



# **WSIS FORUM 2021**

**Starting from January**

**Final Week 17-21 May 2021**

WSIS Forum 2021

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Outcome Document

International  
Telecommunication  
Union  
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Switzerland

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# WSIS Forum 2021

## Outcome Document

*ICTs for Inclusive, Resilient and Sustainable Societies and Economies with  
Action Lines for Achieving Sustainable Development Goals.*

(as of 16 June 2021)



## Disclaimer

Please note the WSIS Forum 2021 Outcome Document is a compilation of the outcomes of the sessions (Thematic Workshops, Country Workshops, Action Line Facilitation Meetings, High-Level Policy Sessions, and many more) submitted to the WSIS Secretariat by the organizations responsible for their respective sessions. ITU does not hold any responsibility for the outcomes provided by the organizers of the sessions for the WSIS Forum 2021.

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# WSIS Forum 2021: Introduction

The World Summit on the Information Society (WSIS) Forum 2021 was organised in a virtual format by ITU as the lead coordinator, in collaboration with the co-organisers UNESCO, UNCTAD, and UNDP, and in close collaboration with more than 30 UN agencies. The WSIS Forum 2021 provided an inclusive global multistakeholder platform for all to exchange knowledge and information, enhance collaborative networks, and to share best practices in the information and communication technologies (ICTs) sector.

The Forum's theme this year, "ICTs for Inclusive, Resilient and Sustainable Societies and Economies (WSIS Action Lines for achieving the Sustainable Development Goals)" created an opportunity for WSIS stakeholders to share their efforts and innovative ideas to leverage the (ICTs). Also, it built momentum to advance action-oriented dialogue on efforts in the context of COVID-19 recovery and initiatives to implement the WSIS Action Lines to advance the United Nations' Sustainable Development Goals (SDGs).

Over the course of seventeen weeks (since January 2021), the WSIS Forum 2021 hosted more than 250 sessions, including workshops, live interviews, WSIS TalkX, the high-level track, Hackathon and many more. The WSIS Forum 2021 garnered a lot of interest and excitement worldwide – with a cumulative attendance of over 50,000 attendees (*zoom room, zoom recording, Facebook Live videos, YouTube, and other format*) over 185 countries from Government, Civil Society, Academia, Private Sector, the UN to exchange discourse on ICTs emerging issues to strengthen information and knowledge societies.

WSIS Forum 2021 was also an opportunity for partnerships to be forged and valuable tools and initiatives to be launched. The full list of Official WSIS Forum 2021 Outcomes Documents and Publications are available on the WSIS Forum 2021 website (<https://www.itu.int/net4/wsis/forum/2021/>):

- WSIS Forum 2021: Outcome Document
- WSIS Forum 2021: High Level Track Outcomes and Executive Brief
- WSIS Action Lines Contributing towards Accelerated action and transformative pathways: realizing the decade of action and delivery for sustainable development
- WSIS Forum 2021 and SDG Matrix
- WSIS Stocktaking Report 2021 (Global)
- 6 Regional WSIS Stocktaking Reports 2020-2021
- WSIS Stocktaking: Success Stories 2020 (WSIS Prizes 2021 Winners)
- WSIS Stocktaking ICT Case Repository: The Coronavirus Response Special Report

WSIS Forum 2021 was made possible through the generous support of its strategic partners:

- United Arab Emirates - Platinum Partner
- Saudi Arabia (Kingdom of) - Gold Plus Partner
- Qatar - Gold Partner
- Japan - Partner for Specific Activities
- The Institute of Electrical and Electronics Engineers (IEEE) - Partner for Specific Activities
- Huawei Technologies, Ltd. - Partner for Specific Activities
- Rwanda (Republic of) - Contributing Partner
- Switzerland (Confederation of) - Contributing Partner

- Internet Society (ISOC) - Contributing Partner
- International Federation for Information Processing (IFIP) - Supporting Partner
- Global Coalition on Aging (GCOA) - Supporting Partner

# Open Consultation Process

WSIS Forum 2021 began in January and culminated in the final week from 17 to 21 May 2021. The Agenda and Programme of the Forum were built on the basis of the submissions received during the Open Consultation Process (OCP). The Open Consultation process aims at ensuring a participatory and inclusive spirit of the Forum. This process actively engages multistakeholders in the preparatory process to ensure broad ownership and further improvements of the Forum. The Open Consultation Process included a collection of inputs from regional other WSIS related events.

## **Phase I: Virtual Launch of the Open Consultation**

The virtual launch of the open consultations took place on **Wednesday 9 September 2020, 15:00–16:00 CEST**. The recording is available at the following link: <https://bit.ly/37NfbFx>

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## **Phase II: 1st Virtual Meeting**

The 1st Virtual Meeting of the open consultations took place on Friday 6 November 2020, 10:10 to 11:10 CET during IGF 2020. The recording is available at the following link: <https://www.youtube.com/watch?v=A8d0fK7etVI>

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## **Phase III: 2nd Virtual Meeting**

The 2nd Virtual Meeting of the open consultations took place on **Monday 1 February 2021, 14:00 to 15:00 CET**.

