Proceedings

India Internet Governance Forum 2023

Theme:

Moving Forward - Calibrating Bharat's Digital Agenda

Hybrid Mode

Physical venue: New Delhi

5 Dec 2023

IIGF

INDIA INTERNET GOVERNANCE FORUM

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Abbreviations

ABDM	Ayushman Bharat Digital Mission
AI	Artificial Intelligence
API	Application Programming Interface
ASCII	American Standard Code for Information Interchange
BIF	Broadband India Forum
CCAOI	Cyber Cafe Association of India
CCTLD	Country Code Top Level Domain
CERT-IN	Computer Emergency Response Team-India
CoWin	Winning over Covid
CSC	Common Services Centres
CSTD	Commission on Science and Technology for Development (UNCTAD)
DNS	Domain Name System
DPDP	Digital Personal Data Protection Act, 2023
DPI	Digital Public Infrastructure
DST	Department of Science and Technology
FTTH	Fibre to the Home
FUD	Fully Undetected (Malware)
GAC	Governmental Advisory Committee (ICANN)
GDC	Global Digital Compact
GDP	Gross Domestic Product
GNSO	Generic Names Supporting Organization (ICANN)
I4C	Indian Cybercrime Coordination Centre
IANA	Internet Assigned Numbers Authority
ICANN	Internet Corporation on Assigned Names and Numbers
ICT	Information and Communications Technologies
IDN	Internationalized Domain Names

IETF	Internet Engineering Task Force
IGF	UN Internet Governance Forum
IIGF	India Internet Governance Forum
IP	Internet Protocol
IPC	Indian Penal Code
ISO	International Organization for Standardization
ISOC	Internet Society
IT	Information Technology
ITU	International Telecommunication Union
MAG	Multistakeholder Advisory Group
MeitY	Ministry of Electronics and Information Technology
MENA	Middle East and North Africa
MOSIP	Modular Open Source Identity Platform
MSME	Micro, Small, and Medium Enterprises
NCFL	National Cybercrime Forensic Laboratory
NCRP	National Crime Reporting Portal
NIXI	National Internet eXchange of India
OCEN	Open Credit Enablement Network
OEM	Original Equipment Manufacturer
ONDC	Open Network for Digital Commerce
PM WANI	Prime Minister’s Wi-fi Access Network Interface
PwD	Person(s) with Disabilities
RFC	Request for Comments (IETF)
SSAC	Security and Stability Advisory Committee (ICANN)
SMTP	Simple Mail Transfer Protocol
STQC	Standardisation Testing and Quality Certification
TCP	Transmission Control Protocol

1. Executive Summary

The third edition of the India Internet Governance Forum 2023 was held on 5 December 2023 in Hybrid mode with the theme 'Moving Forward - Calibrating Bharat's Digital Agenda'. In the inaugural session, the keynote address was delivered by the Chief Guest, Shri. Rajeev Chandrasekhar, Hon'ble Minister of State for Electronics and Information Technology, Government of India. He underlined the importance of the multi-stakeholder approach to Internet governance and said that the importance of the digital economy in India which would help us to achieve a trillion-dollar economy by 2026 depended largely on the underlying Internet, its resilience, latency and performance. Dr. Devesh Tyagi, CEO, NIXI and Chairman, Coordination Committee, IIGF2023 in his opening remarks spoke about the importance of good infrastructure, the need to further reduce the digital divide and the role of Internet security.

Ms. Carol Roach, IGF MAG Chair, emphasised the importance of India's participation in global forums such as the UN IGF to ensure its involvement and representation. Ms. Anita Gurumurthy, Founder and Executive Director, IT for Change, felt that the strong policy focus on the girl child and women's empowerment should be used to ensure that the Internet becomes an enabler of rights and a gateway to full participation in society. Ms. Sally Costerton, Interim President and CEO, ICANN, made a special mention of India's pivotal role in supporting multi-stakeholder Internet governance.

Shri Sushil Pal, Joint Secretary, MeitY, said that the fast pace of growth of emerging technologies called for effective governance as otherwise it could further deepen the digital divide. Ms. Amrita Choudhury, Director, CCAOI, gave a recap of IIGF 2021 and IIGF 2022, highlighting key achievements and progress made in the last two years. Ms. Sarah Kemp, Vice President, International Government Affairs, Intel, spoke about the importance of digital trust and called on governments to focus on non-partisan approaches to security that would foster innovation and economic growth. Shri. S Krishnan, Secretary, MeitY said that gaps between the technological leaps that have been made and the regulatory frameworks that exist were showing up. There were bound to be increasing regulatory challenges which the government was doing its best to address. Shri. T.V. Ramachandran, President, BIF and Vice Chairman, Coordination Committee, IIGF proposed a formal vote of thanks.

There were three panel discussions. The first panel, "Building a secure, trusted and resilient cyberspace for Bharat", provided a comprehensive overview of the current state of cybersecurity, the challenges faced, and collaborative initiatives. Zero trust architecture and collaboration, network security, data security and the role of auditors in maintaining a secure digital environment were also discussed. It was felt that citizen centric approaches, creating awareness and maintaining cyber hygiene were important to create a secure, resilient and trusted cyberspace for Bharat.

The second panel focused on 'Enabling Innovation for India's Developmental Goals'. The participants were clear that an inclusive design would be the real answer, with solutions co-developed with the community. It was necessary to be cautious about what technology could do,

said the panellists, while highlighting the importance of the collaborative actions of the Government, market players and community to address India's development goals.

The third panel was on "Bridging Divides". Here the panellists explored the key challenges and opportunities in bridging the digital divide. A good development in this sphere was the compliance with IS 17802 mandated by the Government. The panellists said that a holistic approach had to be taken, rather than a siloed approach; and that connectivity had to be meaningful: affordable, accessible, safe and inclusive to reduce the prevailing divide.

In the valedictory session, the panellists looked at requirements for 'Calibrating Bharat's Digital Agenda and Leadership for Global Digital Governance & Cooperation'. With the Internet becoming ubiquitous and an enabler, regulatory challenges were constantly emerging. The panellists agreed that a national strategy for Internet governance had to be developed with greater participation of different stakeholders in working groups at the international level. Providing quality Internet was essential to resolve existing divides as well to address new divides. Social infrastructure should also be considered in addition to DPI and physical infrastructure. Open conversations between different stakeholders were also required to come up with novel ideas to address emerging as well as potential polycrisis events related to the Internet. The panellists affirmed that the Internet needs to remain free, open, inclusive, reliable, secure and interoperable based on a multi-stakeholder model.

The programme is available at https://www.youtube.com/watch?v=6Hh7gPPSK-o

2. IIGF 2023 – Key Takeaways

a. Building a secure, trusted and resilient cyberspace for Bharat

- A trusted and safe Internet is critical for building a resilient cyberspace for India.
- Good cyber hygiene and reporting practices have resulted in increased reporting of cybercrimes. These should be further enhanced.
- The Cyber Swachata Kendra's success illustrates a wide-scale impact on cybersecurity when such actions are citizen-centric and collaborative.
- The evolution of legal frameworks is a significant step in providing a safer cyber environment.
- The lack of trained manpower in policing cybercrime is a major challenge; creation of reporting portals, ongoing training programs, and threat analysis are measures to tackle the increasing extent of cyber fraud. Such factors need to be strengthened and enhanced.
- Continuous capacity building on cybersafety, mitigating threat factors to law enforcement and other stakeholders is essential.
- Zero Trust Architecture and collaboration are required to address threats such as zero days, ransomware, and phishing attacks.

- A multifaceted approach to cybersecurity, covering aspects such as encryption, multi-factor authentication, and maintaining logs are essential.
- International cooperation and awareness programs are needed to address the challenges in cyberspace and commitment to ensuring a secure and trusted Internet.

b. Enabling Innovation for India's Developmental Goals

- Innovation is essential for addressing India's developmental challenges and achieving its sustainable development goals. Hence, policies and programs that promote a culture of innovation and risk-taking need to be implemented.
- Technology plays a crucial role in driving innovation, but it must be complemented by social innovation and a focus on human-centred solutions. For this, collaboration between government, academia, and industry must be enhanced to foster innovation ecosystems.
- Investment in research and development, particularly in areas relevant to India's developmental challenges, needs to increase. Likewise, innovative financing mechanisms to support promising startups and entrepreneurs are needed.
- A culture of risk-taking and experimentation is essential for nurturing innovation. For this, a supportive regulatory environment that encourages innovation while protecting intellectual property rights and ensuring consumer safety has to be created.
- Inclusive design is the key to solutions for people with disabilities, not additions as an afterthought or intermediate solutions. Solutions to problems need to be co-created together with the respective communities.
- AI tool-chains could be harnessed for providing comprehensive solutions.
- The community, along with government and markets, needs to collaboratively work towards development goals.
- Procurement policies of the government need to keep pace with the technological advancements.

c. Bridging Divides

- Investment is needed in digital literacy programs and initiatives to help people develop the skills they need to use digital technologies effectively.
- Raising awareness of existing standards and tools for accessibility is essential.
- Meaningful access should be there and people should be able to get meaningful content along with affordable devices. For example, the use of refurbished handsets should be accelerated to provide affordable last mile connectivity in rural areas.
- Development of new technologies that can be used to bridge the digital divide, such as satellite broadband and AI-powered translation tools, need to be supported.

- Mode Technology to connect end users should be technology agnostic and future proof.
- Collaboration and cooperation between all stakeholders, governments, businesses, civil society, and individuals needs to be promoted to address the digital divide.
- Inclusivity by design has to be the cornerstone of all activities.

d. Valedictory session

- It is essential to strengthen the multistakeholder model of Internet Governance that India endorses.
- Having open platforms where you can have free flowing discussions between different stakeholders, brainstorming on how to improve things, best practices, and challenges without bondages is essential.
- Strengthening the multistakeholder IIGF platform to facilitate such open deliberations and brainstorming is crucial.
- An India strategy on Internet governance should be drafted with the inputs of all relevant stakeholders, which should be revisited regularly. There should be regular working group meetings to ensure that India's aspirations are met.
- Identification of talent, forming a talent pool and capacity building for participation at international forums and discussion groups is essential.
- It is vital to encourage participation in technical standard discussions at the international level and perhaps think of organising an IETF in India.
- India has built an innovation ecosystem and the DPI is an example of it.
- Building social infrastructure to support DPI and Internet infrastructure is necessary.
- There is a need to encourage, focus and drive innovation and balance it with regulation so that the aspirations that we have as a country are achieved.
- India has a lot to offer the world. This needs to be looked at, packaged, calibrated and exported.

3. Report of Opening Session

a. Opening Session

1. Summary

The programme began with Dr Devesh Tyagi, CEO, NIXI and Chairman, Coordination Committee, IIGF 2023 welcoming participants. He said that since the announcement of the Digital India initiative in 2015, India was the most happening place with plentiful opportunities and everything aligned to move forward. He spoke about the importance of good infrastructure and the need to further reduce the digital divide and the importance of Internet security. While rules and policies had been framed, there was the need to constantly work, as with new opportunities, new threats also arose which had to be mitigated.

Ms Carol Roach, IGF MAG Chair referred to the IGF Leadership Panel's document, "The Internet We Want" and said the Internet should be whole and open, universal and inclusive, free-flowing and trustworthy, safe and secure, and rights respecting. She also said that it was important to participate in global fora to ensure that India's voice is heard. Ms. Anita Gurumurthy, Founder and Executive Director, IT for Change, said while India was rapidly digitalizing, there was a risk of leaving Bharat behind. She said that the strong policy focus on the girl child and women's empowerment should be used to ensure that the Internet can become an enabler of rights and a gateway to full participation in society. Ms. Sally Costerton, Interim President and CEO, ICANN, referred to India's huge progress in the development of digital public infrastructure and made a special mention of India's pivotal role in supporting multi-stakeholder Internet governance.

Shri Sushil Pal, Joint Secretary, MeitY said that the fast pace of growth of emerging technologies called for effective governance as otherwise it could further deepen the digital divide and make us all insecure. Ms. Amrita Choudhury, Director, CCAOI, gave a recap of IIGF 2021 and IIGF 2022, highlighting key achievements and progress made in the last two years. Ms. Sarah Kemp, Vice President, International Government Affairs, Intel, spoke about the importance of digital trust and called on governments to focus on non-partisan approaches to security that would foster innovation and economic growth.

Shri. S Krishnan, Secretary, MeitY described key activities undertaken by India to ensure that the Internet is inclusive and the digital economy also becomes inclusive. He said that gaps between the technological leaps that have been made and the regulatory frameworks that exist were showing up and there were bound to be increasing regulatory challenges which the government was doing its best to address. Shri. Rajeev Chandrasekhar, the Honourable Minister of State for Electronics and Information Technology, said that multi-stakeholderism would be the cornerstone of how the future of the Internet would be shaped in terms of policy, regulation and technology. He said that the digital economy in India becoming a trillion-dollar economy by 2026 depended largely on the underlying Internet, its resilience, latency and performance.

Shri T.V. Ramachandran, President, BIF and Vice Chairman, Coordination Committee, IIGF proposed a formal vote of thanks. He also mentioned that today, even as per the exacting norms

of the Internet Resilience Index (IRI), and despite the huge challenges before the subcontinent, India had scored a global high on net security.

Full texts of the addresses of all speakers at the inaugural session are provided below.

