Annual Report

2021

United Nations Internet Governance Forum

Dynamic Coalition

on

Data Drive Health Technologies

DCDDHT

2021 DC DDHT Annual Report

Mission Statement

Mission Statement of the United Nations Internet Governance Forum (IGF) Recognized Dynamic Coalition on Data Driven Health Technologies (DC DDHT):

> The Dynamic Coalition on Data Driven Health Technologies facilitates a multi-stakeholder dialogue on e-Health, m-Health (mobile), and e-Wellness Technologies, so as to seek common ground on values, principles, ethics, norms, culture, standards, best practices and so forth.

> Knowledge sharing and open communication between multi-stakeholders, with collaboration, assists innovation and delivery of quality eHealth Care products and services. Technology tools and devices, access by the internet, data sharing and use on the Internet, Medical Internet of Things and Wellness Internet, enable, the mandates of the United Nations Sustainable Development Goals (SDG), and in particular, Goal Number Three. SDG Goal #3 seeks to ensure Health and Well-Being for all, at every stage of life.

> The Dynamic Coalition takes a global citizen centered approach on all matters.

Acknowledgements

Disclaimer

2021 DC DDHT Annual Report is Reported By:

Ms. Amali De Silva – Mitchell, Founder & Coordinator, Dynamic Coalition on Data Driven Health Technologies. January 28, 2021.

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1. Executive Summary

United Nations Internet Governance Forum recognized Dynamic Coalition on Data Driven Health Technologies DC DDHT was very active in 2021. Due to the restrictions on physical gatherings and especially travel, due to the Covid-19 international pandemic, meetings were conducted virtually. This highlighted the critical importance for effective technology tools for on-line collaboration.

This provided a successful vision for on-line collaboration from all parts of the world, making equal access to meetings a reality. New social interaction tools enabled opportunities for virtual corridor chats and virtual private meetings at virtual conferences, which are a very encouraging set of developments for international collaboration. These tools are a precursor for truly accessible internet tools for all and will enable quality medical services delivery to a wider group of global citizens.

Collaboration with UN agency and IGF partners took place throughout 2021 on a wide spectrum of issues. Members of the Dynamic Coalition DC were very engaged and effective in sharing their valuable insights with the internet policy and technical communities. The DC had the honour of being part of the High-Level Track Facilitators group, for the International Telecommunications Union ITU World Summit on the Information Society WSIS Forum 2021.

The DC had the greatest pleasure in November of 2021 to announce the DC DDHT's inaugural book, written by the members of the Coalition and published online at the United Nations Internet Governance UN IGF website. The title is **"Health Matters, Technologies Driving Change in Healthcare, A Community of Thought"**. The book's chapters are a valuable collection of observations, insights and recommendations for internet, ehealth and technology policy for the present and for the future. The book was launched at the Dynamic Coalition session at the 2021 IGF Annual Meetings in Poland, which took place in a hybrid onsite and virtual format and was very effective.

The age of the Medical Internet of Things MIoT is with us and the Wellness Internet WI, with its associated devices and information is already present in a mature form. Hence, monitoring the performance of MIoT and WI and supporting this development for the benefit of all, so as to be a supportive enabler of UN SDG #3, is very important. During the current global Covid-19 pandemic, we have realized the need for providing e-health and internet and communications technologies ICT services, so as to maintain healthy, productive, economically resilient societies. This approach will be the new normal for health care for the future.

Members of the DC shared their knowledge, expertise, passion and insights for the future, for this rapidly developing space. The impacts for data, connectivity, assess, privacy, security and citizen rights, with risks and opportunities for local, regional and international collaboration for the infra-structure and emerging technologies, standards and also for financing, keeping in mind Environment, Social and Governance ESG values, were well deliberated.

2. Score Card on Policy Matters

Knowledge Sharing For Public Awareness: Score Card	
Theme	**Event**
5G / 6G / IoT	Book / IGF Poland
Accessibility & Disability, Inclusion and Diversity	DC workshop
Artificial Intelligence / Machine Learning	Book / IGF Poland / VSIG
Best Practice; Branding, Philosophy, Buddhist Perspective, Trust	DC workshop / Book / IGF Poland
Block Chain in healthcare	Book / IGF Poland /VSIG
Bio Technology	Book / IGF Poland
Children and Technology	Book
Consumer Protection & Onboarding	Euro DIG
Costs of technology implementation (public input)	IGF Preparatory Session
Emerging Technologies (Graphene), Leadership	VSIG
Economic Resilience ESG; e-Waste	DC workshop / ITU Collaboration
Gender; Technical Skills	Euro DIG
Indigenous Health	IGF Preparatory Session
Sendai Framework Emergency Relief	Book / IGF Preparatory Session
Statistics, Cloud Technology	Book / IGF Poland
Ethics; Risk Management; Standards; 7 Rites of Data	Workshop / Book / IGF Poland
Finance / Insurance / P3 / Fin-tec / Investment	DC workshop / Book / IGF Poland /ITU
Human Emotion and Human Computer Interaction onboarding	Euro DIG
International Collaboration	ITU Working Group Contribution / VSIG
Internet Access - Quality Internet	Cross Cutting
Privacy. Data Sharing, Design & Security	Book / IGF Poland /ITU
Quantum & Nano Technologies	Euro DIG/ VSIG / Book / IGF Poland
Robotics	VSIG / Book / IGF Poland
Satellites & Connectivity	VSIG / Book / IGF Poland
Smart Cities Emergency Health	ITU
Surveillance & Mental Health	Book / IGF Poland
Wearables / Devices Personal Health	Book / IGF Poland

3. Background to UN Internet Governance Forum, Dynamic Coalitions

Internet Governance was one of the most controversial issues discussed at the United Nations World Summit on the Information Society WSIS, held in two phases, in Geneva, 2003, and in Tunis, 2005. Cognizant of the fact that any Internet Governance approach should be inclusive and responsive, the WSIS requested the SecretaryGeneral of the United Nations to convene a new forum for multi-stakeholder policy dialogue.