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## **Phase IV: Deadline for Submissions of Official Contributions and Binding Requests for Workshops**

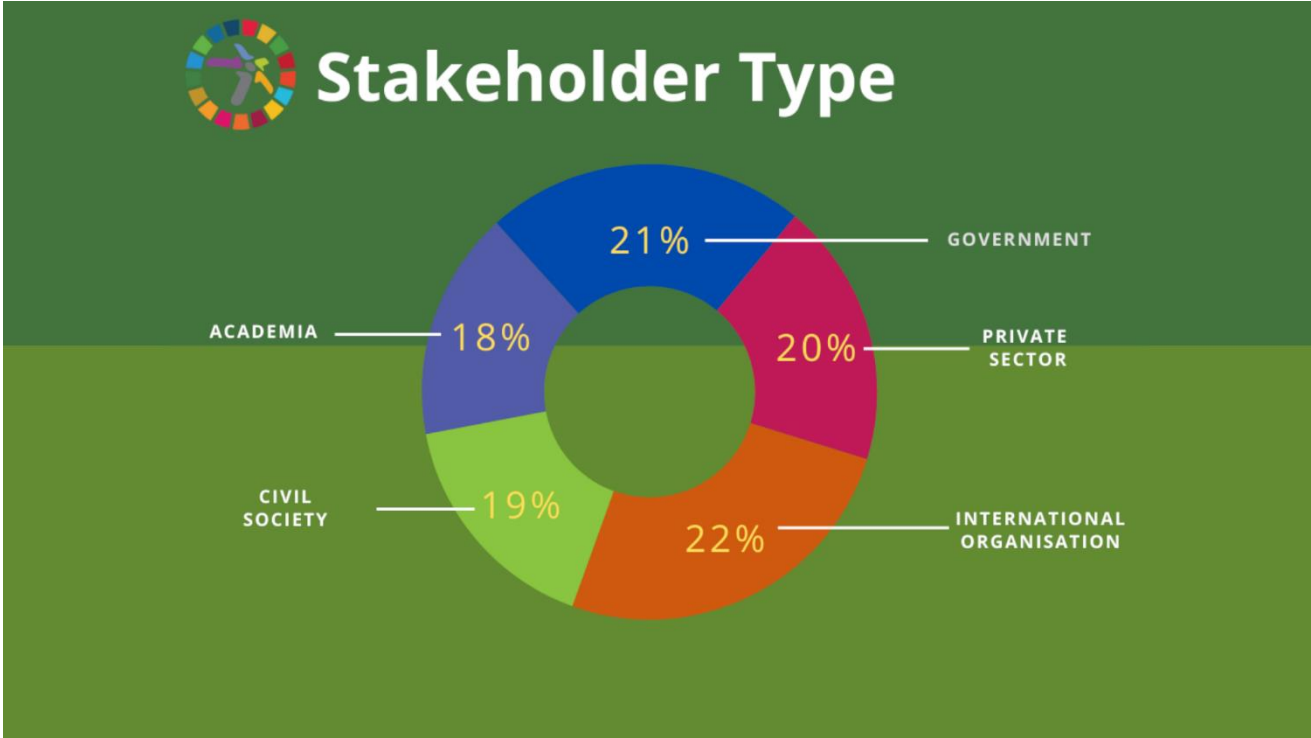
The deadline for OCP submissions was 8 March 2021

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## **Phase V: Final Brief**

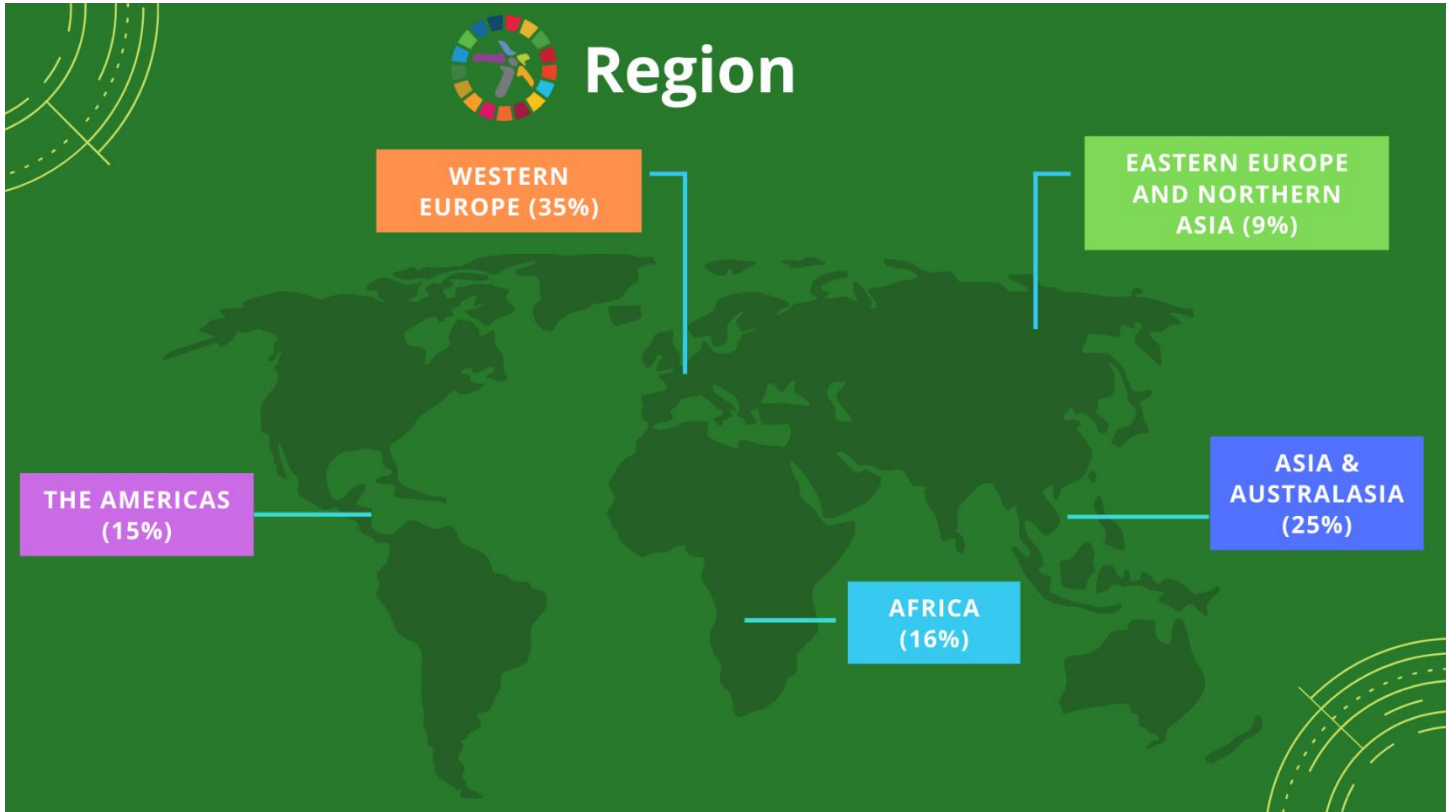
The Final Brief of the open consultations took place on **Monday 19 April 2021, 14:00 to 15:30 CEST**.