2. Dr. Devesh Tyagi, CEO, NIXI, (Chairman, Coordination Committee, IIGF)

We are proud to be here today and I also thank everybody for joining us on this particular forum. When we talk of India Internet Governance Forum, the first thing that comes to my mind is India. It is our country, 1.4 billion people, 900 million Internet users and a lot of opportunity. Since the announcement of Digital India in 2015, it is the most happening place. Opportunities are there and everything is aligned to move forward. Second thing in IIGF is the Internet. Our population is huge. There are a lot of underserved people, there are a lot of people who are still unreached. A lot of progress has been made but the Internet is the solution for this. And 900 million users clearly indicates this. All the government policies, all the government rules, regulations have been put in place to promote the Internet at the core level. I congratulate my Ministry, Ministry of Electronics and IT, for being part of that. We are proud as part of NIXI to be contributing to that.

Now, we come to IIGF. For the Internet there are a few things that come to mind. First thing is that we should have a very good infrastructure. We should be clearly visible or clearly know of the digital divide which is in our country, though the digital divide has reduced considerably since 2015 when the Digital India programme was announced. Second is the security aspect. Internet security is the hottest topic for now. Availability of the Internet which the government is ensuring through various programmes has put our focus on that. For this, Internet governance is required. For governance, we have framed the rules, framed the policies, and we are consistently working because new opportunities are coming, new threats are opening up. We have to see and mitigate those threats. Our policies and regulations are being aligned to mitigating such threats. Lastly, forum. All the stakeholders are making this forum. I am very sure that through this forum, we will be discussing formulating policies or contributing towards making our suggestions to the government to promote such rules and regulations which increase the penetration of the Internet. So today is an opportunity. I encourage each of you to actively participate, share your insights and embrace the spirit of collaboration. Together we have the power to create meaningful impact in this space through raising issues of importance that would impact ultimate users. I am confident that the knowledge and experience here during the event will inspire innovation, foster growth and leave a lasting impact on all of us. With these I congratulate those here especially those part of the forum.

3. Ms. Carol Roach, IGF MAG Chair

Live from Bahamas

It is my pleasure to be with you today at India IGF, an important inaugural meeting that brings together stakeholders keen on moving India forward. I am Carol of the Ministry of Economic Affairs, Government of the Bahamas. Just a few weeks ago, I was appointed by the UN Secretary General as the Chair of the Internet Governance Forum, a multi-stakeholder advisory group. As you know the IGF is a global multi-stakeholder platform through which all stakeholders can discuss public policies, issues pertaining to the Internet. At this meeting many stakeholders are present who support the IGF processes either as session participants, organisers or speakers at this annual forum. I want you to know that we are immensely grateful for your country's participation and an extra handclap for Amrita. It is stakeholders like you who make the IGF alive, relevant and needed.

We concluded the 18th Annual IGF meeting in early October in Kyoto. The meeting hosted by the Government of Japan was opened with remarks from the UN Secretary General and the Prime Minister of Japan. As the Prime Minister rightly said in his welcoming statement, by bringing together participants from all over the world, from different perspectives and bringing together their wisdom through a multi-stakeholder approach we can maximise the benefits of the Internet while reducing risks. Indeed, with a record number of 9000 participants in Kyoto, the IGF proved to be a remarkably productive multi-stakeholder platform enabling discussions among all stakeholder groups. Over 300 sessions took place under the overarching theme of "the Internet We Want Empowering All People" and around eight main sub-themes ranging from digital inclusion, human rights to Internet fragmentation, artificial intelligence and global digital governance. The IGF panel was chaired by Vint Cerf, well known as the father of the Internet and co-chaired by Nobel Peace Prize winner Maria Ressa who also took the opportunity to present their vision paper on "The Internet We Want".

The IGF Leadership panel (LP) believes that the Internet we want is whole and open, universal and inclusive, free-flowing and trustworthy, safe and secure, and rights respecting. The LP's position aligns closely with your objectives for India, promoting inclusive growth in electronic services products manufacturing and job opportunities, providing digital infrastructure as a utility to every citizen and empowering citizens digitally. I would like to encourage you to consult the paper 'The Internet We Want' but also the Kyoto IGF messages that consolidate the major takeaways from all sessions.

The next year's IGF will be hosted by the Kingdom of Saudi Arabia in Riyadh. As a leading edge for tech development and entrepreneurship in the MENA region, we plan to work with the host country to ensure that the 19th IGF is a success in terms of stakeholder engagement and programme quality. I strongly, strongly encourage India to participate in the Forum to ensure that your voice is heard. The IGF is a forum that aims to identify areas for continued development and we are keen to provide a platform that better caters to national and regional IGFs. As such we would welcome ideas that could contribute to the 2024 cycle serving you better.

We are at an important moment for the Internet and digital space given several important processes happening. The UN member states continue negotiating the Global Digital Compact or the GDC aiming to have it agreed upon in next year's Summit of the Future. These processes have a huge global impact and it is therefore crucial that IIGF keep apprised of what is happening and be totally, utterly involved by putting their position forward to both the global IGF and directly to

the GDC co-chairs. I again stress: make yourselves heard. The WSIS+20 process which will take place in 2025 has already started its active consultative process. It will mark a significant milestone of two decades of progress in the implementation of the outcomes of the world summit on information society. As a major outcome of WSIS, the IGF mandate will also be part of the 2025 review process and by extension, this pertains to the IIGF.

A multi-stakeholder community such as the IIGF is critical for building a secure, trusted and resilient cyber space for Bharat and indeed, the world. This further means that it is vital for you and your various stakeholders to participate in all Internet governance related processes, including the global IGF. Your theme and titled panels directly reflect India's commitments to the people. I particularly like the word calibrating. To me it shows that you intend to take a deliberate approach to assessing your current state and taking the necessary action to adjust to reform and to meet the targets of India's digital agenda. In my role as the Chair of the MAG, I offer the assistance to IIGF of IGF and I invite you to cooperate and collaborate with us. National and regional IGFs are vital and so I encourage you to join us in working together for a strong IGF that stands for good multi-stakeholder governance of the Internet. We look forward to your participation and I hope you have a progressive and productive IIGF 2023. Thank you.

4. Ms. Anita Gurumurthy, Founder & Executive Director, IT for Change

Live from Bangalore

I am really honoured to be here and I think it would have been wonderful to have been there in person. I apologise that I couldn't be. I am also honoured to be following in the shoes of Carol, your intervention was extremely inspiring. I am probably going to take a leaf out of the tenor that you set. Yes, India is rapidly digitalizing but I think there is a risk of leaving Bharat behind. With 700 million active Internet users as of 2022 according to various reports, I think there is significant potential as previous speakers have also alluded to growth in rural markets for opportunities. What we actually see is that a mere 25% of adult Indian women own a smartphone in contrast to 41% men. And in keeping with the consonance and the strong policy focus on the girl child, on women's empowerment in our larger national and sub-national policies, here is an opportunity, a challenge to include women through the vital access of digital inclusion that is empowering. This empowerment is not just about mere assimilation into that larger technological sphere, it should not amount to bringing women into low skill jobs or to just distribute laptops in schools. It is not just about that. It is actually a complex idea where we have to have equality of opportunity, access to public services, accountability of institutions, so that the Internet can become an enabler of rights and a gateway to full participation in society.

The incomplete project of Bharat broadband and last mile access should be completed and today we have a very very new opportunity that is taking place in different states in a very small way that can be aggregated. We need public access points. The old idea of common CSCs, the Common Services Centres, to be rebooted and these spaces can become maker spaces. These can be available for young people, technologists, geeks, students in rural India with a focus also on local language models. We talk about large language models, we can talk about local language models and a new era of digital libraries in the grassroots which can be built from our vast experience of

the CSC programme, our enskillment programme and enterprise development opportunities. This will be a public community partnership model and I think there is a vast scope here. I think the IT Act is overall very welcome and we need to move from giving primacy to a commercial approach to a citizen centric approach. It was very inspiring for me to read that in 2025, the European Union is going to have a digital citizenship education year. They are dedicating a year to celebrate digital citizenship.

The second point I want to make is not just about the digital divide as an Internet divide or a connectivity divide but as a development divide in the data paradigm. I think that the policy space for countries to pursue their own path in the AI economy is something that India has been very vociferous about in the global arena and I think that this position is extremely important. India has an opportunity to demonstrate a unique model of data governance emphasising development, people's control over data resources, public value creation and we are seeing new developments today in the WTO for instance where certain positions on data flows are being transformed. The US has changed its view and new multilateral deliberation in the UN is coming up in the form of the global digital compact and I think India should take on a strategic leadership role to situate developing country standpoints firmly in this debate.

In the national context, I do think that Clause 16 of the Digital Personal Data Protection Act is talking about permitting cross-border data flows to other countries but through a blacklisting approach. While there be merit to this approach, I also think that it might need some kind of revisiting because I think a rights-based approach to data governance is needed that not only includes privacy and autonomy but also in the longer term, in the horizon, to situate the social and democratic rights to determine if and under what condition, people's data should flow. So, getting policies ready for this through a democratic deliberation process is needed for collective data stewardship mechanism. And yes, I love the word calibration, thank you Carol for pointing that out. I also want to place here the context which is that public policy, as always, is not just a science, it is also an art and I think orchestration of social ownership of data and public institutional mechanisms of accountability in data governance, getting that mix very right to prevent an extractivist and colonial data paradigm is very much needed. I think we need to count on our federal structure from villages to cities to states and centre and get this mix very right with public backbone infrastructure, protocols, citizen commons, to allow all of these to thrive in a very mutually productive dynamic.

To conclude, a couple of points. The AI economy is here and I think accessibility of data, getting the data stacks in agriculture, health, urban data stack, all of this ready is indeed extremely important and we have certain progressive legislation in other jurisdictions. Maybe we should learn from those and make them unique to ourselves. Finally, I think that AI regulation where transparency, accountability and public scrutiny is very necessary without ethics dumping practices of other nations is something India should really watch for. The last thing I want to say here is that UNCTAD has come up with an important report through the CSTD – the Commission on Science and Technology for Development. This report talks about data flows with equity. I think restoring trust in the economy is of course crucial because we need predictability for commercial transactions, but if we all reimagine ourselves as citizens of this Internet world, I think we need more than just trust. I think we need equity. So here is an opportunity for India with all its complexity

to demonstrate what that model for development in the Internet age will be for data flows with equity.

5. Ms. Sally Costerton, Interim President & CEO, ICANN

Recorded message

Good morning, ladies and gentlemen. Although I am not able to be with you in person, I am deeply honoured to address you. I extend my warmest greetings to Minister Rajeev Chandrasekhar and esteemed guests including Shri Krishna, Secretary, Ministry of Electronics and Information Technology; Sarah Kemp, Vice President, international government affairs, Intel and Carol Roach of the Internet Governance Forum multistakeholder advisory group. Your attendance at the forum attests to the significance of the dialogues that are about to begin.

Today we gather under the theme of moving forward calibrating Bharat's digital agenda. It is a theme that illustrates India's remarkable journey in the digital age and it reminds us of the incredible strides the nation has taken in technology and innovation. One cannot overstate the historical significance of the Internet. In less than twenty years, the Internet has revolutionised the way we communicate, conduct business, access information and connect with the rest of the world. We are more interconnected than ever before with more than five billion of the world's eight billion inhabitants now online.

Half a century since the Internet's inception, multi-stakeholder Internet governance remains the trusted foundation for its operations. At the same time, global connectivity and interoperability across myriad networks worldwide have remained uninterrupted. The Internet has enabled countless innovations including crucial technologies that connect millions of devices and solutions that allow people to use the Internet in their native language and scripts. Recent global events, notably the Covid-19 pandemic, have emphasised just how vital the Internet is. It has become our lifeline connecting us to essential information, enabling remote education and fostering human connections in times of crisis. In essence, the Internet today is not just a tool but an essential resource for all of us. Throughout this forum, participants will be given the chance to participate in substantive dialogue, exchange valuable perspectives and investigate new technologies and trends.

Founded 25 years ago as a non-profit organisation, the Internet Corporation for Assigned Names or Numbers, ICANN, is the global multi-stakeholder entity responsible for coordinating the technical management of the Internet's unique identifier systems. ICANN coordinates the allocation and assignment of names in the root zone of the domain name system and the development and implementation of policies. Our mission is to ensure the stable and secure operation of the Internet's unique identifier system so that the Internet remains functional and accessible worldwide. We also coordinate global policy development for these unique identifiers through a consensus-based process that involves representatives from across the Internet community.

As we navigate the intricacies of maintaining the Internet's stability and functionality, we face some major challenges, and I'd like to bring your attention to one of these. There are legitimate concerns amongst many governments around online crime of all types from disinformation to illegal trafficking that of course they want to address. These happen in the content layer of the end application of the Internet. And when addressing these issues, the focus must not by mistake be placed on the technical foundations of the Internet. To do so will result in the undesired outcome of not addressing the root causes of the problems and may damage the technical infrastructure of the Internet. We must navigate these areas of Internet interoperability to ensure that the fundamentals of the Internet's infrastructure are not compromised.

The Internet was created as a decentralised apolitical and accessible tool. If the unique identifiers, particularly domain names stop working everywhere, the Internet will become fragmented and we must collectively ensure that this vital global resource is managed and preserved as a common good for the world. We take our responsibility to inform and collaborate with policy makers very seriously to ensure that their understandable efforts to protect their communities do not unintentionally damage the Internet's functionality. And we will continue to collaborate with the global community to advance the cause of a safe, secure and unified Internet guided by a robust framework of multi-stakeholder governance even as the Internet's identifier systems continue to evolve.