The Internet Governance Forum (IGF) as a platform for discussions, brings various stakeholder groups to the table as equals to exchange information and share good practices. While the IGF may not have decision-making mandates, it informs and inspires those who do. It facilitates a common understanding of how to maximize Internet opportunities and address risks and challenges. (*Sourced IGF Website January 2021*)

IGF Mandate Paragraph 72 of the Tunis Agenda: 72: We ask the UN Secretary-General, in an open and inclusive process, to convene, by the second quarter of 2006, a meeting of the new forum for multi-stakeholder policy dialogue called the Internet Governance Forum (IGF). The mandate of the Forum is to: • Discuss public policy issues related to key elements of Internet governance in order to foster the sustainability, robustness, security, stability and development of the Internet; • Facilitate discourse between bodies dealing with different cross-cutting international public policies regarding the Internet and discuss issues that do not fall within the scope of any existing body; • Interface with appropriate inter-governmental organizations and other institutions on matters under their purview; • Facilitate the exchange of information and best practices, and in this regard make full use of the expertise of the academic, scientific and technical communities; • Advise all stakeholders in proposing ways and means to accelerate the availability and affordability of the Internet in the developing world; • Strengthen and enhance the engagement of stakeholders in existing and/or future Internet governance mechanisms, particularly those from developing countries; • Identify emerging issues, bring them to the attention of the relevant bodies and the general public, and, where appropriate, make recommendations; • Contribute to capacity building for Internet governance in developing countries, drawing fully on local sources of knowledge and expertise; • Promote and assess, on an ongoing basis, the embodiment of WSIS principles in Internet governance processes; • Discuss, inter alia, issues relating to critical Internet resources; • Help to find solutions to the issues arising from the use and misuse of the Internet, of particular concern to everyday users; • Publish its proceeding *(Sourced IGF Website January 2021)*

Role of the Multistakeholder Advisory Group (MAG)

The Secretary-General of the United Nations established the Advisory Group (now referred to as the Multistakeholder Advisory Group - MAG). The purpose of MAG is to advise the Secretary-General on the program and schedule of the Internet Governance Forum meetings. The MAG is comprised of 55 Members from governments, the private sector and civil society, including representatives from the academic and technical communities. In addition, representatives of

former IGF host countries, as well as representatives of intergovernmental organizations, are invited to attend and contribute to the meetings and work of the MAG. The MAG holds face-to-face meetings, preceded by open consultations, up to three times a year.

The idea of establishing a Dynamic Coalitions Coordination Group (DCCG) emerged at the 10th IGF in João Pessoa, Brazil, during the first-ever main session dedicated to Dynamic Coalitions (DCs). The idea found broad support among members of the different coalitions, many of whom were exchanging views and good and best practices for the first time. The main task of the proposed Group would be, on one hand, to develop a framework for all DC with some common principles and recommended rules of procedure, and on the other hand, to act as a convener of coalitions in order to further the open and constructive discussions that took place in Brazil. The Group would work on obtaining organizational support in those areas where the Dynamic Coalitions may require support, look at areas of overlap and duplication and aim to create synergies among DCs. It was suggested that it also serve as a liaison to both the IGF Secretariat and the MAG. *(Sourced IGF Website January 2021)*

4. The Dynamic Coalition on Data Driven Health Technologies, Within the UN IGF Framework

The Dynamic Coalition on Data Drive Health Technologies, DC DDHT, is a recognized member of the Dynamic Coalitions of the Internet Governance Forum IGF and as such, is a member of DCCG. DDHT also seeks to work collaboratively with the working groups of the United Nations International Telecommunications Union, the World Summit on the Information Society activities, as well as with other international, regional and national initiatives such as EuroDIG, Internet Society, ICANN and others. Members of the Dynamic Coalition also hold positions within these other entities.

The founding mandate of the DC DDHT has been as follows: The DC will discuss the issues and make recommendations to improve data quality and access to data, for building or remediating technologies and services to the global public, in keeping with the United Nations Sustainable Development Goal # 3: Ensure healthy lives and promote well-being for all at all ages. This will involve supporting technologies for the eradication of diseases; easing of blindness or hearing; enhancing nutrition; support of new developments for surgery; tele-medicine; public health education; public health management and so forth.

DC activities will include providing guidance and interpretations, risk management, advocacy and making recommendations for data standards, best practices and providing input in to other related and associated policies and legislation. DC Scope: Global, all health, associated industries, services, fields (such privacy, safety etc.) in the private, non-profit and public sectors. There are no exclusions of associated or cross-cutting policy or methodologies and it strives to be fully inclusive and diverse in approach to all matters, ensuring a multi-stakeholder approach.