OCP Submissions by Stakeholder Type:



*Please note that the agenda and workshops of the WSIS forum includes the engagement of more than 32 United Nations (UN) Agencies, including UN Regional Commissions. The statistics above represent the submissions and suggestions received through the Open Consultation Process of the WSIS Forum 2021.*

## OCP Submissions by Region



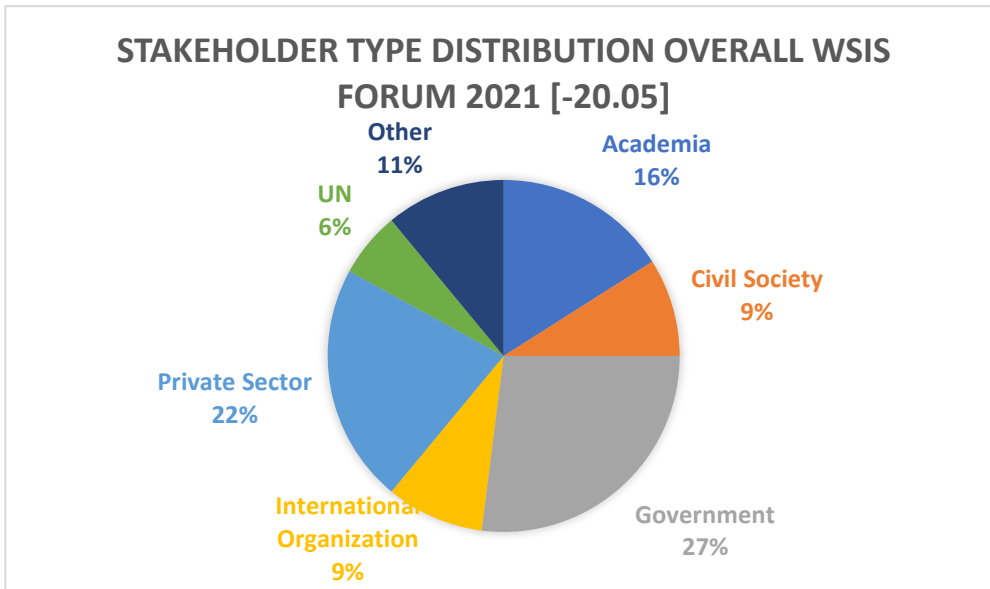
*It is important to note that about half of submissions from Western Europe came from the headquarters of Organizations with an international presence.*

All related information can be found at: <https://www.itu.int/net4/wsis/forum/2021/Home/Consultations>

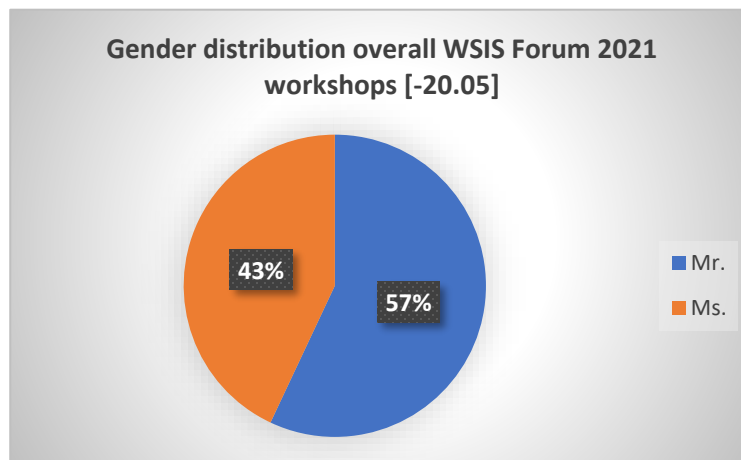
# Participation at the WSIS Forum 2021

Key facts and figures:

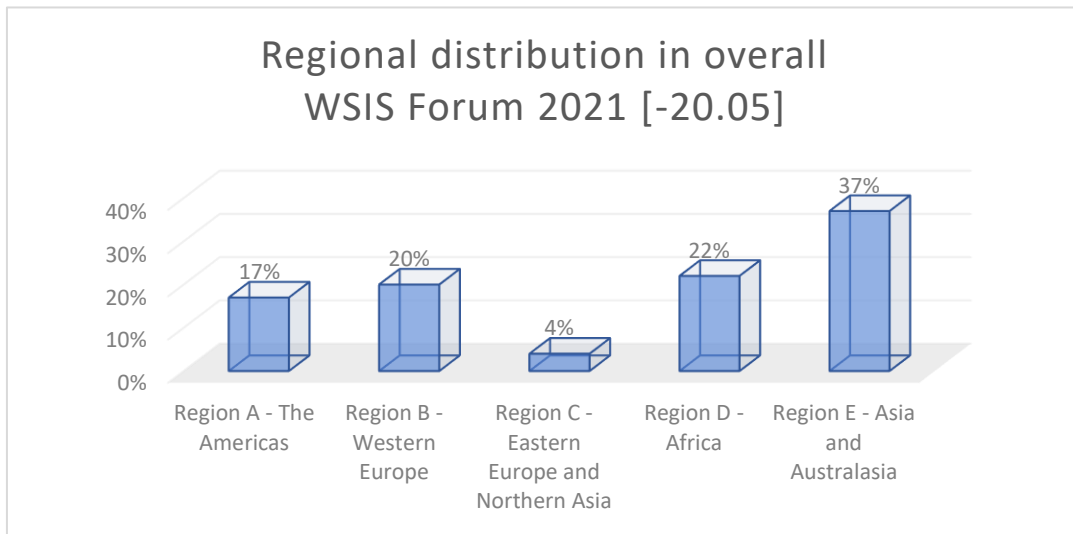
Stakeholder type:



Gender distribution:



Regional distribution:

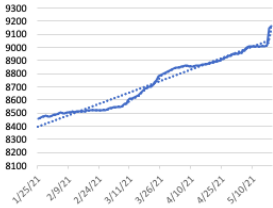




# Social Media at the WSIS Forum 2021



Followers Data  
JANUARY 26TH – MAY 19TH  
Followers GROWTH



**GROWTH**  
8.29%

Lifetime Total Follows  
Lifetime: The total number of people who have followed your Page. (Unique Users)

Linear (Lifetime Total Follows Lifetime: The total number of people who have followed your Page. (Unique Users))

### Insights

Last 28 days: Apr 22 - May 19

People Reached	28,950	+11%
Post Engagements	5,218	+14%
Page Likes	243	+9%

### Women

37% People Reached

62% People Reached

23%

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### VIDEOS

Video Insights: Apr 1, 2021 - May 20, 2021

Performance: 7 METRICS FOR ALL YOUR VIDEOS FROM #1-100 COMPARED TO THE PREVIOUS 90 DAYS

33.5K Views

14.2K Views

13.8K Views

14.1K Views

14.2K Views

14.3K Views

14.4K Views

14.5K Views

14.6K Views

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14.8K Views

14.9K Views

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19.5K Views

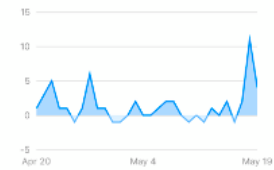
### DATA January 26th – May 19th

VIDEOS #	TOTAL REACH	TOTAL VIEWS
191 VIDEOS	95676	28355

### Follower Breakdown

1,851 followers  
+2.2% vs Mar 21 - Apr 19

Growth  
Overall  
Follows  
Unfollows



1,851 followers

+2.2% vs Mar 21 - Apr 19

**GROWTH**  
2.2%

### Accounts Reached

963 accounts  
+3.9% vs Mar 21 - Apr 19



Impressions  
+16.9% vs Mar 21 - Apr 19

7,865

Account Activity  
613

Profile Visits  
+14.7% vs Mar 21 - Apr 19

576

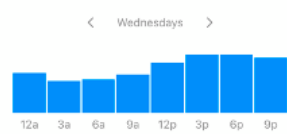
### Gender



54.5% Women

45.5% Men

### Most Active Times



### Top Locations

Cities	Countries
Santo Domingo	3.8%
Geneva	3.2%
Dubai	3.2%
Abu Dhabi	2.0%
Jakarta	1.6%

### Age Range

All	Men	Women
13-17	0.9%	0.9%
18-24	18.0%	18.0%
25-34	42.2%	42.2%
35-44	24.4%	24.4%
45-54	9.8%	9.8%
55-64	3.0%	3.0%
65+	1.7%	1.7%