Now, shifting to one of our biggest priorities, promoting digital inclusivity and expanding Internet access for everyone, digital inclusivity ensures that anyone regardless of location, socio-economic level, language or culture can use the Internet. Expanding access to the Internet requires addressing affordability, digital literacy and enabling locally relevant content and services. In our mission to connect the next billion people to the Internet, it is critical that we create inventive ways to service the world's different languages, systems and cultures. And language accessibility is crucial for a truly inclusive Internet. Internationalised domain names consist of characters other than ASCII letters. Through IDNs we can tackle the digital divide that hinders access for non-English speakers and creates a divide. Another crucial element of digital inclusivity is universal acceptance. This ensures that domain names and email addresses regardless of script can be used by all Internet enabled applications, devices and systems. Everyone should be able to access the Internet using their preferred language and keyboard. Ultimately, ICANN's IDN and universal acceptance initiatives seek to give individuals and organisations more control over their online presence identities and brands in a transparent and inclusive manner.

India is renowned for having a huge Internet user base with 690 million users at the start of 2023. This is exceptional and underscores India's indisputable role in the world's digital landscape and you play an important role in the movement towards the multilingual Internet. We are pleased to be working with and supporting the Indian government in reducing the digital divide and fostering digital inclusion. Today you have country code top level domains in 15 of your 22 constitutionally recognised languages using 10 different scripts in addition to English. Moreover, India has made huge progress in the development of a comprehensive digital public infrastructure and this achievement was recognised and underscored in a World Bank report released during the G20 summit just a couple of months ago.

India's accomplishments show the world what is possible when a country is dedicated to using the Internet as a tool to benefit society as a whole. I would also take the opportunity to recognise India's pivotal role in supporting multi-stakeholder Internet governance. In 2015, India affirmed its support during the WSIS+10 review and in 2016, it backed ICANN's transition to a multi-stakeholder Internet governance model. We once again request the assistance of the international community to support multi-stakeholder Internet governance and in particular, protecting the role of the technical community during the upcoming global digital compact negotiations and the WSIS+20 review. Almost 20 years after the WSIS Tunis agenda was created, a staggering 67% of the world's population benefits from the Internet. The multi-stakeholder model of Internet governance has yielded robust voluntary standards, best practices, cooperation and most importantly, trust, all of which ultimately enable a unified global Internet. It has allowed the Internet to flourish while protecting it against unilateral decision-making or capture. In closing, I would like to reiterate the strength and wisdom of this model by providing everyone with a voice the Internet remains inclusive and trusted, fostering connection, innovation and growth. Thank you, and I wish you a wonderful meeting.

6. Shri. Sushil Pal, Joint Secretary, MeitY

It is a matter of great pride for all of us in the Internet governance fraternity to witness this third edition of Internet Governance Forum IIGF 2023. The past few decades in the 21st century have been truly remarkable in terms of technological advancement and undoubtedly, they have transformed our lives. The Internet was one such path-breaking development which has profoundly changed the way in which we exchange information, we produce and consume information. Along with a host of opportunities, the Internet has brought its own range of challenges and friends, defending this overwhelmingly vast Internet space to keep it open, accessible, secure and reliable is no easy feat. To discuss these challenges and opportunities we are hosting this third consecutive edition of India Governance Forum. The community we have here today are the real pioneers working to ensure that the Internet remains open, free, accessible and secure and resilient.

The chosen theme for 2023 IGF 'Moving forward, calibrating Bharat's digital agenda' is very appropriate at this point in time when emerging technologies are evolving at a fast pace and affecting human lives. Though they are transformative in their impact, if not governed properly, they can further deepen the digital divide and make us all insecure because of numerous cyber-attacks and data breaches. Therefore, the asymmetry between the technological advancement and capacity to deal with its inherent vulnerabilities require a deeper look. The theme is thus a timely intervention to reflect, to assess and conceptualise the intricacies of the future of digital India. With this, I welcome you all for your deep and advanced engagement and thought-provoking discussions on the various interesting sub-themes all of which underscore a quest for developing a resilient and secure cyberspace which enables innovations and minimises the accessibility gap through our digital agenda. Thank you.

7. Ms. Amrita Choudhury, Director, CCAOI

The first India IGF which we had was on 25th and 27th of November 2021. We had the theme of 'Empowering India through power of Internet' and what we had done for the initial edition was to have three sub-themes. We wanted to have a more Indianized context taking from the global perspectives and so it was 'India and Internet: India's digital journey and her global role', 'Equity access and quality: high speed Internet for all', 'Cyber norms and cyber ethics in Internet governance'. We have a multi-stakeholder coordination group and within that we have various committees who actually come up with what we want to discuss and how we want to proceed and then we go through it. The meeting was more of an online meeting and while we had many takeaways, I'll just briefly take you through some of them. For many who are in the room, you would understand that some have also been implemented.

For example, 'Shaping the Internet for the future through policies, regulation standards, rights and responsibilities' was one of the takeaways for the first sub-theme. "Strengthen and institutionalise the multi-stakeholder model of Internet governance by promoting open, free, safe, trusted and accountable Internet," which most of the world is talking about, we were also speaking about it so that we can promote a more open, trusted, safe and accountable Internet. Also discussed was 'the critical role which the India IGF can play as an open platform to discuss and define the norms of governance for social and economic development', where discourses can happen and which can actually permeate to all the decision makers to take into cognizance what the people feel.

Promoting multilingual Internet not only on the websites of the government but also requesting the government to ensure compliance on multilingual languages and products by certifications by STQC like organisations, promoting voice based multilingual Internet because not everyone can read and write in the same way a native English-speaking person can, was a key takeaway. We need to have voice-based systems also which I think the government is also implementing. Reduce the barriers for distant learning, blending learning so that the visual audio cost can come down, promoting digital literacy skills, reducing gender discrimination and reducing cultural barriers was called for. And do note that this was at the backdrop of the Covid-19 just ending, so there was a focus more on online education. Addressing the gaps in the universal acceptance, international domain names etc. and encouraging developers to use more UA compliant software. Also auditing the government apps, websites etc. to promote UA accountability because we do believe that practice what you preach is important. To a certain extent, a lot of this has been implemented.

Access and inclusion was also something which was felt to be necessary, which still is, for example, eliminating barriers so that there is more inclusivity and meaningful engagement, engaging people especially from the disabled organisations in policy making, empowering women, encouraging entrepreneurs, standardising policies and technologies for accessibility, trying to have more DNS resolvers in India so that meaningful connectivity can improve in the country; having more Internet exchange points at the state levels which is being done and having IPv6 backhauls so that there could be more high speed Internet for the users.

Another key takeaway was having platforms take more accountability. India is trying to take more active participation in the global decision-making fora so that we can also say what our needs are.

We have pretty much the largest Internet population in the world and our needs need to be addressed. Focus on skill and capacity building and having an independent regulatory data protection body which has come actually now in our bill. Then we had cybersecurity – having more legislations, making cyber security a part of business operations, ensuring that technology is neutral and organisations evolve ethical standards, focus on embedding cyber security in various aspects, need for a cyber security regulator and enhancing cyber awareness at grassroot level.

And then came IGF 2022 which we had from 9th to 11th December last year. It was in hybrid mode. The theme was 'Leveraging techade for empowering Bharat'. We had five sub-themes: 'Fostering Digital Innovation towards economic progress, 'Public Digital Platforms', 'Reaching the unreached', 'Building Trust, Resilience, Safety & Security' and 'Internet Regulation'. When we were looking in the discourses of digital innovation towards economic progress, it was recognised that there are five pillars of the digital economy – Digital Infrastructure spanning the Government and Private sectors; Reliable and Interoperable Digital Public Platforms; Digital Financial Services; Digital Skills; and an Enabling Environment that promotes Trust. The necessity for capacity building, opportunities and skill building across the country was felt. Promoting local level languages and easy to use interfaces, and reducing entry barriers so that we can be more inclusive and overcoming geographic, financial gender divides. When we spoke about the public digital platforms, it was felt more necessary to share more about India's success stories in CoWin, MOSIP, UPI, RuPay etc., and also recognize non-traditional forms of exports through DPI, promote more creative options using native language speakers for translation services through smartphone apps rather than in-house translators or automatic translators. In terms of reaching the unreached, key takeaways were ensuring high speed broadband access, encouraging different technology options for last mile connectivity, promoting meaningful connectivity, reducing the gender parity and connectivity divides in device bandwidth institution and social; trying to look at the urban-rural tele-density gap and trying to address this as well as the gender digital divide; improve connectivity and accessibility for devices for people with disabilities, even assessing the utilisation of the existing USO fund development to address the gaps and leakages, if any, and popularising the IDNs, local language scripts etc.

Then we had Building Trust, Resilience, Safety & Security where it was felt that Indian Internet should be: An Open, Safe, Trusted and Accountable Internet, which even the government has been propounding. Social Media needs to balance their power with accountability, the government should create a cyber stack that both start-ups and existing companies can comply with for better security, adopting a multi-stakeholder consultative process when it comes to cyber security, encouraging secure technologies, any technologies such as end to end encryption etc., because it builds up more security and trustworthiness. Capacity building was something felt very essential for cyber security experts, law enforcement officials and all stakeholders and global benchmark standards into domestic policy level frameworks should be integrated.

The last part was Internet regulation where it was felt that regulations should be tech-neutral and forward looking, adopt a principle-based regulatory network framework which is agile, nimble and resilient to changes in technologies, business models etc. Before drafting any regulation, a more comprehensive study should be undertaken for identifying if there is any unintended harm that may be caused by the proposed regulation and obviously balancing safety and platform freedoms

through careful interventions. And again, participation of Indians in standard setting processes was something which was felt to be necessary. These are in brief what was discussed in the last two years and some of the key takeaways but we would have more discussions now.

8. Ms. Sarah Kemp, Vice President, International Government Affairs, Intel

It is a true privilege to be here today to share this platform with such a distinguished group of panellists and I really want to thank both the IIGF leadership for convening us. I want to thank the Indian government for all their leadership and I want to congratulate each and every one of you for the critical conversations that are going to take place. I want to talk to you about transformation. The transformation that is happening and the exciting transformation that is happening particularly in India powered by trust. The role of technology plays an important key part of our lives and it is changing rapidly. Our world is becoming increasingly digital and the need for digital trust is paramount. Intel's corporate purpose is to create world changing technology that improves the life of every single person on the planet. We believe in a threefold approach towards creating holistic digital readiness which encompasses skills, trust and the ability of people to use emerging technology responsibly and effectively for broader social economic benefits.

The first approach to build digital skills – increased digitalisation – requires investment in the digital readiness of people especially in the emerging and the critical technologies like artificial intelligence, cyber security and semicon. This will allow for countries to remain competitive in the global economy. AI is a superpower and democratising AI skills is a key priority for both Intel and governments worldwide. Our efforts are to expand AI readiness and focus on enabling communities and people at a grassroot level.

The second part of this approach focuses on addressing a growing demand for individuals and organisations to navigate the digital realm safely and responsibly. We equip learners of all backgrounds with essential knowledge, skills and tools to interact in an ever-evolving digital landscape with confidence. Earning digital trust is a shared responsibility of industry, governments and civil society and an imperative piece to make technology inclusive and expand digital readiness for all.

The third approach is to focus on responsibility by enabling individuals with the knowledge to meaningfully navigate the digital revolution, leverage emerging tech and become aware of their responsibilities and bold solutions with social impact. Digital trust is imperative for collaborating and accelerating India's digital agenda inclusively and sustainably.

The World Economic Forum's digital trust report entitled 'Earning digital trust decision-making for trustworthy technology' presents a view of what digital trust requires and how to make decisions regarding the development or deployment of new technologies and digital services.

The ever-increasing scale, scope and sophistication of cyber security challenges, changing global supply chains and geo politics requires governments and industries to evolve to a higher approach towards digital trust, specifically one that includes cross-sector coordination. Our objective is to promote trust in technology by enabling governments, business and individuals to secure their

data, networks and infrastructure. To accomplish this goal, we encourage governments to focus on non-partisan approaches to security that will foster innovation and economic growth. This enables policies that are scalable and flexible enough to address the evolving security landscape by focusing on robust transparent solutions. Digital trust goes beyond cyber security and addresses the broader skills needed to build an understanding of risk, resilience and responsibility. These three pillars have become key guiding points for any country, company or organisation that wants to build digital trust among its beneficiaries. In fact, in the United States we have recently introduced a program, Digital Trust for All, at the Miami-Dade College. This programme focuses on cyber security, digital ethics and responsible online behaviour covering a wider range of topics and equipping learners of all backgrounds with essential knowledge, skills and tools to interact in an ever-evolving digital landscape with confidence. We'd be happy to explore bringing this opportunity to India and working with the government's kind support.

I'd like to compliment the government of India for its Digital India initiative which has become a benchmark for the world, whether it is empowering citizens with a unique identity and a digital platform to authenticate anytime anywhere as Aadhar or using citizen verification and registration for good governance as the UPI system in India is home to millions of users of the Internet and devices that presents both enormous challenges and opportunities in this dynamic environment. For growing India's digital ecosystem inclusively and sustainably, prioritising digital trust is critical. Otherwise, it could directly impact the growth of digital initiatives. Today presents one such opportunity. To navigate this transformation responsibly aspiring towards a future that fosters equitable economic progress and high-quality employment, the moment is on all of us to act.

I would like to again take this opportunity to thank the National Internet Exchange India, the Ministry of Electronics and IT, Government of India and the organisers of India Internet Governance Forum. Let me end by leaving you with this quote which inspires all of us at Intel: 'Don't be encumbered by history, go off and do something wonderful'. And with that I wish you all a successful productive conference. Thank you.