5a. Intersessional Work: Work Shops with the IGF Community

The Dynamic Coalition hosted a number of workshops virtually in 2021 for the IGF community. Each work shop participant was provided with a workbook prior to the work shop, that provided an over-view of the subject matter to be discussed and a few questions to be discussed during the work-shop. The work shop materials were prepared by Amali De Silva-Mitchell.

The groups were small and comprised of both DC own members and members of other DCs. The purpose of the session was to share information amongst the participants and gather the interest level for the subject matter. All sessions generated interest and Dr Bimalka Seneviratne prepared a short presentation for the session on Medical Ethics which was distributed to the DC list as well. During that session it was noted that the DC could prepare a tool for use by multi-stakeholder groups developing ehealth systems. No detailed reports were maintained of the sessions as the participants were advised they could speak under Chatham House Rules. The sessions were as follows:

      i. **February 2021:** The Value Proposition In EHealth & MHealth Care. The Search For The Comprehensive Stakeholder Group, For Application Systems & Product Development.

      ii. **March 2021:** Exploring The Ethical Landscape for Emerging Technologies In Medicine. What Are The Issues For Technologists, Medical & Other Stakeholders As They Collaborate For Success?

      iii. **April 2021:** Exploring The Risk Management Landscape for Emerging Technologies In Medicine, What Are The Key Performance Indicators KPIs & Digital Gaps For Technologists, Medical & Other Stakeholders As They Collaborate For Success?

      iv. **May 2021:** How Should We Consider Environmental, Social, Governance (ESG) Factors & Financial Reporting for EHealth and MHealth Care? How Can the *Digital Health Care Divide* Be Addressed With ESG?

      v. **June 2021:** Branding & Consumer Protection in the eHealth and mHealth space.

      vi. **June 2021:** Fin-tech and its Applications with a Special Focus for eHealth and mHealth (mobile health).

The DC also hosted a preparatory session for the IGF Meetings in October 2021. The session was on the application of the *United Nations Sendai Framework* to the internet, and ehealth and mhealth in particular. The title of the session was **Health Matters & The UN Sendai Framework; Risks & Opportunities A Public Discussion On The Use of ICTs & Technology Response Enablers, In Times Of Health Care Crisis.**

A recording of the session is made available under the IGF utube recordings, online.

The session proposed four questions to the virtual international audience:

> Question # 1 What have we learnt (issues, risks, gaps, opportunities etc.) from health technology and ICTs roll out, during the Covid19 pandemic in the area you come from?
>
> Question #2 How can we develop resilient, timely, relevant health technologies for the future, to enable management in times of crisis, and how can the UN IGF / UN Agencies community help with this?
>
> Question #3 What investments are required to build better and stronger health technology infra-structure for the future; who are the stakeholders and how should collaboration be conducted?
>
> Question #4 What should a long-term future vision for health technology, emergency response consider (ethics, inclusivity, literacy, affordable access, cultural values, devices etc.)?

An interesting discussion was activated, with audience participation from Dr Chiara Saccon *(reference: cost of implementation),* Mr Sivasubramaniam Muthusamy *(reference: indigenous health)* and Dr Amado Espinosa. DC member moderators were Amali De Silva-Mitchell *(provided an introduction to the concepts and associated UN agency work – read out on her behalf by Robert Guerra),* Robert Guerra, Frederic *Cohen (on current international work and collaboration in the UN space)*, Jörn Erbguth *(limitations of AI)* and Herman Ramos *(observations on the international space of activities).*

5b. Intersessional Work - Other

Members of the DC participate at the MAG open sessions and the DC recommended the application of the UN Sendai Framework to the Internet during an Open MAG call. The DC provided input for the public consultation on the proposed structure for the new multistakeholder high-level body envisaged in para 93(a) of the UN Secretary General's Road Map for Digital Cooperation. At the IGF Annual Meetings the DC proposed to the chat, that the UN Declaration on the Rights of Indigenous Peoples should also be specifically applied to the internet, and of specific interest is the rights for indigenous health.

The DC provided input in to the survey on the IGF's new website and for the survey of DCs by the DC Co-ordination group. DC members attend the DC Coordination group online meetings and / or kept abreast of the meeting details, via the transcripts posted online.

The DC was invited to present the teaching session **"Emerging Technologies for the Internet"** for the IGF Virtual School of Internet Governance VSIG, led by Glen McKnight, for the North American and International studentship. The session was moderated by Amali De Silva-Mitchell with presentations from DC members Frederic Cohen *(on communications and other technologies)* and Jörn Erbguth *(on artificial intelligence).* The DC had as guest speaker, Dr Indira Samarasekera *(on new computer hardware capabilities, graphene and from her new book as co-author with Dr Martha Piper, Nerve, Lessons in Leadership*) former President and Vice Chancellor of the University of Alberta, Canada.

A copy of the virtual session is found within the archives of VSIG.

6. 2021 Book: Health Matters, Technologies Driving Change in Healthcare, A Community of Thought.

Published November 2021.

The book's chapters were written by member of the Dynmic Coalition over the course of the 2021 year. Found below are highlights from the book's chapters, either as abstracts, extracts, summaries by the author or chapter reporter.