# Instagram STATS

DATA : 20 APRIL – 19 MAY 2021

MAY 2021 SUMMARY

Tweets  
74

Tweet impressions  
227K



# Twitter STATS

DATA : 22 APRIL – 20 MAY 2021

Profile visits  
15.6K

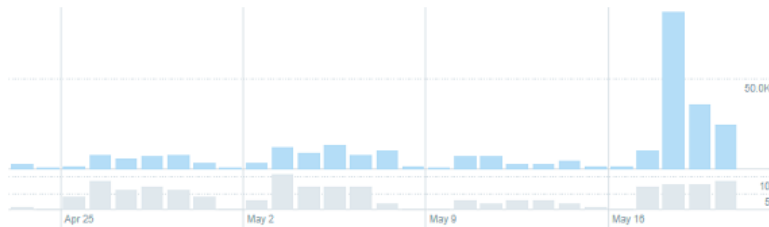
Mentions  
401

New followers  
188

## 28 day summary with change over previous period



Your Tweets earned **274.6K impressions** over this 28 day period



## Engagements

Showing 28 days with daily frequency



On average, you earned 15 link clicks per day



On average, you earned 14 Retweets without comments per day



On average, you earned 23 likes per day



On average, you earned 1 replies per day

# Opening Segment

The Opening Ceremony set the priorities of the WSIS Forum 2021, bringing forth a wide range of topics within the Global Information and Knowledge Societies while emphasizing the role of Information and Communication Technologies (ICTs), WSIS Action Lines in particular, regarding the recently adopted Sustainable Development Goals (SDGs). In this way, the WSIS Forum 2021 built upon the outcomes of the UN General Assembly Overall Review of the implementation of the WSIS outcomes (UNGA Resolution 70/125), which recognized the necessity of holding this Forum on an annual basis and called for a close alignment between WSIS and the SDG processes.

The WSIS Forum 2021 therefore served as a key Forum for discussing the role of ICTs as a means of implementation of the SDGs and targets, with due regard to the global mechanism for follow-up and review of the implementation of the 2030 Agenda for Sustainable Development (UNGA Resolution A/70/1). The WSIS-SDG Matrix, developed by UN WSIS Action Line Facilitator and presented at the WSIS Forum 2015, served as the mechanism to map, analyse and coordinate the implementation of WSIS Action Lines, and more specifically, ICTs as enablers and accelerators of the SDGs.

The ceremony began with opening statements from the host, co-organizers, partners and representatives of stakeholders engaged in the WSIS process.

The Opening Ceremony brought together the Heads of UN agencies, and the Platinum and Gold Plus partners of the WSIS Forum 2021 who discussed the role of ICTs in achieving SDGs in line with all the WSIS Action Lines

The COVID-19 pandemic and its impact has been discussed extensively during the opening ceremony of the WSIS Forum 2021. The speakers also highlighted the impact of COVID-19 pandemic on learning, business, government services, and healthcare among others. Half of the world population is still unconnected, and the COVID-19 pandemic puts increased burden. There is also a great need for aiding women and youth in business, as well as the school systems in developing and underdeveloped countries.

## **Key achievements, announcements, launches, agreements, and commitments**

- More than 100 Ministers, Deputy Ministers, and Heads of Regulatory Authorities came together to address the role of ICTs for SDGs during the High-Level Policy Sessions at the WSIS Forum 2021
- WSIS Prizes at the WSIS Forum 2021 received a record number of submissions with 1.3 billion votes cast
- As UNCTAD completes its chairmanship of the UNITED Nations Group on the Information Society (UNGIS), UNESCO prepares to assume chairmanship in 2021-2022
- Commission on Science and Technology for Development (CSTD) reiterates the role of digital technology in combatting the COVID-19 virus
- UNESCO is currently working on recommendations on the ethics of Artificial Intelligence

- UAE becomes one of the first countries to effectively contain the spread of COVID-19 virus, to launch the recovery phase and gets ready to accept people from around the world at the EXPO 2020 in Dubai
- Saudi Arabia shares its applications and platforms developed during the pandemic such as *Madrasati* platform for students, and *Tawakkalna* application to contain the spread of COVID-19

### Debated Issues

- It is crucial to leverage the use of ICTs in the health sector. The benefits of ICTs as tools in this sector, particularly in responding to the COVID-19 pandemic proved effective
- The digital divide limits the Least Developed Countries (LDC) in their response to the challenges of today, for example, the climate change
- Access to education has been limited with the introduction of lockdowns during the pandemic
- Freedom of expression, cultural and linguistic diversity have to be preserved
- Digital technologies use in achieving common humanitarian goals
- Increase interoperability and harmonization of tech solutions among countries
- It is important to develop the rural e-commerce, provide access to the farmers to increase efficiency
- There has to be a collective and holistic approach
- Legacy industrial models are still used in developing world; there is a need for sharing the best practices and increasing partnerships
- The industrial development has to be sustainable
- Need for removing infrastructure barriers

### Quotes

*“ICTs as a force for good for everyone”*

- Mr. Houlin Zhao, Secretary-General, International Telecommunication Union (ITU)

*“To ensure that technology serves the humankind”*

- Mr. Xing Qu, Deputy Director-General, United Nations Educational, Scientific and Cultural Organization (UNESCO)

“The positive transformative potential of ICT has become even more apparent with the COVID-19 crisis; however, the pandemic is also exacerbated existing inequalities across multiple dimensions, including, gender and age.”