9. Shri. S. Krishnan, Secretary, Ministry of Electronics & Information Technology, Government of India

It gives me great pleasure to be with you on this occasion of the third edition of the India Internet Governance Forum. Clearly with the digital economy and the Internet economy becoming more and more significant in India, and so many Indians joining the digital economy in the past decade or so, we are at a crucial juncture and a critical juncture and that is the importance of this particular event. And the theme for IIGF 2023 this year which is 'Moving forward calibrating Bharat's digital agenda and leadership for global digital governance and cooperation' is well fitting which reflects both where the current state of play lies and also the aspirations that India as a country has.

Clearly, many people have pointed out that where the digital economy stands today in terms of all the emerging technologies that await us is possibly a historic moment of inflection. It is an inflection point in history not very dissimilar to what the industrial revolution did for the 19th century world. In that situation, we have the distinct possibility of riding that wave of innovation, riding that wave of

enhanced productivity and growth and making it work for a large majority of our people if we harness the inclusiveness and possible impact that the Internet can have on society at large. So, it is very important that not only is the Internet inclusive, and that is how the digital economy also becomes inclusive, it is also important that we contain the possible harms that can emanate from the Internet and we harness its force for good. And that is really what the Ministry of Electronics and Information Technology through its multiple attempts is attempting to do based on the kind of direction that we receive from the Honourable Prime Minister in terms of what has been laid out for us in the G20 leaders declaration, which event took place in these very premises. The declarations that have come out of that and the manner in which we focus on using the digital technology advances that we have made and we focus on taking a leadership position for the global south in advancing a development agenda through the digital technology advances is really where we are at present. This is something which as the government we want to focus on and this is something where we want to carry along multiple stakeholders and IIGF in that sense is a very ideal and appropriate forum where multiple stakeholders come together.

At present, our current mechanisms for Internet governance certainly appear inadequate. The gaps between the technological leaps that have been made and the regulatory frameworks that exist are showing up. There are bound to be larger and larger regulatory challenges which are coming in. The government is doing its best through both the DPDP act which has been notified and where the rules are about to be notified and the Digital India Act which is currently in the works and in the next few months should be brought out as well. All of these are the efforts of the Government of India to attempt to cover the gap between where technology has taken us and where regulation needs to be in order to derive the best possible benefits.

I have been reading recently that where we failed in regulation with the social media which is leading to so many other issues in today's world is an area where we should not fail by the time we come into artificial intelligence and various other crucial technological developments that come. And this is the time when multiple stakeholders sit together in fora such as this and come to a common understanding of where we need to take this particular space. As Internet's influence continues to grow and particularly with more than 500 million additional users from India alone, ensuring equitable and non-discriminatory access to the Internet becomes paramount. It is in response to this that we have launched various initiatives to extend Internet access to non-English speaking Indians through the introduction of various Indian languages in the form of internationalised domain names. NIXI, India's country code top level domain manager has been entrusted with the delegation of the internationalised domain names exercise. They have internationalised dot Bharat in not just the Devanagari script but in 15 other Indian scripts covering 22 languages. This strategic move is part of the concrete effort that India is making at popularising IDNs across India. Notably India today has the distinction of having the highest number of country code top level domains in the world, not surprising for the most populous country in the world of course.

In this effort to advocate for a multilingual Internet, the Government of India is actively engaging with industry and the objective is to address the challenges hindering the widespread adoption of IDNs. Email address internationalisation and the availability of local language content and services and Internet are areas that we are focusing on. Artificial intelligence, the Indian attempt of

promoting Bhashini, which is a multi-language artificial intelligence effort, are all ways in which we are trying to make the Internet much more inclusive across India.

An important point was also made about how the Internet is available for differently abled people so that they are able to participate more effectively. Likewise, as the Internet becomes more ubiquitous and Internet crime and cyber-crime become more and more widespread, I think most of the victims of cyber-crime – even in this morning's newspaper it was reported that most of the victims of cyber-crime end up being older people. And therefore, there is a big gap. While the youth take to this very readily, I think there is a big gap in terms of digital awareness literacy and Internet awareness amongst the older people, so that is also an important group that as a country we need to cover in the days to come and that is an area we would be working with. We have a number of skilling programmes which the ministry currently runs both in MeitY and other Ministries and these need to reach the common people. This is almost like adult literacy which was made many years ago to make India a truly literate country. I think a special emphasis and an effort to not just skill the younger people in this country which is of course an ongoing effort, which is vital for growth and development, but as inclusion it is very vital that we skill common people at large, people who do not have access to the Internet today, the older people who have been left out of this, so that the digital revolution in India is truly inclusive. That is what we need to seriously attempt to make a completely inclusive agenda for the country and work towards it. We at the ministry have great expectations from the India Internet Governance Forum. We expect, as I already said, a place where multiple stakeholders come together to really discuss the challenges which the Internet is throwing up and we need to see how it becomes more inclusive, more widespread, better used for economic activity, for enhancing productivity.

Clearly all the emerging technologies that we speak of are ultimately going to be carried on the Internet and therefore its role becomes really important. Equally, we need to be very very conscious of the harm that it can produce and therefore we need to make it a trusted space, an inclusive space that people can trust and use. And protection from digital harm, protection from cyber fraud, protection from cyber-crime and various other user harms that it can produce is also a very important area. Where, as the name of this forum itself implies, it is the Internet governance forum, the governance aspects become very important, on the one hand balancing the innovation, balancing all the possibilities that the Internet brings while protecting the people who use it from the myriad harms that result to them.

We are extremely happy to be hosting this particular forum. On behalf of the Ministry here today, I once again welcome all of you for the deliberations of this forum. I thank all the international delegates who have joined us both virtually and in person, and we expect that this forum will lead to further outcomes which will help us at this point of inflection to address some of the crucial issues that this particular sector faces. Thank you very much for having me on this occasion.

10. Shri. Rajeev Chandrasekhar, Hon'ble Minister of State for Electronics and Information Technology, Government of India

Good morning and thank you for having me at this IIGF third edition. It is certainly a visible sign that multi-stakeholderism is maturing and gaining strength in India. I don't know how many of you are here in this audience but I certainly recall the times before 2021 where multi-stakeholderism was an issue that many people fought for so that we could have the diverse voices of people who are impacted by the Internet and the growth of the Internet be represented on a table as we talk about the future of the Internet. So, it was not many years ago that this was a dream and here we are, three years later, where this is gaining strength and going from strength to strength every year and certainly Amrita's summary of the last two editions of the IIGF tells us how much progress we have made.

India is, as Secretary Krishnan alluded to, is on the fast track of growth in the digital space. We are clearly today with 840-850 million Indians using the Internet, the largest connected democracy in the world and indeed the largest connected block of people on the global Internet because nobody is deluded to believe that the Chinese Internet is anything but a walled off island. So, certainly as far as the open Internet goes, India certainly and Indians certainly represent the largest block of users on the global Internet with 850 million. And that number is expected to touch by 2025-26, 1.2 to 1.3 billion Indians using the global Internet. And so, we can safely say today that we have some views about the Internet. That with 1.2 billion Indians going to use the Internet for their livelihoods, for their day-to-day activities, for education, for skilling, connecting with government, we can safely say that we certainly have a view, we certainly have a vision of what the future of the Internet should be and that multi-stakeholderism will be in a sense the cornerstone of how the future of the Internet will be shaped, policy-wise, regulation-wise, technology-wise.

I am extremely pleased and happy that the multi-stakeholderism that I fought for as an MP is firmly embedded in the way our government approaches policy making and indeed the way that the world will construct, architect, design the future of the Internet in the coming years in the decade that our honourable Prime Minister calls the techade, the India techade, the decade full of technological opportunities. Secretary Krishnan mentioned this and I certainly want to reiterate it. India is today one of those most exciting opportunity-rich environments for tech in general and tech in innovation on the Internet in particular. We have just come off an epic G20 presidency where amongst the many things that were discussed, as is discussed in a grouping of 20 countries, technology, the power of technology represented by the DPI – the digital public infrastructure – found not just mention but found significant attention by the countries of the G20 and countries of the global south. So, it is quite clear that the future of tech is no longer what we used to think about, let's say even four or five years ago, which is a group of companies or a collection of countries that in a sense had a monopoly – I am using that word carefully – towards the future of tech, but rather that in today and tomorrow's world, the future of tech will be led by a number countries, like-minded democracies, like minded communities and societies with shared values that will shape the future of the Internet.

On multi-stakeholderism, our government in the last three years, four years, five years on all things tech, have demonstrated a commitment to consultative policy making, consultative rule making that is unprecedented. Whether it is the Digital Personal Data Protection Bill, whether the IT rules, or indeed the future legislation that will supercede the IT Act, the Digital India Act, every one of these fundamental building blocks that will govern the Internet, that will regulate the Internet, that will protect consumers and enable innovation, is being constructed with multi-stakeholder participation and inputs and that is certainly something that is signature to this government and a big departure from what used to be in the past unilateral law making policy making that left people in the wake of such policies to scramble and deal with the confusion and chaos.

Being the largest connected democracy and indeed the largest grouping on the global Internet, I would argue today and I saw what Amritaji put out in terms of the last two IIGF proceedings, I will certainly testify to that all of those proceedings and all of those conversations have left an indelible mark on not just our government but on the governments around the world in terms of how they are approaching the future of the Internet, how words like safety and trust have crept into lexicon, how accountability of platforms is becoming the new normal. We are departing from the construct, with apologies to Sarah, about shared responsibilities and diffused concepts of responsible use and ethical use and moving to a model where there is safety and trust for the consumers of this tech, and the platforms that deliver those services and products online on the global Internet are held accountable legally for the safety and trust. And that the fundamental nature of the Internet, openness, that has been challenged by the big tech companies of our times is also now increasingly becoming an issue that people are recognizing and dealing with.

So, on one hand while we have talked for several years ICANN, IETF, IANA, and talked about the technical standards that underpin the global Internet, as I think Secretary Krishnan has mentioned, we have taken our eyes off the ball, governments around the world, about regulating innovation, regulating the platforms that straddled the Internet that provide access to the Internet. So we have here today a world that is dealing with increasingly with the complexity, the size, the commercial power, the toxicity, the harms, that have now crept on to the Internet because we have allowed innovation to go so far ahead and not really regulated or created guard rails for the innovation that we have to deal now as governments, especially in democratic governments, with all of the fallouts of this type of gallop that has happened far ahead of the guard rails that needed to be there.

Our government, taking a cue from last year's IIGF, is very heavily committed to it and the world in a sense is aligning to this, these guardrails of openness, safety and trust and accountability of the Internet for our digital nagariks. And to tell you how the world is aligning to this, and I am not saying that India will take the credit for it, but certainly forums like this create the discourse and the awareness that is required. I recently attended an AI safety summit in Bletchley Park in the UK, where the focus is now squarely on the issue of safety as much as it was on the issue of innovation.

So, safety and trust as an obligation cast on platforms is a framework that our government has been developing since 2021 and as Secretary Krishnan mentioned, we will continue to fine tune this and there is nothing that is going to be this collegial best effort self-regulatory framework that we have seen for so long. But instead, we are now transitioning into an era where governments have an obligation to ensure that the Internet is safe and trusted for all those 1.2 billion, especially

in India, for their safety and trust, and the same thought process is now creeping to other governments and other democracies as well. It really does not matter if you are not a democracy. If you are not a democracy and you are an authoritarian government, you certainly do not worry about guardrails, all you need to do is dial your closest secret service or closest police and they will take care of it. But we are a democracy and many of the largest countries, many of the largest innovation economies in the world are democracies and therefore these guardrails are certainly very, very important.

And that conversation I think we have down the road on the 12th to 14th (December 2023); the Ministry and the Government of India are hosting the GPAI, the Global Partnership for AI. As Secretary Krishnan mentioned, if you just take the problems that we have inherited from the gallop of innovation especially in social media and other digital platforms in the last 5-7 years, and extrapolate that into the AI world, where everything is amplified by a factor of I don't know a thousand, ten thousand or a million, the good will also amplify, the power of empowerment will also amplify, but imagine the underlying harms also amplifying. And as the honourable PM recently pointed out, and put the spotlight on deepfakes, which is certainly misinformation powered by AI, these are all challenges that we will have to now immediately square up to and not let it get ahead of us so far ahead that regulation is playing catch up.

So I think certainly in these conversations as we talk about standards in IETF and talk about the underlying technology standards, of the Internet and the growth and the resilience and latency of the Indian Internet and those arguments will continue to happen between ICANN and sovereign countries like India that we certainly believe with the largest grouping on the global Internet that we need root servers in India, we need our latency and our resilience to be also firmly on the table of issues that global organisations like ICANN look at, because that is certainly something that we owe to our consumers. And as I said, the digital economy in India which will be a trillion-dollar economy by 2026, depends largely significantly on the underlying Internet, the resilience of the Internet and the latency and the performance of the underlying Internet. So, I think while the technical standards part will continue to be discussed and discovered and modulated and improved and enhanced, there is certainly a need for the IIGF to look at, the multi-stakeholder community to look at issues of safety and trust, the issues of legal accountability, look at big commercial platforms and on the Internet that are beginning to distort consumer choice.

Looking at some of these very fundamental issues that have escaped the scrutiny that it deserved over the last few years. I will quickly end by sharing with you an example of seminar that I attended in Delhi, one of those highbrow seminars where somebody was discussing technology and an audience member who was European stood up and said 'it is all great about talking about technology and digital India and you know you are growing your digital economy but about inclusion?' Because that is the myth of technology that technology is exclusionary, that the rich get it and the poor don't, the haves move faster and the have-nots suffer. And I said that India is a classic case-study where technology has been used for inclusion. And at the heart and soul of our inclusion of PM Narendra Modi ji's transformation of the lives of Indian citizens is the idea of the DPI. DPI is technology embedded in the Internet that has created inclusion, connectivity between citizen and government, trust between citizen and government in a manner that is unprecedented in the history of India. So, I told the gentleman who was obviously from some think-tank, I said if

you want where technology enables and where technology includes people, this is the place to visit, this is the case study to study.