The complete chapters are available for download, at no charge, from the United Nations Internet Governance Forum, Dynamic Coalition on Data Driven Health Technologies webpage at: [Dynamic Coalition on Data Driven Health Technologies (DC-DDHT) | Internet Governance Forum (intgovforum.org)](#)

The articles, opinion pieces and case studies are as follows:

Article: Investing in the Technologies Driving Change in Healthcare

By: John Lee Allen, Shabir Chowdhary, Vivien de Tusch-Lec, Eric Kostegan, Dr Laila Samady-Mustad, Dr David Holbrook, Fergus Hay, Dr Annalisa Jenkins and Dr Carina Tyrell (Group Lead to DC)

Abstract / Summary: Digital diversity of healthcare is driven by increasing demand, rising financial burden of healthcare, declining healthcare workforce, changes in regulation and consumerization. There has been a significant increase in investment into emerging technology driven healthcare companies. Overcoming challenges to growth is required to realise the full potential of the technologies transforming healthcare.

Policy/ Conclusion: Investment in early stage financing of healthcare technologies still proves to be a challenge and there is a need for new and innovative financing methodologies. The use of digital technologies can increase access, reduce cost and improve the quality of healthcare.

Article: Inherent Limits of the Use of AI (Deep Learning) in Health Care

By: Jörn Erbguth

Abstract: AI is being increasingly used in health care. Most concerns are about possible biases of such AI systems and possible ways to counter these biases are being discussed. However, bias is rather a symptom of a much larger issue and introducing counter bias threatens to render things worse. The proposed EU AI regulation is taking the right regulatory approach but has a much too broad definition of AI.

Conclusion : While public attention focuses on bias and discrimination, the risks of applying AI (Deep Learning) in the health sector are far broader. The slightest modification of input data might lead to a complete malfunction of a system. Constant supervision is mandatory.

Article: Blockchain and Healthcare Data Current Applications

By: Galia Kondova & Amala Arockia

Introduction: Healthcare records are increasingly becoming digitized. The electronic healthcare data exchange is being facilitated by standards such as the Fast Healthcare Interoperability Resources standard (FHIR) developed by Health Level Seven (HL7). The HL 7 FHIR standard has primarily been used among institutions within the healthcare system. However, the outbreak of the COVID-19 imposed the necessity to track and selectively share information on individual COVID-19 status outside the healthcare system, i.e., with non-healthcare organizations.

Conclusion: Thus, new privacy-preserving solutions based on the blockchain technologies have been developed in order to facilitate personal health data exchange in a secure and privacy compliant manner (Kondova, 2021).

Article: Digital Technologies for New Healthcare Applications Under the COVID-19 Pandemic

By: Dr. Christine P. Tan

Abstract: The COVID-19 pandemic has disrupted the daily lives of people worldwide on an unprecedented scale, resulting in the emergence of new norms, such as people staying at home for longer periods of time, the ubiquitous pandemic prevention and control measures happening on individual, community and national levels, as well as the increased need for personal healthcare at home. These scenarios have brought about new challenges and issues, which digital technologies such as Internet of Things (IoT), artificial intelligence (AI), big data, and 5G can help to address. This paper will discuss some examples of these digital healthcare solutions and their innovative applications under the COVID-19 pandemic.

Conclusion / Policy: Advances in digital technologies have enabled smart healthcare devices to permeate the daily lives of people worldwide. Under the pandemic, the integration of digital technologies such as IoT, AI and big data, have created innovations in healthcare applications, ranging from COVID-19 contact tracing, remote healthcare and school sports lessons at home, helping to alleviate some of the inconveniences brought about by COVID-19. However, there remains much room for improvement in these new digital healthcare solutions, especially in areas such as data privacy, reducing the learning curves of using these technologies, as well as considerations of new social interaction modes and economic models in smart healthcare

today. It would also be helpful and interesting to reach out to users in the form of community consultations and gather their feedback for improvements.

Article: Health Data: Exploring the Adoption of Internet of Things in Healthcare

By: Herman Ramos

Introduction: Technological innovation has been the motor for social and economic development, as it has brought about a change in the paradigm of how various activities were carried out. The health sector is one of the points where technological innovation has contributed to the creation of more sophisticated means to provide a more efficient and comprehensive service cycle. One of the innovative technologies is the so-called Internet of Things. The Internet of Things (IoT) refers to a system of interrelated, internet-connected objects that are able to collect and transfer data over a wireless network without human intervention.

Policy: With an involved technology such as IoT, the update and change of tools must be a continuous process in order to adapt to new possible challenges across the health system.

Article: The implication of the digitalization of the healthcare on Data Protection and Security

By: Herman Ramos

Introduction: With the increase of digital solutions in the health sector, the interaction between patients and doctors have also been moving from face to face in the digital world. This digital interaction (migration) allows the patient to receive information about medication, about exam results, about future consultation, etc. As a result, there is an increase in access to healthcare outside care settings. In addition, the change to the virtual world means that information of the patient must be collected and stored by the health care. The increase of cyber tacks, the increase of data breaches, the misuse of data, the lack of cybersecurity strategy and regulation, the non-existence of data protection regulations in some countries has highlighted the need to ensure the protection and security of the Medical data or patient Health Record Data. In some cases, the lack of data protection and security regulation is affecting the digitalization of healthcare, because there is no guarantee of the protection of the digital integrity of the data. This delay has consequences in the digital transformation of the health industry. This is affecting the digital economy and sustainable development goals especially in obstructing the achievement of Universal health coverage, end of poverty and reduce inequalities.