- *Olga Algayerova, Undersecretary General, UNECE*

“The promotion of rural ecommerce accelerates the transformation for mobile phones in new agricultural farming tools.”

- *Qu Dongyu, Director General, FAO*

“The WSIS forum's ICT for development theme is timely and will be essential in achieving 2030 Agenda, giving the potential of the digital technologies and business models to spring to development.”

- *LI Yong, Director General, UNIDO*

### **Overall outcomes of the session**

- Half of the world population is still unconnected; there is a need for addressing the digital divide in collaboration with the stakeholders
- No single organization has the experience or capacity to tackle the existing issues in the ICTs domain alone; therefore, building partnerships and cooperating at local, national, regional, and international levels is key
- Women-owned and youth-led firms are the hardest hit; providing affordable and reliable connectivity to these groups is a must
- ICTs help us stay connected but it is not allocated evenly which adds to the inequalities within and between countries

### **Emerging Trends related to WSIS Action Lines identified during the meeting**

- The fourth industrial revolution and emerging tech: Artificial Intelligence (AI), Internet of Things (IoT), advanced Robotics, 3D printing
- Healthcare applications: COVID-19 contact tracing apps
- E-learning platforms and applications and their use in school systems
- Extensive use of ICTs in government services
- Ethics of ICTs, e.g., AI ethics for preserving fundamental values and human rights

Big Data: ICTs facilitate gathering data in a transparent, an uncontested way this is critical for the monitoring of environmental performance, including by facilitating access to information to all stakeholders involved.

Blockchain: The garment industry which creates a large environmental footprint has developed a toolbox based in blockchain technology, which will promote sustainable supply chain operations and a collaborative platform to all those in the garment industry.

### **Suggestions for Thematic Aspects that might be included in the WSIS Forum 2022**

It could be inferred that the speakers of the session highlighted the most pressing issues and the emerging trend in the ICTs for SDGs field. The thematic aspects that could be included in the WSIS Forum 2022 are as following:

- Emerging technology and the ethics
- Industrial revolution 4.0
- The role of 5G in development sector
- Use of ICTs for healthcare and emergency situations
- Role of gender and the youth in ICTs for SDGs

# High-Level Dialogues

## Ageing in a Digital World: From Vulnerable to Valuable

**Workshop Name:** Ageing in a Digital World: From Vulnerable to Valuable

**Workshop Link:** <https://www.itu.int/net4/wsis/forum/2021/Agenda/Session/346>

**Organization:** ITU/WSIS/GCOA

**Date:** Monday 17 May

**1) Relevance with the WSIS Action Lines – please specify the Action Lines C1 to C11**

C1, C4, C5, C6, C7, C10, C11

**2) Did your workshop highlight any issues related to COVID-19? If yes, please explain.**

Yes

**3) Key achievements, announcements, launches, agreements, and commitments**

Older Persons have always been an asset to their families, communities and societies. Nevertheless they're being perceived as a vulnerable group dependent on younger generation. The digital world can no doubt enable older persons to participate and contribute to society, turning this misconception of vulnerable into valuable. ICTs, if provided in accessible and user friendly formats and platforms, can be valuable enablers for older adults, helping them to overcome more easily age related limitations, including hearing, dexterity and visual impairment.

**4) Main outcomes highlighting the following:**

**I. Debated Issues**

- Please capture highlights of the main issues discussed and interactions with audience
  - To ensure a level playing field for the older persons. As more of our life goes online, it is important to ensure the increasingly older population have equal access to the online Community.
  - To build an inclusive society. Technologies shall be developed and designed in accordance with universal design principles, which are digital accessibility standards and requirements that will ensure that all the users can overcome any built-in barriers.
- Please highlight key achievements and challenges shared by the audience and/or panellists
  - This report highlights the amazing role that ICTs can play in creating fully inclusive societies, where the digital inclusion and digital knowledge used by older adults provides

transformational avenues for them to remain as active participants and valuable contributors to socio-economic development worldwide.

- Age discrimination can actually make it more difficult for older persons to really reap all the benefits that we see from new technologies.

## **II. Quotes**

- Stephen Bereaux - ITU: Our world is digital, and information and communications technologies or ICTs, if developed in an accessible format with universal design in mind, will not only be powerful enablers for empowerment of all people, but also for the creation of inclusive and age-friendly environment suitable for healthy life conditions of today and tomorrow's older adults.
- Daniela Bas, UNDESA - They (digital technologies) can reduce inequalities, otherwise they can increase the divide and therefore inequality, so there are many aspects, we have to consider here. But, all in all, if we put the right infrastructures and the right knowledge, digital technologies and technologies in general and assistive technologies are very powerful tools

## **III. Overall outcomes of the session highlighting**

- main conclusions reached during the discussion  
In an interconnected world information and communication technologies or ICTs can empower and contribute to healthy independent and fulfilled lives of present and future older adults, in line with the central promise of the 2030 agenda for sustainable development that's to leave no one behind.
- the vision for implementation of WSIS Action lines beyond 2015  
This WSIS Session aims at raising awareness among policy makers and all public-private sector stakeholders on how the mega-trend of ageing is a great opportunity itself, dependent on age-friendly digital environments for all.