I will certainly end by saying that is the journey we want to continue on, we want the emerging technologies of AI to play the same role of inclusion and empowerment, creating more with less, allowing every young Indian to be empowered and be part of the innovation economy, but at the same time ensuring that all consumers and digital nagriks have access to a safe and trusted Internet, have access to an Internet which remains open and have access to an Internet where the intermediaries, the platforms, are accountable for their conduct, accountable for harm under the law. I will leave it at that and thank you again for inviting me and I wish the conference success and many successful conversations and discourses. Thank you. Jai Hind.

11. Shri. T.V. Ramachandran, President, BIF, and Vice Chair, Coordination Committee, IIGF

It is indeed a most pleasant duty to propose a formal vote of thanks. I will take the liberty to make one or two remarks. Ladies and gentlemen, my first statement is that having been part of this journey from 2021, when we set up IIGF, it has been a most exciting journey. And right from the beginning, our visionary respected Chief Guest honourable Minister Sri Rajeev Chandrasekhar has been a great champion of this movement, of this initiative, supported us and kept on stressing that it has to be a multi-stakeholder activity and that is what has been pushing us forward with more and more enthusiasm. I would like to say that the theme of this year is also very significant. What are we saying in the theme – moving forward calibrating Bharat's digital agenda - we are not just moving forward. As a later session would tell you, we are accelerating forward, we are not moving just normally, we are accelerating and we are bent on getting to a very high connectivity domain of at least a billion, we talked of 800-900 million broadband connections. No, that is passe. We are going on to one billion. We will move forward strongly and with confidence. And not just like that. As the respected minister pointed out, we have to do it the right way. And the most important is, have an open Internet, a really open Internet, a trusted Internet, a secure Internet. I am very proud to state that today, even as per the exacting norms of the IRI Internet resilience index, and even despite the huge challenges before the subcontinent, this is not a country, we are a big sub-continent, we've got a population of 1.4 billion, the diversity, the challenges are enormous. Despite all that, we have scored a global high on net security. So, we are very proud of that and we will go even further, rise to even higher and higher orbits.

It is my most pleasant duty to propose this vote of thanks on this occasion, which is the third conference of the IIGF. In this inaugural session, this time it is a one-day event, in this inaugural session we have already taken a giant step forward. You have heard the brilliant statements of the Chief guest, the honourable Secretary, the honourable Joint Secretary, Madam Sarah Kemp and all the other distinguished speakers, the way they are charting the way forward. And I would at this stage, assure Sarah, she talked about don't be burdened by the past, by the history, go with confidence, go forward. I will go even a little more. We have absolutely no quarrel with the past, we are tremendously confident and we are going to go there. And that is what John Kennedy also said in one of the talks. So, we will go forward with confidence ensuring full trust and resilience in

the Internet, because that is paramount and one of the highest agenda points in the IIGF coordination committee. We have got a great multi-stakeholder committee and we have been inspired by the motivation which the ministry has been giving us right from word go. At this stage, we would also like to mention that we are talking about inclusivity with the Honourable Minister. The Honourable Secretary pointed out that inclusivity is a passion with us. Whether it is diversity, haves and have-nots, disabilities, they are all a passion. For example, in this inaugural you can notice that we have got 100% diversity norms satisfied. 50% or more of the speakers are ladies, so a big hand for that. Not only that, we have for example, it is not just words, in this country we have got a department for empowerment of persons with disabilities, we have a regulator who does ICT for disabled persons and even in the BBF, we have a high-level specialist committee to look at ICT for inclusivity for persons with disabilities. So, inclusivity is a mantra with us. And we will go on to the digital frontier ensuring, sir, that we will not leave anyone behind. We believe that to go forward expeditiously we all need to work together, we are together and we will continue to do that with full speed and gusto. Thank you.

4. Panel Discussions

a. Panel 1: Building a secure, trusted and resilient cyberspace for Bharat

Moderator: Mr. Saikat Dutta, Founder & CEO, DeepStrat

Online Moderator: Mr. Gangesh Varma, Saraf and Partners

Panellists:

1. **Dr. Sanjay Bahl,** DG CERT- IN
2. **Ms. N.S. Nappinai,** Advocate, Supreme Court & Founder, Cyber Saathi
3. **Mr. Rahul Kant Sahu,** DGM, i4C, CIS, MHA
4. **Mr. Alok Gupta,** Founder & CEO, Pyramid Cyber Security & Forensic

Summary: This panel provided a comprehensive overview of the current state of cybersecurity, the challenges faced, and collaborative initiatives, among other things. The speakers emphasised the need for continuous awareness, training, and international cooperation to address evolving cyber threats.

Mr. Saikat Dutta welcomed panellists from diverse organisations. He underscored the critical importance of a trusted and safe Internet, emphasising the need to address cyber threats and fortify the global cybersecurity posture. He said that cyber security was at different levels, at the device level, at the enterprise level where he cited the example of a midsize company hit by a threat and it was only because some mitigation measures had been taken that the business did not come to a complete standstill overnight; as well as national and international level.

Dr. Sanjay Bahl initiated the discussion by emphasising the significance of cyber hygiene, citing a 15% increase in reported crimes due to good hygiene practices. He highlighted the Uttarakhand example and discussed the challenges faced by MSMEs, stressing the need for a skilled IT

workforce. Since the MSME do not function in isolation, they spread the infection. He said that in a year since CERT-In's directions went into force, India's cybersecurity had seen positive changes. He commended the Cyber Swachata Kendra Malware Centre, showcasing a 31% decrease in infections over the last two years in the 600 organisations that had been onboarded. This was a citizen centric project they had embarked on to help citizens clean up their digital devices. No other country in the world provided free tools in this manner, and over 94% of the digital population was being covered, he said. Overall, there had been a major upswing in safer systems, less BOTNET attacks and websites were much safer than they were earlier. This had produced a safer business environment for all Indians.

Ms N.S. Nappinai shared her experiences, tracing the evolution from distrust in cybersecurity reporting to the current era of increased trust and compliance. Earlier there was a laxity in reporting, often because there was not enough confidence in the purpose of the reporting and what one small compliance would mean in terms of the larger picture. Currently, there is more trust in the system in terms of sharing about incidents and also trust in the system that sharing would result in some developments beneficial to the domain as well as greater confidence in how they are approaching the process. She said that we are likely to see how digital infrastructure and laws are going to evolve as it is being seen globally. The IT Act in India and the forthcoming Digital India Act as well as the DPDP Bill are indicative of the various legislation currently available. She said she looked forward to laws and regulations that were actively enabling and not just on paper.

Mr Rahul Kant Sahu, discussed the challenges of accountability and trust-building. With 850 million users in cyberspace, he emphasised the need for awareness programs and the creation of reporting portals. He detailed the process of initiating and investigating cyber-crimes, highlighting ongoing training programs and threat analysis. The Indian cyber crime coordination centre i4C of the Ministry of Home Affairs of the Government of India had been established with seven verticals, one of which was the National Crime Reporting Portal (NCRP), for citizens to register their complaints against cyber frauds. He also mentioned the role of the National Cybercrime Forensic Laboratory (NCFL).

Mr Alok Gupta shared insights into current threats, focusing on Zero Trust Architecture and ethical Internet use. He said that the most dreadful thing for the corporates today were the ransomware attacks, zero days and fully undetectable malware (FUD). He discussed the principles of the zero-trust strategy where nobody was trusted and identification and authentication were essential. Zero trust required encryption, and multifactor authentication. The consensus highlighted challenges in implementing zero trust architecture, underscoring the need for collaborative efforts and the Cyber Swachata initiative.

There was agreement among the panellists that the human user was always the biggest weakness. Saikat said that there was a new thinking that it was not right to treat humans as the weak point as they are the centre of all usage. Hence, the question was whether humans should continue to be looked upon as the weakest point or should it be said that whatever is designed has to keep in mind that the human is the ultimate user. He would look at it differently and treat users, devices and services on the same path. Zero trust was about least privileges to be available to access an architecture, otherwise the security would be compromised.

Sanjay Bahl said that collaborations helped a lot. Saying that website defacements had come down significantly, he said there were 177 empanelled auditors and 86% of the audits were being done for websites, indicating that people have understood that the first experience for a user on their platform should not be that it is defaced and inaccessible. Cyber Swachata was a prominent example of government, industry, academia, and ISPs working together. He said that Guidelines for security practices for government entities for a safe and trusted Internet had also been recently issued, which could also be used by industry.

Nappinai referred to the *de minimis* rule so the law will not take note of triviality. This was the problem of what is to be considered trivial. For a farmer, loss of ₹1000 would not be trivial. For someone who may not have the wherewithal, a small sum lost through a phishing or a financial fraud attack is substantial. So it was not only about having laws but how they actually work. Mentioning the Jamtara case, she called for effective enforcement saying that criminals were finding phishing and financial frauds easier to get away with than, for example, drugs. She emphasised that it had to be shown by example how such criminals could be apprehended so that there is realisation that this is not an easy way to make money. She also spoke about Bharatiya Nyaya Samhita that is expected to replace the Indian Penal Code (IPC) which also incorporates cybercrime. In that, the definition of organised crime would include cybercrime which gave hope that it would help against larger groups coming together and committing crimes instead of their being looked at as individual crimes just below a defined threshold.

Giving the example of Haryana, Saikat said that a tremendous movement was seen when the state wanted to do something. Sanjay said that the challenges faced from the states were mainly due to lack of trained manpower for which seven cyber coordination teams all over India had been organised and their job at i4C was coordination.

The discussion also touched upon network security, data security, and the role of auditors in maintaining a secure digital environment. Sanjay said that with the threat landscape evolving, organisations and auditors had to keep themselves abreast. Alok said humans were the weakest link, and that many people, including educated ones, fell victim to cybercrime because of greed. Even the technically qualified fell victim, especially to cryptocurrency related frauds. Another problem was the lack of awareness; with a billion users, the number that were aware of the ethical use of the Internet, its dangers and perils, were relatively few. There was also need for vigilance. Saikat said that in addition to greed, today there was a fear factor.

During the interactive segment of the session, a series of insightful questions were put to the panellists.

Anupam Agarwal from ICANN raised a query regarding the potential shift towards a continuous compliance environment. In response, Sanjay acknowledged that entities had already initiated steps towards continuous compliance, reflecting the evolving nature of cybersecurity measures.

A participant wanted to know about the usage of M-kawach on mobile devices. Sanjay emphasised the necessity of employing multiple mechanisms due to language barriers and varying levels of awareness across different strata of society. He highlighted the effectiveness of using diverse

mediums such as posters, audio and visuals to communicate cybersecurity policies and sectoral guidelines.

The discussion extended to the realm of artificial intelligence (AI) and disinformation, acknowledging AI as a double-edged sword wielded by both malicious and benevolent actors. Sanjay delved into the complexities of threat management, the potential impact of quantum computing, and the risks associated with large language modules. He underscored the importance of a zero-trust approach as a solution, emphasising that awareness of cyber threats played a pivotal role in addressing the challenges posed by evolving technologies.

b. Panel 2: Enabling Innovation for India's Developmental Goals

Moderator: Ms. Surabhi Agarwal, Economic Times

Online Moderator: Mr. Kazim Rizvi, The Dialogue

Panellists:

1. **Dr. Rajat Kathuria**, Dean, School of Humanities and Social Sciences, Professor, Economics, Shiv Nadar University
2. **Mr. Rahul Matthan**, Partner, Trilegal
3. **Mr. Sunil Abraham**, Public Policy Director, Data Economy and Emerging Tech, Meta
4. **Dr. Dipendra Manocha**, Director, Developing Countries, DAISY Consortium

Summary

This panel discussion explored the role of innovation in addressing India's pressing challenges and achieving its sustainable development goals. The panellists discussed the importance of fostering an innovation-driven ecosystem, the role of technology in driving innovation, the need for collaboration between government, academia, and industry, the challenges of financing innovation and of creating a culture of risk-taking and experimentation. They concluded that innovation is a key driver of economic growth, social progress, and sustainable development.

Mr. Kazim Rizvi introduced and welcomed the panellists. **Ms. Surabhi Agarwal** began the session stating that India was working towards a USD five trillion economy with technology playing a vital role and that it was necessary to look at a more inclusive growth. Saying that at most events, discussions were about DPI and software prowess, she asked Dr Manocha's perspective on what needed to be done in the future.

Dr. Dipendra Manocha said that India was doing extremely well among the low- and middle-income countries which is where India was classed, in terms of the use of technology. Infrastructure for people with disabilities (PwD) was comparable to that of high income group countries, where the use of simple digital tools such as smartphones and computers enabled persons with blindness to read and write in the script that the rest of the world was using so that they were not limited to

braille. He referred to the online Sugamya Pustakalaya, a library with materials in accessible format that connects directly to devices in the hands of users. The screen reading technology worked in sixteen of the Indian languages. Such facilities were found in high income countries but India was one of the few developing economies having this. He said that these were intermediate solutions and the real answer lay in inclusive design. India was developing a robust policy and referred to IS 17802 which defined accessible ICT. He said that persons with disabilities included not only those defined by law but also with functional limitations.