Conclusion / Policy: It is important not only provide the technological solutions to the healthcare industry but guaranty two (2) important aspect: • Ensure the protection of the Medical Data by implementing the regulatory framework inside the organizations, to implement national and regional laws, and guarantee the accountability, compliance inside the organization. This will certify that the Medical data is being collected, secured and shared in a standardised manner. • Ensure that the technological solutions used are protected and secure by design. Also must apply different kinds of protection programs and implement cybersecurity strategies inside the organization including the increase of security awareness.

Article: Surveillance and Mental Health

By: Alex Buckham

Introduction: The primary issue here is a familiar one: governments and corporations have been repeatedly exposed for not behaving responsibly with people's data. Modern technology and surveillance systems have been utilised by the likes of Facebook, Google and Amazon – and many more besides – to understand and even modify human behaviour (Zuboff, 2019). They have also been used by states to further marginalise, alienate and oppress demographics, whose core principles and values somehow contradict those of politically and economically powerful groups within a particular society: this means anyone from peaceful activists to politically apathetic members of BAME communities are now at even greater risk of having their rights violated. For no justifiable reason.

Conclusion: Ultimately, whether one chooses to focus on engaged political activist groups, disengaged minority demographics or comparatively more privileged communities, government surveillance does have, and historically has had, negative impacts on people's mental health and wellbeing. In supposedly free, liberal, democratic societies, the population elects its leaders, who's primary mandate concerns the protection and promotion of the health and wellbeing of the general population. Government and broader state power is only legitimate insofar as it protects the wellbeing of the people. This essay has provided a number of examples as to why, in the context of surveillance practices and people's psychological health, this mandate has not been fulfilled.

Article: Ethics and Technology, Reflections of a Buddhist nun

By: Emma Slade

Extract: "From a Buddhist point of view when supporting the development of the human being and their mind many things are talked about as developing together, in an inter-connected way rather than in separation. This is a living representation of the Buddhist philosophy of interdependence and, shown below as the eight spokes of a wheel, is it clear that overall

change or movement is not possible with missing spokes! For example the eight fold path of the noble ones is often represented in this way: Right understanding, right thought, right speech, right action, right livelihood, right effort, right mindfulness, right concentration.   In a sense this can be seen as a basic 'rightness' forming the very ground or the essential quality within the development of all other qualities. In some ways it could in itself mean 'ethical.' "These 8 rightful manners should be applied to technology when designing and applying technologies.

Conclusion: If the enabling support of technology is in fact the panacea to achieving a wonderfully ethical world driven by the wish to relieve suffering. My understanding is that the algorithms which are increasingly driving wellbeing apps are raising this possibility. If someone shows a propensity to study right mindfulness the algorithms will ensure they are offered more and more mindfulness support. Even more game changing would be the core principal of non-harming incorporated into a framework of algorithms. When we look at the world we witness again and again an ease with causing harm to others, to animals and to nature. Whilst more transparent interconnections have highlighted this in so many ways (environmental, supply chains and plastic use) how much further could it go, supported by technology?

Article: Health Matters Driving change in healthcare, Book On Artificial Intelligence

By Ashwini Sathnur

Extracts: The emerging technologies feature the digital technologies and the information and communication technologies that are subjected to provide mitigation solutions for providing assistance solutions for creating enabling platform channels of support to specially – abled persons. The term utilised for the objective of these types of innovative ideologies is "accessibility". The title of these product solutions is "Accessibility and inclusive development". Assistive devices and medical care enabled product solutions create new entrepreneurship opportunities which create scalability of innovative ideologies and transformations of the medical facilities via the implementation of the information and communication technologies based product solutions.

Conclusions / Policy: Privacy and protection of the health data of the specially – abled persons would be vital. To ensure the safety of this data, cybersecurity solutions would be integrated into the product solutions of the artificial intelligence. The conceptual frameworks of the artificial intelligence and inclusive development leads to the creation of the telecommunications 5G and the emerging technologies. Thus leading to the evolution of the digital technologies era!

Articles: Robotization to renew our economy in a post pandemic period; &

Biotechnologies to support humanity

By: Frederic Cohen

Summary: The partnership with ITU offers different possibilities to develop a cloud which can be inclusive and timely relevant. It invites stakeholders to take new responsibilities in order to benefit to the whole community.

The international cooperation is enhanced and the future of our work is to share some ideas for industry, world trade and public policy making. The Silk Road initiative from the Member State of China is an opportunity to the world to achieve the Sustainable Development Goals.

We increase security by our talk on emergency issues which concerns both the global network and the local level. In this period of pandemic, people of the world have found new solutions to protect the environment and to improve the air quality. It is the case of the project SEEA for ARIES which offers a database of the statistical components of the atmosphere, incorporating data from universal crowdsourcing.

It has become an emergency issue to provide an efficient regulation of energy from different sources, in particular water pipework and road traffic which have to work with synergy to enable transport and communication for people with disabilities as well as to achieve a new step of development.

The announce to the community of the Chinese initiative for a space solar power plant has also a great interest as it would provide wireless energy for everyone. Those scientific exchanges have also inspired another technology to the last French satellite Syracuse which includes a system of defense against nuclear weapon in radiation. Algorithms of signal modulation permit a lot of combination from their digitalization and further progress still have to be explored.

