economic Co-operation and Development
<b>Registrar</b>	A body approved ('accredited') by a registry to sell/register domain names on its behalf.
<b>Registry</b>	A registry is a company or organization that maintains a centralized registry database for the TLDs or for IP address blocks (e.g. the RIRs — see below). Some registries operate without registrars at all and some operate with registrars but also allow direct registrations via the registry.
<b>RIRs</b>	Regional Internet registries. These not-for-profit organizations are responsible for distributing IP addresses on a regional level to Internet service providers and local registries.
<b>Root servers</b>	Servers that contain pointers to the authoritative name servers for all TLDs. In addition to the "original" 13 root servers carrying the IANA managed root zone file, there are now large number of Anycast servers that provide identical information and which have been deployed worldwide by some of the original 12 operators.
<b>Root zone file</b>	Master file containing pointers to name servers for all TLDs
<b>SMEs</b>	Small and medium-sized enterprises
<b>TLD</b>	Top-level domain (see also ccTLD and gTLD)
<b>UNESCO</b>	United Nations Educational, Scientific and Cultural Organization
<b>WGIG</b>	Working Group on Internet Governance
<b>WHOIS</b>	WHOIS is a transaction oriented query/response protocol that is widely used to provide information services to Internet users. While originally used by most (but not all) TLD Registry operators to provide "white pages" services and information about registered domain names, current deployments cover a much broader range of information services, including RIR WHOIS look-ups for IP address allocation information.
<b>WSIS</b>	World Summit on Information Society
<b>WITSA</b>	World Information Technology and Services Alliance
<b>WTO</b>	World Trade Organization

## Dynamic Coalitions

It was generally felt that the Dynamic Coalitions that emerged from the Athens meeting had been a great innovation and in many ways become a distinctive feature of the IGF. Dynamic Coalitions could also broaden its impact. One speaker held the view that they were what he called “a central component of the fact that the IGF is not only an annual event but also a process”.

The multi-stakeholder principle was generally seen as the most important defining element of the Dynamic Coalitions. There was support for the need to develop some criteria for the recognition of a Dynamic Coalition, but it was felt that at this stage it was necessary to be flexible, as they were still in an experimental phase. It was important that they remained open to all stakeholders, where possible, with actual participation by multiple stakeholders from different regions.

The point was made that these Dynamic Coalitions were representative of a larger constituency and not just the outcome of a few individuals. Also, the topic should be in line with the IGF mandate and the IGF agenda. They should not be pure advocacy groups.

One contribution called for “institutional checks and balances to ensure the structure of a Dynamic Coalition” and a “formal mechanism by which reports or recommendations by the Dynamic Coalitions could be received by the IGF’s plenary body as an input to its policy-setting role”.

It was also pointed out that the goal of the Dynamic Coalitions was not just to provide a space for dialogue, but they should go beyond dialogue, into some form of action. A Dynamic Coalition should be “IGF-plus” and capable of achieving something.

Descriptions of all dynamic Coalitions can be found at:  
<http://www.intgovforum.org/Dynamic%20Coalitions.php>.



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