Mr. Sunil Abraham was requested to talk about the efforts made by large companies such as Meta in this direction. Sunil said that 95% of people would face some disability in life as they grew older and hence the accessibility technology built for those defined as disabled would be useful for many. There was an excellent legal framework in India, not seen in many other countries. For example, a year before the countries of the world negotiated the Marrakesh treaty (2013), India had amended the copyright law and made the exceptions disability neutral, and work neutral. In contrast, the Marrakesh treaty established a global exception to copyright for the disabled that was both work-specific and disability-specific. He felt that the inclusivity part was often an afterthought partly because the technological stack was not mature enough and went on to explain Meta's open-source project React Native. He said that accessibility was built into the capacities of React Native and rather than building support for W3C standards like WCAG, the app would become automatically compliant to these standards, making it default behaviour of apps and developer frameworks being released. He said that Meta had released 650 open source or open innovation AI models, many useful in the disability context and outside as well. He then went on to describe what could be achieved with the AI tool chain to enable an illiterate person in Karnataka wanting to read the works of Premchand listen to a translation from Hindi to Kannada being read out in a famous cine-actor's voice would break the language and literacy barrier bringing the world of knowledge and the world of Indian culture and diversity to individual users; and that, he believed, was the exciting world of the future.

Surabhi referred to the problem of technology tools not being available to people who are not very well versed in English or Hindi, with the interface not being available in the local language. As an expert in law, she wondered if Mr. Rahul Matthan could throw light on whether there was a way to hardline some of these considerations so that they did not become an afterthought.

Mr Rahul Matthan said that the most recent version of the data protection law had taken a step remarkable for India, which was the privacy policy. The consent and notice framework which was going to be the cornerstone of all interaction required that when it comes to personal data, the request must be provided in each of the languages of the eighth Schedule. While this was a legal obligation, having it read out in the vernacular in a famous person's voice would definitely get more people to accept privacy policies. He pointed out that there are two prongs coming together at the same time, one being the legal obligation and the second, the technical capability to make it easier. Interactions with technology had to be made such that it could be easily accessed by everyone. He cautioned that it could not be simply done with a fiat; the means to do it must also be provided.

The moderator next asked Dr. Rajat Kathuria what both governments and large home-grown companies could do regarding usage of technology for furthering India's developmental goals.

Dr. Rajat Kathuria said there was no doubt that technology would play a huge role in helping India grow into a large economy. He said that there were both well-known as well as relatively less known factors in play. For example, the way GDP was calculated, because of the price of technology and the price of new innovation going down, there was a potential to underestimate in current prices both quality and value of goods being provided. For example, what cost Rs. 50,000 ten years ago, now costs Rs 10,000, and with increased features; meaning that a better quality of product is available at a lower price. Few countries calculated GDP taking this into account. He expressed concern about the fact that we tend to hang on to things like 'technology has arrived and will solve all problems' and likened it to the microfinance initiatives that promised a lot but did not deliver. Technology was a double-edged sword, enabling inclusion but also causing exclusion. Hence it was necessary to be cautious about what technology can do. On the relationship between companies, markets and technology, he stressed that technology on its own, and through the markets will not help us address our development goals. Interventions by the government as well as non-governmental agencies are required. He mentioned that many of the achievements in India were being done by simple grassroot level organisations. He concluded saying that technology is a great thing but technology determinism is not. Along with government and markets, the third pillar, the community, will be needed to address the development goals.

Rahul agreed with the points made by Rajat and said that DPI was not the answer to everything. In terms of providing some guardrails to technology infrastructure, considering that technology infrastructure is largely built and made accessible to people by big tech companies, he cited messaging apps such as WhatsApp are essentially becoming the leading form of communication. There could be perverse objectives when infrastructure for things like financial services and healthcare was left in the hands of the private sector, because in many cases they are subject to commercial imperatives that they cannot escape from. If there existed digital infrastructure where regulators had governance control, on which citizens receive services, the same could be used by market players to innovatively provide services ; that could be the best of both worlds. He felt India's digital infrastructure was a way to achieve this, which is also the idea of his book, wherein we could potentially use this digital public infrastructure to balance out certain harms and achieve a more equitable access to this technology while allowing innovation. Offering governments a way to digitise in a way that allows them to regulate, and offering avenues for private innovation to continue to flourish would be the best solution. He said that it was necessary to ensure that techno utopianism and techno optimism did not sacrifice individual liberty, in what we believe is the greater techno utopian good.

Dipendra Manocha said that while technology could be considered an answer to everything, there was a rider in that one single technology is not the answer to everything. He shared some real-life stories about how students with blindness studying in Delhi NCR were able to pursue science and engineering. This was a change from when he, as a student, was forced to leave science and mathematics after class eight, having been told that he could not study those subjects. It was technology that had brought around change with devices that could be used to read and write. A device carried in his pocket could help him access any one of six million books that he could read with his eyes (visible on the screen), ears (audio) or fingers (braille), the last through a device attached to his smartphone that converted digital text into braille in real time. This technology had not yet reached out to all those in need because of affordability. But a special educator sitting in

Noida could reach out to students in remote areas because of connectivity and teach them essential skills. Technology had to be adapted and adopted to meet different requirements. A conservative figure based on the 2011 census indicated that there were 5.3 million persons with blindness in India. Numbers were likely to be higher in the case of print disability as persons, for example, with dyslexia are not included. The kind of outreach required is very high; the solutions being built are very encouraging but need to be used. He also emphasised that solutions to problems needed to be developed by the community; for example, the screen reader software had been developed by persons with blindness; they were not mere users and/or testers. Hence the community had to be empowered to develop solutions for themselves.

Sunil Abraham said that there were two ideas – that AI was going to replace humans and that AI was going to augment humans. Quoting Nandan Nilekani, he said that humans would never be replaced by AI but only augmented. Saying that it worked very well when applying the lens of disability, he shared how a colleague who was a PwD used screen reading software to read conference proceedings at three or five times the speed of a normal person. Hence it was a false assumption that PwD are less capable. He said that a bankable solution for literacy in a country was same language subtitling, especially for Indian film music which helped in learning to read. With the maturing of generative AI, same language subtitling could become an automatic feature. This was the kind of quantum leap being expected with AI. He felt that it was not fair to paint technology as a double-edged sword. He drew a distinction between open technologies and closed technologies as they worked differently. Further highlighting how embracing the open paradigm helped in reducing risks, he said that committing to this helped both government and big tech cooperate.

A question from the audience related to whether India was developing its own technology. Dipendra said that for a long time we [i.e. Indians] had been getting technology from outside that was not always apt or appropriate for us. Today, there are a number of start-ups in India working on various assistive solutions for India, many of which are original ideas. Rajat said that technology and innovations were not a homogenous entity but 75% of innovations were from the US because our investment in R&D was very low and was only now picking up. He said that India deals with an immense scale, recognizes what the local problems are and tries to solve them. He felt that technology was the only way to tide over our development problems. He gave the example of mobile banking which originated in Kenya which was taken up by India and built upon to develop the UPI. Rahul said that it was essential to invest in Indian science, and patient capital investment was essential. He said that there was a requirement for the state to think through the idea of making deeper and long-term investments in innovation without expecting immediate returns.

In response to a question on why the tech solutions available were not spreading at a scale comparable to the population, Sunil said that while technologies exist, more entrepreneurship is required to take these technologies to the last mile. Dipendra Manocha said that technology solutions were coming faster than the pace of adaptability of human beings. Giving an example of refreshable braille technologies which were very expensive because of the piezo-electric base, he said that between 2012-2018, four alternatives were mastered and converted into products and launched in India. But since the procurement policy could not adapt as fast, two solutions died and one was on the verge of dying.

On the question of ensuring that the technology we adopt is trusted and safe, keeping in mind the consumer perspective, Rajat said that what is needed by the market will be provided by the market but it has to be of scale. Some sort of regulation would have to be there to ensure safety. Sunil said that having users on the development team was good. But equally true was the fact that given advancements in self-supervised learning, a small team could come up with equally valid results.

Surabhi ended the panel discussion by repeating Rajat's quote of the economist Joan Robinson: "what is true in India at any point in time, the exact opposite is also true." She said that this was probably the reason why large companies were innovating so much in India, with their teams visiting various parts of India to identify problems and come up with solutions usable not only in India but also globally.

c. Panel 3: Bridging Divides

Moderator: Ms. Amrita Choudhury, Director, CCAOI

Online Moderator: Ms. Ishita Garg, NIXI

Panellists:

1. **Mr. Amitabh Nag, CEO,** BHASINI, MeitY
2. **Dr. Nirmita Narasimhan,** Programme Director, Saksham
3. **Brig. Anil Tandan, DG,** Broadband India Forum
4. **Ms. Akansha Sharma,** Programme Officer, ITU Area office Innovation Centre, India

Summary

The panel discussion on "Bridging Divides" explored the key challenges and opportunities in bridging the digital divide. The panellists discussed the following topics: the nature and extent of the digital divide, the impact of the digital divide on individuals and societies and strategies for bridging the digital divide. The panellists' contributions highlighted the importance of a multi-stakeholder approach to addressing this critical issue.

Ms Amrita Choudhury introduced the panellists and spoke about the various digital divides, especially when digital has become the norm, such as the inaccessibility of digital resources in some locations, men having more access than women to digital resources, and issues for persons with disabilities, exaggerated for women with disabilities, in access to digital resources. She then asked the panellists to offer some initial remarks on the topic.

Dr. Nirmita Narasimhan gave a personal example of how she herself uses a screen reader and has faced frustration while accessing content and technology online. She said that since the last IGF there had been quite a few good developments with a key point being that the government had made compliance with IS 17802 mandatory. She said that Saksham was running a campaign with

Meta to make social media accessible. With news and other important content on social media, it was essential for all to be able to access the content. She pointed out that while there is a constant inflow of technologies supporting persons with disabilities, the issues of affordability, availability and usability have to be addressed along with awareness of what is available in terms of standards, technologies and other things.

Mr. Amitabh Nag emphasised the importance of addressing the digital divide not only in terms of access to technology, but also in terms of the ability to use technology effectively. He highlighted the role of Bhashini, a MeitY initiative which looked at transcending the language divide as there was a need to enable collaboration and sharing without having to learn another person's language or a third language. The Bhashini mission began with a few fundamentals such as voice translation into text; text to text from one language to another; text to speech; optical character recognition which needs to be recognized as text and named entity recognition. These services were available in some of the 22 Indian languages. He spoke about the importance of developing digital content in local languages and the need to create an enabling environment for digital inclusion. With respect to the divide, he said that once it became possible to make the computer do through voice what was required in a multilingual format, the language divide would be bridged along with bridging of the digital divide and literacy divide.

Ms. Akansha Sharma spoke about the role of international organisations such as the ITU in bridging the digital divide. Their experience showed that a siloed approach would not work, rather the need was to take a holistic approach including society and government. She mentioned that the smart-villages smart-islands project about connecting remote areas, was being implemented in fifteen countries in the Asia-Pacific based on need. The connectivity had to be meaningful: affordable, accessible, safe and inclusive, and then, services could be rolled out on the back of the connectivity in terms of access to healthcare, e-agriculture, fintech based apps. She spoke about the importance of international cooperation in bridging the digital divide and said that people need to be trained to make use of the connectivity and hence the community needed to be involved to take ownership. The India office worked with many countries in the south Asia region but as an innovation centre, it is one of the first of its kind in the world. With India strong on innovation and entrepreneurship, ITU's innovation centre's mission was to serve as a global accelerator, work on co-creation of activities, projects and programmes to help other countries as well.

Brig. Anil Tandan said that a constant refrain from the many speakers was the 'digital divide' and its various aspects. He differentiated between speech connectivity and net connectivity, and said that the gap between rural and urban divide in terms of Internet access, had decreased in the last five years in India. The divide existed between and within countries and between men and women. A problem he highlighted was the feasibility of accessing every nook and corner with radio waves. Moving from 2G to 3G, 4G and 5G increased equipment costs and hence it was done by companies only after seeing their potential RoI. Today, a majority of the country was covered by 4G. But the next issue was affordability in terms of smartphones, as well as language and literacy.

The moderator asked each of the panellists for an actionable wish list. The following are key points made by each panellist.

Nirmita said that working towards inclusion had to be done right from the beginning. An action plan, not necessarily too ambitious, could be made so that the status at the beginning of the year could be taken stock of and at the end of the year, progress could be measured to understand what policies were effective on the ground. Inclusion in the curriculum in every domain was, for her, very important. A support system to transition from inaccessible development to accessible development such as compliance with standards or help when hitting a roadblock was her third point.

Amitabh said that it was necessary to ensure that technology created was used where it was supposed to be used, and transactions started in those technologies. They had built a platform, the national hub for language technology to render services and they were consuming those services to build up the applications such as the Bhashini app. He went on to demonstrate the way the app worked in language translation. He also demonstrated the use of their service number '08045163802' in transferring money and explained the journey using multiple language technologies: speech recognition, translation of text to speech, text to text translation, obtaining the number from the database, advising on the next step, transferring the amount and confirming the transaction. He said that it was important to get technology into everybody's day to day life to actually make the change and the technology should be implementable to that extent.

Amrita Choudhury appreciated the details provided and said that the country was doing many things where the technologies were not solely for an elite India, but for Bharat. These technologies could also be used by countries aspiring to grow, that are looking at India. She next asked Akansha about ITU's focus and plans for the future.

Akansha said that cooperation and collaboration were key for the future to bridge the digital divide as no one person, no one organisation alone could do it all. A multifaceted approach was required. It was necessary to look from the policy aspect as everything had to be complementary in nature for things to move forward. One had to be prepared for embracing innovation not just for now but for the future as well. Within the region, digital innovation was one of the key pillars of focus to work with the entire community. In terms of digital innovation policy, they have had discussions with the DST who were forthcoming in helping some of the new geographies that are early on in their innovation and entrepreneurship journey to build policies; and have co-creation programmes between India and other countries.