Automation in those processes will propose to implement tools that would facilitate the analysis of a data flow and the World Bank should support this transformation in the way the population is sharing services, by offering grants to NGOs.

Reported by Frederic Cohen

Policy: International collaboration is important on all fronts for technology development.

Opinion Pieces: *Cloud Technology and Its Impacts For Healthcare Technologies on the Internet; Quantum's Impact On The Culture of Technology For Healthcare on the Internet; The Role of Statistics In Healthcare, A Dependency For The Future; The Age of Telehealth, Internet A Partner For Resilient Economies; The United Nations Sendai Framework, Risk Management Considerations For Mobile & E-Health Initiatives On The Internet; Plato's Modern Artificial Intelligence Humanist Society; An Approach To Addressing Children's Rights In An Artifical Intelligence Dominated Society On The Internet*

By: Amali De Silva Mitchell

Summary: Artificial Intelligence and Quantum Technologies will compete with humans in to the future and this will pervade in to all aspects of human and technology Health and Wellness. Known norms of social structure will evolve in unknown ways for the future. A Sophisticated ehealth, mhealth and telehealth with good risk management such as through the UN Sendai Framework for a Quality Internet is important for resilient and productive economic societies.

Conclusion / Policy: Cloud Technologies should be seen as more than a support technology, it should also be a financier and driver of technologies to the last mile. Data Oceans will be created, and just as the attributes of oceans are warm and cold, shallow and deep, crashing and smooth, dragging and churning, data will present issues as much as it will facilitate technologies. It is critical that we understand through new developments in statistics and other data analyses, our ocean of data in all of its facets and forms, taking care that Trojan data could also exist.

7. Health Matters, DC Session at IGF Poland Meetings 2021, Public Engagement Event

December 9 2021

A fascinating session was organized by the DC at the IGF sessions in Poland. The session was a resounding success with 30 plus registered participants and around 20 direct content providers.

Abstracts of articles from the DC DDHT 2021 On-line Book: Health Matters, Technologies Driving Change in Healthcare A Community of Thought, were presented by it's writers for part one of the session. It was very interesting to understand the emphasis placed by the writers on the subject matters.

Utube recordings and transcripts of the session and its components are made available on the IGF website.

Part two of the session which was open for audience participation, made up the public survey mandate of the DC. Opening comments were presented by Dr Amado Espinosa. The Internet Society of Switzerland made comments on the need for the management of the privacy of data in times in crisis, to ease fast ehealth solutions, in light of observations from the activities of healthcare around the recent Covid-19 pandemic

General Observations:

Emma Slade's article presented an ethical approach to technology development based on "the eight-fold path of the noble ones (Buddhism)", right understanding; right thought; right speech; right action; right livelihood; right effort; right mindfulness; right concentration.

Quality e-health care can be enhanced and made accessible to All, with the power of internet-based technologies for achievement of UN SDG#3. A Quality Internet is a pre-requisite for high quality service delivery. Designing ehealth and mhealth for quality outcomes can be supported by keeping in mind 7-Seven R-Rites *(reference Amali De Silva-Mitchell)* for data within eHealth systems. Incorporating Rites and Rights means that the data must have a maturity or quality (or at least a labelling), to enable entering the next quality phase or system. Rites and Rights must both be used together to successfully design for inputs and outputs. These Rights and Rites can be applied to other data driven technologies as well. The Rites are as follows: rite-approach (this is about Rights); rite-inclusion; rite-design; rite-protections; rite-communications; rite-feedback and rite-implementation which are the KPIs and the keys to ehealth technology success.

The IGF session report, written by the DC, noted the following:

Key Take-Aways:
"A rich spectrum of issues were highlighted for international collaboration for ehealth, mheath and mental health. Muli-stakeholder awareness of issues faced by public and private sector developers and deliverers of healthcare, patients, technical community for quality internet, legal and finanial community with Access for All must be facilitated by the UN agencies and especially from UN IGF, UN ITU with WHO.

Covid 19 has accelerated the investment in ehealth and mhealth over the past two years in an already highly invested sector. There is need for rapid forward thinking policy making to provide guidelines, education and awareness for development and outputs that are safe, inclusive, ethical and have no harms. The managememt of data must consider the Rights of Passage of data moving from one system or data base to another &change of purpose of data."

"Calls to Action

Urgent need for policies for collaboration on medical data sharing locally, nationally and internationally for public health for Covid19 and for ehealth development. Data Sharing Enabler systems must be developed for emergency situations such as Covid19 pandemic. Data Anonymity policies should be developed quickly for effective international data sharing.

Quality internet for ehealth and mheath for telehealth, wearables, administration for public and private needs with citizen support for onboarding including education and skills development for ease of access."

"Session Report

The speakers for the session presented insights from their articles from the United Nations Internet Governance Forum recognized international, multi-stakeholder Dynamic Coalition on Data Driven Health Technologies 2021 Book: Health Matters, Technologies Driving Change in Healthcare, A Community of Thought. The book of articles is found @webpage DC DDHT under Intersessional Work of UN IGF Dynamic Coalitions, for free download.