## **5) Main linkages with the Sustainable Development Goals (please specify the SDGs)**

Goal 3, Goal 4, Goal 10, Goal 16

## **6) Emerging Trends related to WSIS Action Lines identified during the meeting**

The Mega-Trend of Ageing – long lives to 100 as a matter of course and more old than young in all societies as they modernize -- is one of the powerful global trends of our 21st century, if still underappreciated, too often misunderstood and certainly under recognized. During 2021, however, the global community led by the UN and the WHO launched the Decade of Healthy Ageing, ITU-WSIS continued its ground-breaking inclusion of Older Persons in its Summit and the world recognized the society-wide impact of the particular risks of older adults as a consequence of the Covid-19 Global Pandemic. This “Ageing in a Digital World: from Vulnerable to Valuable” High Level Dialogue will raise awareness among policy makers and all public-private sector stakeholders on how the mega-trend of ageing is a great opportunity itself, dependent on age-friendly digital environments for all.



**7) Suggestions for Thematic Aspects that might be included in the WSIS Forum 2022**  
N/A

## Announcement of the Winners of the WSIS Forum 2021 Hackathon and the WSIS Forum 2021 Healthy Ageing Innovation Prize

**Workshop Name:** Announcement of the Winners of the WSIS Forum 2021 Hackathon and the WSIS Forum 2021 Healthy Ageing Innovation Prize

**Workshop Link:** <https://www.itu.int/net4/wsis/forum/2021/Agenda/Session/452>

**Organization:** WSIS/GCOA

**Date:** Monday 17 May

**1) Relevance with the WSIS Action Lines – please specify the Action Lines C1 to C11**  
C3, C4, C5, C7, C10

**2) Did your workshop highlight any issues related to COVID-19? If yes, please explain.**  
Yes

**3) Key achievements, announcements, launches, agreements, and commitments**

The Ageing Better with ICTs online hackathon has ideated ICT solutions that respond to challenges faced by older persons and that may have surfaced or been exacerbated by the COVID-19 pandemic. This Hackathon was initiated and run in collaboration with The Global Coalition on Aging (GCOA), and in collaboration with other stakeholders.

This year we launched the first-ever WSIS Forum 2021 Healthy Ageing Innovation Prize focused on ICTs that specifically address the needs of people 60+ to achieve and sustain an active and engaged life as they age. WSIS Forum 2021 is pleased to have initiated this special prize together with the Global Coalition on Aging, and in collaboration with other stakeholders. More than 80 projects were submitted for this Prize, with a subsequent selection of 12 Finalists representing countries from around the globe. An eminent Panel of Judges, listed below, took part in the final selection. The Winner received recognition at this WSIS Forum High-Level Session as well as a cash award of \$1,000 USD.

**4) Main outcomes highlighting the following:**

**I. Debated Issues**

- Please capture highlights of the main issues discussed and interactions with audience  
- Our goal is to create awareness collaboration and action in the in the area of healthy aging and aging well. A special prize on healthy aging innovation was launched this year.

-Winner Challenge Area 1 "Alzheimer's Disease and Cognitive Decline" is: SYNC UP from India.

-Winner Challenge Area 2 "Frailty" is: ELDERLY FALL DETECTION from India

-Winner Challenge Area 3 "Transportation and mobility" is: SMART WALKING STICK from India

-Winner Challenge Area 4 "Financial tools for longevity" is BEVOL CLUB FOR ELDERLY CARE from the Syrian Arab Republic.

- Please highlight key achievements and challenges shared by the audience and/or panellists

- The healthy aging prize is about intertwining the opportunity of technology and aging together to help us live longer and better. WSIS started receiving nominations on the 15th of February and we receive more than 80 submissions.

- This year WSIS Forum 2021 launched the first ever virtual hackathon Aging Better with ICT in collaboration with the Global Coalition on Aging. Registration open February 22 and over 1100 hackers from nearly 50 countries started working on ideas for challenge areas. Participating teams have developed ideas and demonstrated proof of concept in one of four challenge areas:

Alzheimer's Disease and Cognitive Decline

Frailty

Transportation and Mobility

Financial Tools for Longevity

## II. Quotes

- Please provide two important quotes from the session and the names & organisation of the person you are quoting

- Joe Coughlin, MIT AgeLab - And the fact is, is that, having this competition is about more than picking technologies that are going to be winners in the marketplace for improving people's lives, it is about railing attention to a grand convergence, the grand convergence of demographic change, globally, with the grand convergence of technology, coming from a completely different direction.

- Stephen Johnston, Aging2.0 - Globally, 50 million people, plus have dementia and there's not a lot of progress on kills but there's some real innovation and especially amongst the young people around the world. One of the things that we were so impressed with was the maturity of the ideas at he early age.

## III. Overall outcomes of the session highlighting

- main conclusions reached during the discussion
  - Age Care Technologies won the the first ever healthy aging innovation prize.
- the vision for implementation of WSIS Action lines beyond 2015
  - WSIS Team looks forward to increasing the number of nominations for the healthy aging prize next year.

**5) Main linkages with the Sustainable Development Goals (please specify the SDGs)**

Goal 1, Goal 3, Goal 4, Goal 8, Goal 16

**6) Emerging Trends related to WSIS Action Lines identified during the meeting**

Blend innovation and technology for the purpose of healthy aging.