Amrita referred to ITU's discussions with their many working groups which asked for comments from the community while making plans. She wanted to know how they planned to make these more accessible to the Indian community and how IIGF could provide inputs.

Akansha responded that ITU was working on the important area of standardisation. In India, they worked with the Telecom Ministry which was their line ministry to bring some of these initiatives of the standardisation group to India. She said that at next year's WTSA, the standardisation assembly would be taking place in India, which was the first for any country in the Asia-Pacific. There was also an active involvement from the youth community members in some of the standardisation groups. However, more outreach was required to ensure that the standards and policies were inclusive in nature.

Amrita next asked Anil Tandan, the Director General of BIF, for thoughts on how the divide could be bridged from the connectivity aspect.

Anil Tandan said that the BIF was a technology agnostic think tank, and looked at all options for improving connectivity. He said that there were other means of connectivity such as low orbit satellites and that connectivity would have to be provided by a multitude of options. He spoke about the use of Universal Service Obligation funds for connecting people. In India, from 2011 onwards, the various forms of BharatNet had connected two lakh of the intended six lakh villages; further, they had a new project for connecting the remaining four lakh villages. They had been able to provide 7.67 lakh FTTH connections and over a lakh Wi-Fi hotspots. The last mile connectivity through PM WANI was not making the expected headway, he said and hoped that the government would give it a greater push to provide connectivity. He suggested that refurbished handsets, branded and certified, from urban areas could be made affordable for use in the rural areas. However, though two lakh villages had been connected, the exploitation of that had not taken place as there were no applications or services in the local language. Thus, having provided the connectivity, what it is going to be used for was something that had to be thought through.

In the question-answer session that followed, Dipendra Manocha requested Amitabh Nag to include the Indian sign language in the list of languages that they were working on to include those who were suffering from hearing disabilities. Amitabh Nag said that they had worked on it on the international sign language day, but their first task remained to complete the work in the 22 languages. He said that firstly, the question was whether collaboration was possible with an organisation working in the same domain area. Secondly, these were AI models requiring large amounts of data. For this, they had launched a crowdsourcing mechanism called *Bhashadaan* to which everyone could contribute to, and the data from that was used to train the models.

Shika asked if a roadmap had been planned for IIGF 2024. To this Amrita responded that it would, at this point in time, be difficult to give a roadmap. Based on the report of the workshop, the inputs from the coordination committee and the community, a roadmap would be generated as this was a community driven volunteer initiative.

Sameer said that the technologies that were earlier invented or used for bridging the divide were often kept aside and only emerging tech was being looked at. He wanted to know if earlier tech was being considered for bridging the divide. Amitabh Nag said that any technology was only an enabler or a catalyst and the focus had to be on how to solve the user's problem. He pointed at the need to collaborate and encourage those technologies to proliferate into the system so that people could use it and with increased usage, it was bound to get better. He asked end users to keep demanding more as technology had the power to service the demands made by users. He explained by repeating the example of money transfer but, this time, with two fewer steps for the user.

Anil said that there was always the fear that introduction of new technology could increase the divide. Nirmita said that if an organisation had included accessibility and usability in the design, then updates would also come out usable and accessible.

Michelle (online) wanted to know if PM WANI was a success model for rural and remote area Internet connectivity. Anil Tandan said that a single authentication allowed one to go from one hotspot to another but business cases were limited and they were trying to make it simpler.

On how Bhashini could be used by a start-up, Amitabh Nag said that Bhashini was available as an API on the platform and whoever was interested could write to them for details.

Next, Amrita Choudhury requested each panellist to summarise in a sentence what they felt.

Amitabh Nag said that we have embarked on a journey with different milestones and an end which will be visible. He said there was a need to collaborate and encourage end users to keep demanding more.

Akansha Sharma said that bridging the digital divide was a journey and a process; and that all our unique capabilities at different levels need to be leveraged to work together to bridge the divide.

Anil felt that for moving from 800 million to connecting 1.4 billion, a multitude of technologies would need to be used.

Amrita summarised the key points as cooperation, collaboration, being technology agnostic, allowing different kinds of technologies to connect people, and having the approach of inclusivity by design.

5. Valedictory Session: Calibrating Bharat's Digital Agenda and Leadership for Global Digital Governance & Cooperation

Moderator: **Ms. Amrita Choudhury, Director, CCAOI**

Speakers:

- **Ms. Astha Kapoor,** Aapti Institute
- **Mr. Ashwani Rana,** Chief Public Policy Officer, Zupee
- **Mr Shivnath Thukral,** Director & Head of India Public Policy, Meta
- **Mr. Anupam Agrawal,** PTI-Board, Chair – India Internet Foundation (IIFON)
- **Mr. Sushil Pal,** Joint Secretary, MeitY

Ms. Amrita Choudhury began the session saying that the Internet had become ubiquitous. She said that while it has been an enabler, because of the way the Internet was growing, there were regulatory challenges and governments around the world were making efforts to understand the issues.

A number of discussions were underway globally, such as the negotiations for the Global Digital Compact started by the UN Secretary General, and the Summit of the Future coming up in 2024, among others. Comments from open consultations were requested on various aspects such as access, AI and human rights. The negotiations would be based on a multilateral approach and decided upon within the UN ecosystem. While India's representatives in New York would be negotiating, these outcomes would affect most people at large. Hence, it was important for our views to be put forward so that the negotiators would take them into consideration. She further highlighted that until recently, the views of the global north were always predominant when such discussions took place. However, aspiring countries such as India, Brazil, and South Africa now have significant stakes. India, with probably the world's largest number of Internet users, has a huge stake, and rules framed by others might not suit us, she said. Similarly, the WSIS+20 negotiations, also in a multilateral format, would start at the end of next year, and its outcomes would also affect all of us. Hence it was necessary to ensure that the voices of all stakeholders were at the negotiation table, even if not directly present. There were other panels such as the Secretary General's panel on AI which was in the process of preparing a report, in very short timelines, raising concerns about it being pre-drafted. Since India is also working on AI which has various existing frameworks available, the question is how to make the processes more inclusive.

Amrita said that India has been endorsing the multistakeholder model which was also emphasised by the Minister during the inaugural session. But there were countries pushing for certain actions which raised concerns about fragmentation. She then put forward questions to be discussed during the session. The first question was on the role that India could play and the country's agenda for digital global governance. For the second question, she said that India had been the voice of the global majority at the recently concluded G20 which had brought out the New Delhi Declaration. In that context, she asked what was the role that India could play in these forthcoming negotiations or developments, and how could Indian stakeholders be encouraged to get into these mechanisms.

Ms. Astha Kapoor

As a research organisation based in India, Astha Kapoor said that their organisation had been talking about the voice of the global south, especially represented by India. She believed that India also had a lot to offer when it came to conversations on topics such as access, inclusion and rights. Often, it was felt that such conversations excluded civil society members. While comments were asked from the civil society, the question remained whether civil society participation was meaningful. She said that this could be an opportunity to identify certain similarities that went beyond the borders of our country.

Astha said that many experiences with technology, such as the kinds of vulnerabilities around AI and the role of platforms were shared globally and the civil society in India had been at the forefront of a lot of the global conversations. She said that the experiences of Think Twenty (T20) and Civil Society Twenty (C20) had given civil society space and the institutional framework to engage, enabling solidarity rather than fragmentation. She said that India was also doing some of the best research on some of these questions and hence, it was important to make sure that our work was visible on global public platforms, and that we took a leadership position.

Amrita said that Brazil was taking leadership in starting the NETmundial+10 for which the first brainstorming session was held early that morning. (NETmundial was created by Brazil when IANA was transitioning to ICANN). GDC and other processes were expected to be discussed there.

Mr Shivnath Thukral

Shivnath Thukral's first point about recalibrating Bharat's digital agenda was that India had created fundamental building-blocks. The second was the innovation ecosystem of which the companies were also part of. Digital Payments was the beginning and would lead to commerce, financial inclusion, unlocking of insurance, pension and other savings instruments. The costs of transaction and execution intermediaries would start going down as the financial sector revved up. The third was civil society engagement with the rest of the world. DPI had to inevitably go global and that was when Bharat's digital agenda would become a global agenda. This was also the point of view from the global south.

With the wheels in motion, the question was how to ensure control. The answer was through prudent regulations and oversight. In India, regulators were unusually risk-safe. Looking at the roll out of UPI, one could see how the existing regulators had allowed it to flourish without the system going crazy. He said that while there were serious concerns around safety, scams, frauds etc., the majority of the use was good and that technology led to more good than bad.

The third layer according to Shivnath was that it was necessary to go big and to go global. Export of DPI had to happen and it was necessary to force companies like Meta to say, 'give us these solutions in other markets as well', while the regulators sorted out the regulatory part of the DPI. He gave the example of Delhi metro where a ticket could be bought on WhatsApp because of the interoperability of UPI on the surface. While it was not the solution built for the metro, it worked because people found it easy to buy a ticket while entering the metro station without having to stand in a line or use a vending machine, and using the UPI most comfortable for them to pay because of interoperability.

Mr. Sushil Pal

Sushil Pal said that there are two infrastructures – the hardware which is the Internet on which everything rides, and the digital public infrastructure. The infrastructure on which everything rode was the most difficult to govern. The question was, when services were digitised, how they should be governed. This, he said, was a constant process as new technologies emerged. But since everything rode on this infrastructure (Internet), Internet governance included everything. Being the most technical area of governance, he said that more engagement of our country and more stakeholder involvement was essential. DPI was only the application-level play. It was called infrastructure because it was not designed to solve one problem. Interoperability in the payment was an infrastructure because it was not designed to solve one payment problem. The problem statement for the government of India was not how to get the retail investor to invest in the stock market. But the innovators that came brought their own solution ID and payment. There were a

huge number of use cases that had not been thought of. It was the people from the private sector who thought of these use cases. They came up with solutions to the problems the citizens were facing. All that the government had provided was to make the system interoperable. Financial inclusion, use of any service by authenticating, he said, were all application-level play.

Internet governance was the most difficult part because of the emergence of new technologies such as AI, IoT, blockchain etc. He said it was the government's endeavour to come up with solutions to cope with these challenges and to make sure that the Internet remained open, safe and secure and did not get fragmented. He said that there were many discussions going on such as the GDC and NETmondiale by Brazil which were healthy signs that governments were waking up to the dangers that technology could bring to the Internet and the need for regulation keeping in view risks such as deepfakes. It was a positive move and the discussions from the government's side would feed into the ICANN and the GSC; it would keep the multi-stakeholder model intact for that was what India believes in.

Sushil Pal said that India's digitization journey had been largely based on open source, open standards and open networks with a citizen centric approach. It was important to make sure that the user or the poorest or the unaware did not become captive to any platform, to any technology or to any OEM and cited examples like ONDC and OCEN. This DPI journey of open source - open standards had to be carried forward to the open network which would transform the way we did commerce, managed logistics and so on.

Calling for a clear national strategy for Internet governance, he said that when different groups went to the forums like ICANN, they did not talk the same language. He carried his government perspective, while others carried theirs. He said they would be calling on NIXI for regular working-level multi-stakeholder meetings so that soon, a very coherent integrated approach to Internet governance was prepared. He called for representation of our country in more technical forums like GMSO, SAC (security advisory committee) and the Standards. These could form barriers but could also be facilitators. It had to be ensured that standards in Internet governance evolved from the viewpoint of the global south and did not become barriers. He cited the example of web trust certification for which several standards had to be followed which was very expensive to the country. He suggested exploring enabling web trust certification to a country that did not have deep pockets to put all those systems in place. He felt that these issues should be focused upon by India.

Reiterating what was said earlier, he reaffirmed India's commitment to accessibility, security, resilience, innovation, affordability and accountability and also reaffirmed that India would continue to follow the multi-stakeholder model on Internet governance with expertise, experience and insights from all the communities.

Amrita said that India as a country had allowed innovation and that regulations had been such that innovators could innovate on what the government was building. It had to be a collaboration, she said, because if reined in too much, innovation would be lost which is a concern raised with Europe at times, that they are coming up with many rules. She agreed that having an India strategy for global stakeholder engagements was important. However, it was more important to have people

in the working groups in ICANN because policies are developed there. There were paid people doing it for companies. Most of the people who went were from GAC or volunteers, were not paid, but they also contributed.

Sushil agreed and said that it was necessary to spot that talent for specific roles that could be taken up. While qualified people were available, they had to be sensitised. It was necessary to identify the roles and identify committees in which representations could be made. He said that participation from the industry had to be far more than what it was today.

Amrita pointed out that countries like Brazil had a delegation of a hundred special young participants when they went to IGF and other fora. These people were groomed to participate, engage, and then later on, to contribute. In this way, a talent pool was being built and they were being pushed into the system. She called for at least 25-50 people going from India for such meetings.

Mr. Ashwani Rana

Ashwani Rana said that the first challenge was connectivity for which there were a few barriers. The problem of access was already surpassed with 3G, 4G and 5G and there was hardly a place without a network in India. The second challenge was affordability and globally India had among the cheapest data rates which addressed the issue of affordability. The third barrier was relevance. Especially after UPI, the relevance factor had sprung up and that was the reason for the Internet becoming so pervasive in India. The start-up ecosystem providing relevant services was the most important thing for people. This was one side of the spectrum.

Looking from the lens of India's aspiration of becoming a developed country by 2047, everything became important. It was important for people and stakeholders to understand the importance of strengthening the framework of IGF based on having a free and open Internet, inclusive multi-stakeholder model. Only then would there be momentum and resources for strengthening the process in India. It was important to create awareness about the importance of IGF principles.