The writers / speakers were: Alex Buckham on "Surveillance and mental health" ; Frederic Cohen with "Robotization to renew our economy in a post pandemic period" and "Biotechnologies to support humanity"; Jörn Erbguth with "Inherent limits of use of AI (deep learning) in healthcare" ; Dr Galia Kondova and Amala Arockia on "Blockchain and healthcare data, current developments" ; Dr Christine Tan on "Digital technologies for new healthcare applications under Covid-19" ; Vivien de Tusch-Lec (speaker) Dr John Allen, Dr Carina Tyrrell (team lead), Dr David Holbrook, Fergus Hay, Dr Annalisa Jenkins, Shabir Chowdhary Dr Laila Samady-Mustad, Eric Kostegen on "Investing in technologies driving change in healthcare"; Herman Ramos on "Health data, exploring the adoption of the internet of things in healthcare" and "The implication of the digitization of healthcare on data protection and security" ; Amali De Silva-Mitchell on "Cloud technology and its impacts for healthcare technologies on the internet", "The role of statistics in healthcare", "The age of telehealth, internet a partner for resilent economies", "Quantum's impact on the culture of technology for healthcare on the internet", "The UN Sendai Framework, risk management considerations for mobile and ehealth initiatives on the internet", "Plato's modern AI Humanist Society", "An approach to addressing children's rights in an AI dominated society on the internet" and mentioned were "Seven Rights / Rites of Data Passage".   Articles spoken for were from Emma Slade on "Ethics and technology, reflections of a Buddhist nun" and Ashvini Sathnur on "Health matters, driving change in healthcare, book on artificial intelligence".

The diversity and depth of the topics presented, provided the audience with a rich insight in to the technologies and issues driving change in the healthcare field, as well as issues that should be considered for the future. Quality internet is Key for effective delivery and servicing. Data sharing paired with privacy are critical areas for international and regional collaboration to enable emergency response, building of effective pharma-care products, devices, services etc. The audience noted future work in this area as critically important.

The DC deliberated matters on ethics, ESG (environment, social, governance), branding, risk management, value propositions for multi-stakeholders , speed, trust and accessibility amongst other relevant issues through it's workshops and discussions and suggests seven areas for attention when developing healthcare and data systems which are called Data Rights/ Rites of Passage: 1) Multistakeholder Approach, Context and Intent 2) Diversity and Inclusion 3) Designs (including Green) and Data Management and Ethics 4) Protections, Privacy, Security 5) Communications Human, Computer and Interaction there-of, Interoperability and Connectivity

6) Feedback, Risk Monitoring and Bettering 7) Attention to Delivery, Service and Maintenance with Onboarding.

Wearables and the medical internet of things will proliferate for the benefit of patient specific centered medicine, outpatient services and preventative medicine for the future and the use will be enhanced by 5G and 6G+ communications devices which require a quality internet. AI will get embedded on a large number of devices and the issues of bias and quality outcomes need to be managed effectively with a human touch.

Over surveillance of society through device and communications and the associated data profiles must be managed with compassion, knowledge that mistakes can occur, so an open mind is required and deep insight applied for fairness and no harms which can include even mindfulness of the human emotion of jealousy and attention to emotional intelligence.

Robotics and biotechnology will assist but care must be taken of ethical use and right mindset applications for technologies. Block chain, cloud, hologram, nano, quantum technologies have the opportunity to assist healthcare in many areas including data management, for research, trust and speed to attainment of goals.

Technology development and service maintenance costs require financing and financial investment is predicted to grow significantly. However, at the innovation stage financing may be still difficult to secure and new collaborations through P3 and other financial innovations will be of economic and social benefit.

Human society is not isolated, nor uniform and the creation of equal, fair, non-harms access for disabled, elderly, youth, gender, children, dis-advantaged, unconnected, low technically skilled and all segments of society including animal and plant medical health must be addressed (host country Poland) by an Internet United."

 The Key Take-Aways, Call For Action and Session Report are found on the IGF website.

8. Dynamic Coalition's Partnership & Participation Activities

8A. Collaboration with the International Telecommunications Union ITU

ITU WSIS Forum 2021 High Level Track Facilitation Session #3: Bridging the Digital Divide

Session Number 3 Facilitator was Amali De Silva-Mitchell. The Panelists were high-level officials of government from Europe and Asia. The outcomes were a call for international collaboration to connect the last mile and particular brought up the issues for land locked nations, smaller islands and minority communities in the first world. Also noted were the new dimensions created with the management of data driven new technologies. There was a call for public private partnerships, as the traditional private sector market driven approaches to connectivity were too slow to meet the demands of eGovernment, eHealth and local business. A need to develop innovative financing measures was highlighted.

ITU WSIS 2021 Forum Chairman's call with the High-Level Track Facilitators: Quantum ethics

Amali De Silva-Mitchell brought up that it was not too early to look at the Ethics of Quantum Technologies, and especially the issues of Quantum Entanglement.

ITU AI Technologies Car Symposium: flat seat backs, for transport of pregnant mothers

During the WSIS 2021 Forum, various sessions highlighted the need for access to health services to rural communities and one issue was the lack of transport for mothers, about to deliver their children, to get to a hospital when in distress. The public call, made to the chat was to design cars, so that they can have at least one seat that can lie fully flat and have some basic amenities such as cold storage for medications.

Other Contributions to The Discussions:

The DC DDHT also contributed to conversations hosted by ITU Economics by mentioning the need to manage E-waste; comments and feedback on E-health for Smart Cities; comments for the work shop on the Approach to Design of Artificial Intelligence Medical Applications and Systems with a call to look at full cycle design and integration.

For the ITU Council Working Group on the Internet on the subject "The role of the Internet and international Internet-related public policy in mitigating the impact of COVID-19 and possible future pandemics" the following points were made: Quality internet is critical to provide good ehealth care; the opportunities of ehealth through the use of Quantum Technologies; sharing from privileged countries their data, research and approaches with others; translating excellent online medical resources to the public for use in other countries (aid); need for health systems to be prepared for emergency situations reference the UN Sendai Framework for Risk Management.

8B. Collaboration with EuroDiG

EuroDIG 2021 Big Stage Event Working With Fintech, Challenges and Opportunities: Issues of on boarding for health insurance and telemedicine were noted. The work of the ITU working group on this subject matter was mentioned and approaches to getting the public and women engaged and skilled to onboard with the use technology was discussed. The Session was moderated by Amali De Silva-Mitchell and guest speakers were Jenny Sicat-Crabbe and Paloma Castro Martinez.

EuroDIG 2021 Work shop 2; Benefits and Challenges For Unleashing Potential of Quantum Technologies. The DC participated on the organizing committee for a successful introduction to the public on the technology.

The DC also provided input for the Euro DIG public consultation on the proposed structure for the new multistakeholder high-level body envisaged in para 93(a) of the UN Secretary General's Road Map for Digital Cooperation.

8C. Other

DC Member Participation with Pew Research Center & Elon University Survey Reports

Amali De Silva-Mitchell made contributions to the following reports: Will Online Forums Become More or Less Toxic? Imagining the Internet, The Future of Ethical Design; The Future of Digital Spaces & Their Role in Democracy.

Letter in the newspaper, United Kingdom, The Independent March 21, 2021,

by Amali De Silva-Mitchell

"Be prepared-

I refer to your article, 'Start preparing for next pandemic now, experts warn Boris Johnson' (20 March). A global-focused Britain should bring together the international quantum technology community, to harness the power of that technology, for global good, for health.

Speed and specification of the delivery of solutions for healthcare are critical, as it is going to be the driver of human productivity. Hence, the global interconnected economic society and its future prosperity would be supported by such a collaborative initiative."

This is a call for international collaboration with the development of medications, critical in this time of the Covid-19 pandemic and for other products and services within healthcare.

9. Recommended Policy Items for 2021

Collaboration at all levels, maintenance of high ethical standards, awareness of the quality of the internet and it's associated devices on the Medical Internet of Things, Wellness Internet and the regular internet of things with an understanding of the limitations of data quality is important. The need for financing across stake-holder groups, end-users, service providers, sectors, countries and so forth, is critical for successful patient centered health outcomes for the future and reliance on market driven forces itself, may not be sufficient for the global health economy.

No group can work in isolation, so a holistic, multi-stakeholder view to the internet, its providers and its users, will provide for the best economic and resilient outcomes for the user, supplier of service and the global economy.

However, attention to the small groups, the underserved, the remote and inaccessible, the vulnerable, the special groups such as elderly, sick and disabled, children, women and so forth, groups that are typically not represented or heard is critical. Put together, all these groups may add up to the majority of the potential users of the global internet and the internet does not operate typically as a silo. Issues such as the interconnectivity of various aspects of the internet, has never been highlighted so well, as it is today and the risk is in the weakest link within holistic collaboration, as it is, in any system.

10.Vision for 2022 Intersessional Work

For 2022, the IGF Annual Meetings are scheduled for Ethiopia. The intersessional work of the DC will result in a summary presentation at those meetings and may include additional guest speakers. The Youth Membership of the DC are expected to take a significant role on site.

The DC expects to develop a tool kit to be launched at IGF Ethiopia 2022 meetings, which will assist a citizen to provide neighborhood support for the on-boarding of community members who have a lack of skills with using the internet, telemedicine, internet services and devices.

The work tracks currently proposed for 2022 are:

  a. EHealth & Youth
  b. Accessibilities & Disabilities, Evolving Technologies in partnership with IGF DC members for Accessibilities & Disabilities
  c. Collaboration, Finance & Mis-information in Healthcare
  d. Business Technologies in Healthcare
  e. Indigenous eHealth

The Dynamic Coalition will have a Part 2 (2022) to the Dynamic Coalition Book: Health Matters, Technologies Driving Change in Healthcare, A Community of Thought 2021. Contributions are welcome.

The DC will also continue to collaborate with the ITU, EuroDIG and other Dynamic Coalitions, Best Practices Forums and so forth of the IGF.

11. Administrative Matters Update

Our DC membership has been growing. The depth and breadth of conversation as been very interesting. We believe that the awareness of our new DC in its second year and its work, was enhanced through participation at events within the United Nations eco-system.

We created topical policy tracks, with leads for each of these tracks, who will lead and enable in-depth discussions for the future. The terms of reference were updated to reflect this.

The stakeholder group of the DC will be expanded, to provide a larger pool of dedicated members that can lead the DC for the future. Membership in to this category will entail two years of active participation with the DC.

As always, the DC is open to membership from the global public through membership of the DC email list.