The third point Ashwani made was that regulation should not be put ahead of innovation. That was where the national strategy would help. Taking an approach of fearfulness would strangle innovation and new services or products would not be produced. Development of a national strategy was not going to happen by wishful thinking. Strategies developed around data based studies and reports which gave clear direction to policy makers and bureaucrats would be required so that if there was a dilemma between regulation and innovation, the pro innovation component could be selected. Regulation was needed to minimise the downside of technology. Clear directions were essential to become a technologically developed nation by 2047. He said that the Internet is a living organism, would keep evolving and all of us need to be actively engaged and that was why strengthening IGF was important.

Mr. Anupam Agrawal

Anupam Agrawal said that the Internet was nothing but a set of standards which work, such as the network layer TCP/IP was RFC. If you wanted to move ahead, there was a border gateway protocol

which was a standard. If you wanted to send an email, there was RFC 3806 as an SMTP which allowed you to send an email from one person to another. Next, you moved to ipv6, which had another set of standards. Thus, Anupam said, we are surrounded by standards. And unless we participate in the standardisation bodies, we would not be at the table to talk in the right fashion. It was not enough to talk at the policy level at multiple forums, it was essential to be at the technical standard discussions.

Anupam wished that an IETF (Internet Engineering Task Force) meeting could be hosted in India, in the manner that India had hosted ICANN and IFG. Hosting such an event would help build the capacity required at the home level which would also foster participation at global events. He also wished for polytechnic courses and a review of the education system to support capacity building pertaining to the network layer, as there was a huge requirement for people who could run the basic commands. In terms of calibrating Bharat's digital agenda, he said that we need to start discussing the issue of trust, or more importantly, of being trustworthy. The systems need to be trustworthy and the Internet needs to be trustworthy; rather than providing trust through security protocols, he said. There were certain drafts in IETF which were looking at trustworthy routing, trustworthy peering, collaborative drafts of Juniper, CISCO and other network providers. This he felt was an area we needed to look into in terms of calibrating Bharat's digital agenda.

His second point was with regard to the ability to connect. Citing a report by the Internet Society which had calibrated countries in terms of Internet poverty, he said that India stood second in Internet poverty despite the fact that we have told ourselves that we are a huge country where we have connected so many people and so many devices. He called for providing quality Internet because if that was not provided, a divide that was not there earlier was being created. For this he gave the example of earlier being able to go to the local municipal office to obtain a birth/death certificate. But now, if the only option was to download it from the official website, and there was no quality Internet to enable download, a new divide was being created. Hence, it was necessary to rethink the way we are connecting people and for that, possibly a light touch on the regulation on Internet exchange points was required because that was where we would create communities at the ground level and it would also allow local operators to connect.

Astha's wish list called for social infrastructure. She said that while there was talk about digital infrastructure and hard infrastructure, what was also needed was social infrastructure – human infrastructure. India was already becoming the hub of data labelling with new kinds of jobs that were going to be created contributing to the new forms of the Internet. She wondered if it were possible to professionalise some of the governance infrastructure and do that in a way that India not only took the lead on deploying technology but also deploying a techno-legal approach. The deployment of DPI in India, she said, was an iterative process and there was a big body of social infrastructure and user research that happened to make DPI contextual, thoughtful and inclusive. From their work, she said that instantiating a lot of the technologies and ideas of governance needed significant last mile support. She said that currently all the frontline workers were at the moment actually implementers of the DPI, whether through ABDM or through informal intermediaries that helped women do transactions online etc. There was a way to think of infrastructure as a much broader set of things and not just technology; and appropriate packaging would help establish a leadership position.

Shivnath's wish list included an open conversation between stakeholders, especially the industry, because the current theme of conversation was always 'how to regulate'. He said there was no conversation on 'let's brainstorm on what can work in India, what are the opportunities, what is really open source, what India needs from a big tech company'. Right now, he said, the lens was usually on user harm, on how to tame AI, how to set boundaries, how to regulate it. He said that he had never heard something like a two-day brainstorming on the wackiest ideas on AI. The second item on his wishlist was that the innovation ecosystem should be more distributed.

Amrita said that one of the reasons why IGF was formed after WSIS+ discussion was to create an open platform where everyone could come and discuss. One of the criticisms of IGF was that it was not a decision maker, but it was made that way by design. It was important that everyone got a chance to have a say without gags and sometimes without judgement, to generate new ideas. There was a need to have open conversations. In the G7, they had come up with the Hiroshima dialogue but what the people working on AI in Japan said was 'we may come up with frameworks, but we will not want to regulate because we want our industry, we want people to get jobs.' Others may think differently, she said.

Ashwani began by stating that by 2047 India should be a developed country and that the rest was in reverse order. He elucidated as follows. 'By strengthening IGF what am I going to achieve? Because, then the Internet remains free. Why should the Internet be free? Because, then I can enjoy what I want to enjoy on the Internet, so those rights are kept intact. What will I get to do by that? I will get freedom to innovate services, and do my business the way I want.'

He said that something tangible that was understood clearly was that only technologically developed nations are considered developed. Unless you were technologically developed, you could not be a developed nation. You could become technologically superior only if the Internet was free, open, inclusive and multi-stakeholder governed. These ideas were not in the public domain; it was necessary to bring together all forces that could strengthen this.

Audience interaction

A question from the audience was on engaging young people and empowering them to get them actively involved in the standards space. Anupam responded that youth did not see standardisation as a career. AI being the buzzword, most colleges taught AI and everyone was looking forward to a nice job after they had learnt AI for four years. He said that though we are a digital services-oriented country, the mindset was that standardisation was for products, a myth that needed to be resolved. Pointing out that for providing digitally delivered services that impacted safety and human life, there had to be standardisation related to digitally delivered services. He also said that organisations were not putting effort into creating standardisation cells.

Sushil Pal said that our approach should be to promote open standards. Any technology – any product – hardware and software, once they achieve certain minimum benchmarks, they become world class products, he said. Following the process as to how they are socialised, industries like Meta and Google start using them, and that evolves into a standard. He said that UPI had its own standards but it was just a two-page protocol. Similar was the case with ONDC; the standards

looked technical but were a set of protocols which was the back-end protocol and maybe a set of registries. Once the big companies started using them, socialising them to the western world, they would become established standards. India was using this approach in international cooperation by socialising these with other countries.

Another participant's feedback was that India's engagement with the Internet engineering task force was to decline any proposed change. To this, Anupam said that an intense focus on building that capacity was needed. A national strategy for Internet governance was very important as an integrated approach was needed, rather than participating on the basis of an individual's passion, organisational interest or some other driving force.

The day's programme concluded with a vote of thanks by Mr. T Santhosh, Scientist F, MeitY.

6. Annexure: Program Schedule

09:00-10:00 Hrs	**Registration**
10:00-10:05 Hrs	Lamp Lighting by the dignitaries
10:05-11:30 Hrs	● Shri Devesh Tyagi, CEO, NIXI (Chairman, Coordination Committee, IIGF) – **Opening Remarks** ● Shri Sushil Pal, Joint Secretary, MeitY – **Welcome address** ● Ms. Amrita Choudhury, Director, CCAOI – **Recap of IIGF 2021 & 2022** ● Ms. Sally Costerton, Interim President & CEO, ICANN – **Technical Address** ● Ms. Carol Roach, IGF MAG Chair – **Address from UN IGF** ● Ms. Anita Gurumurthy, Founder & Executive Director, IT for Change – **Civil Society Address** ● Ms. Sarah Kemp, Vice President, International Government Affairs, Intel – **Industry Address** ● Shri. S Krishnan, Secretary, Ministry of Electronics & Information Technology, Government of India – **Special address** ● Shri. Rajeev Chandrasekhar, Hon'ble Minister of State for Electronics and Information Technology, Government of India – **Keynote Address** ● Shri T.V. Ramachandran, President, BIF (Vice Chairman, Coordination Committee, IIGF) – **Vote of Thanks**
11:30- 12:00 Hrs	Networking Tea Break
Panel 1 – Building a secure, trusted and resilient cyberspace for Bharat	
12:00-13:15 Hrs	**Moderator:** Mr. Saikat Datta, Founder & CEO, DeepStrat **Online Moderator:** Mr. Gangesh Varma, Saraf and Partners **Panellists:** ● Dr. Sanjay Bahl, DG CERT- IN ● Ms. N.S. Nappinai, Advocate, Supreme Court & Founder, Cyber Saathi ● Mr. Rahul Kant Sahu, DGM, i4C,CIS, MHA

	● Mr. Alok Gupta, Founder & CEO, Pyramid Cyber Security & Forensic **Vote of Thanks:** Mr. Gangesh Varma, Saraf and Partners
13:15-14:15 Hrs	Lunch Break
Panel 2: – Enabling Innovation for India's Developmental Goals	
14:15- 15:30 Hrs	**Moderator:** Ms. Surabhi Agarwal, Economic Times **Online Moderator:** Mr. Kazim Rizvi, The Dialogue **Panellists:** ● Dr. Rajat Kathuria, Dean, School of Humanities and Social Sciences, Professor, Economics, Shiv Nadar University ● Mr. Rahul Matthan, Partner, Trilegal ● Mr. Sunil Abraham, Public Policy Director, Data Economy and Emerging Tech, Meta ● Mr. Dipendra Manocha, Director, Developing Countries, DAISY Consortium **Vote of Thanks:** Mr. Kazim Rizvi, The Dialogue
15:30-15:45	Networking Tea Break
Panel 3: Bridging Divides	
15:45- 17:00 Hrs	**Moderator**: Ms. Amrita Choudhury, Director, CCAOI **Online Moderator:** Ms Ishita Garg, NIXI **Panellists:** ● Mr. Amitabh Nag, CEO, BHASHINI, MeitY ● Dr. Nirmita Narasimhan, Programme Director, Saksham ● Brig. Anil Tandan, DG, Broadband India Forum ● Ms. Akansha Sharma, Programme Officer, ITU Area office & Innovation Centre, India **Vote of Thanks:** Ms. Ishita Garg, NIXI
17:00-17:15 Hrs	Networking Tea Break

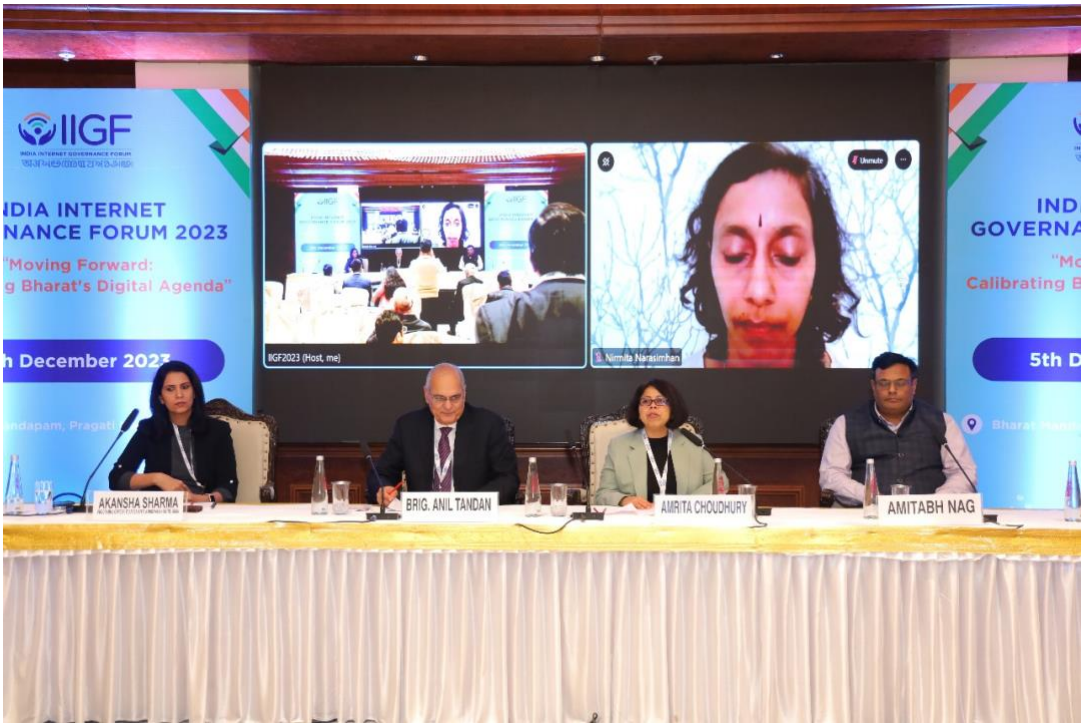
Valedictory Session: Calibrating Bharat's Digital Agenda & Leadership for Global Digital Governance & Cooperation	
17:15- 18:30 Hrs	**Moderator:** Ms. Amrita Choudhury, Director, CCAOI **Speakers:** ● Ms. Astha Kapoor, Aapti Institute ● Mr. Ashwani Rana, Chief Public Policy Officer, Zupee ● Mr. Anupam Agrawal, PTI-Board, & Chair, India Internet Foundation (IIFON) ● Mr Shivnath Thukral, Director & Head of India Public Policy, Meta ● Mr. Sushil Pal, Joint Secretary, MeitY **Vote of Thanks:** Mr. T Santhosh, Scientist F, MeitY

7. Photographs

Group photo after the Inaugural Session with Hon. Minister Sri Rajeev Chandrasekhar

Panel 1: Building a secure, trusted and resilient cyberspace for Bharat

Panel 2: Enabling Innovation for India's Developmental Goals



Panel 3: Bridging Divides

Valedictory session

Valedictory Session: Vote of Thanks