**7) Suggestions for Thematic Aspects that might be included in the WSIS Forum 2022**

Increase the number of nominations for next year's Prize.

## Appreciation Ceremony for WSIS Forum 2021 Partners and the High-Level Dialogue with partners

**Workshop Name:** Appreciation Ceremony for WSIS Forum 2021 Partners and the High-Level Dialogue with partners

**Workshop Link:** <https://www.itu.int/net4/wsis/forum/2021/Agenda/Session/350>

**Organization:** WSIS

**Date:** Tuesday, 18 May 2021

### 1) Relevance with the WSIS Action Lines – please specify the Action Lines C1 to C11

- C1. The role of governments and all stakeholders in the promotion of ICTs for development
- C2. Information and communication infrastructure
- C3. Access to information and knowledge
- C5. Building confidence and security in the use of ICT's
- C6. Enabling environment
- C7. ICT applications: benefits in all aspects of life
- C10. Ethical dimensions of the Information Society
- C11. International and regional cooperation

### 2) Did your workshop highlight any issues related to COVID-19? If yes, please explain.

- MIC Japan discussed the global need for digital technology has substantially increased in the wake of COVID-19.
- Huawei Technologies Co., Ltd., China discussed the massive undertaking all human societies faced in response to COVID -19 across the world.

### 3) Key achievements, announcements, launches, agreements, and commitments

- MIC Japan will invest 2 billion US dollars to promote the research, development, and deployment of secure ICT networks.
- MIC Japan discussed next generation mobile communication, 5G and 6G will be further researched and developed through collaboration between industry, academia, and government.
- China maintained a system for all medical institutions and hospitals throughout the country using network virtualization and 4G technology as it was a challenging period for several months and the start of the pandemic.

- Many AI based technologies realized during COVID-19 will soon become international standards and benefit economies worldwide.
- Rwanda Utilities Regulatory Authority (RURA) has begun construction on four national data centers, this will help create a high-speed fiber optics backbone across the country. Country wide deployment will aid in improving internet connectivity and will bring about much needed transparency and visibility to supply chains in Rwanda.

#### 4) Main outcomes highlighting the following:

##### I. Debated Issues

- n/a

##### II. Quotes

“UN SDGs’ are our common long-term goal and ensuring we are always aligned with them gives us a common purpose and impact as well as a gold partner we can proudly say that the aligning with the UN SDGs has always been not only a priority for us when thinking of action plans, but it is a permanent cornerstone as well when developing national strategies.”

- *Ms. Mashaal Ali Youef Al-Hammadi, Ministry of Transport and Communications, Qatar*

“Innovation changes the world we live in. Technical and social innovation like electrical power, online communication, artificial fertilizer all have had a profound impact and they continue to change. In particular, information and communications technology, ICT, and accessible electricity supply, among others, have long been valuable tool for treating many of the United Nations SDG’s.”

- *Dr. Maike Luiken, Vice President, Member Geographical Activities IEEE (USA)*

“Almost two decades ago at the first WSIS Forum, the international community, agreed on a shared vision of the information society and the number of concrete goals for its further development. We all agreed that ICT’s can be powerful tools for the development of our societies and economies. We also agreed that no stakeholder group alone can achieve these goals, but that we will have to work together with all stakeholders, respecting the roles and responsibilities which may be different.”

- *Mr. Thomas Schneider, Ambassador, Head of International Relations Service and Vice-Director, Office Fédéral de la Communication (OFCOM), Switzerland*

### **III. Overall outcomes of the session**

n/a

#### **5) Main linkages with the Sustainable Development Goals (please specify the SDGs)**

- SDG 8: Decent work and economic growth
- SDG 9: Industry, innovation, and infrastructure
- SDG 10: Reduced Inequalities
- SDG 11: Responsible consumption and production
- SDG 16: Peace, justice, and institutions
- SDG 17: Partnerships for the goals

#### **6) Emerging Trends related to WSIS Action Lines identified during the meeting**

- Adoption of new technologies such as satellite communication systems and internet services requires greater adoption in rural areas.
- Qatar Ministry of transport has increased promotion and support for women in STEM fields further encouraging women to pursue employment in the ICT sector, in recent years.
- MIC Japan discussed that 5G services started in March 2020 throughout Japan. 5G expansion is expected to grow rapidly in the next few years in many of the world's major economies. In addition, MIC Japan will invest 2 billion US dollars to promote the research, development, and deployment of secure ICT networks.

#### **7) Suggestions for Thematic Aspects that might be included in the WSIS Forum 2022**

n/a

## AI Readiness Check: Policy Impact, Opportunities and Challenges

**Workshop Name:** AI Readiness Check: Policy Impact, Opportunities and Challenges

**Workshop Link:** <https://www.itu.int/net4/wsis/forum/2021/Agenda/Session/352>

**Organization:** ITU

**Date:** Thursday 20 May



## Accelerating Digital Transformation of Government Services

**Workshop Name:** Accelerating Digital Transformation of Government Services

**Workshop Link:** <https://www.itu.int/net4/wsis/forum/2021/Agenda/Session/416>

**Organization:** ITU

**Date:** Thursday 20 May

### 1) Relevance with the WSIS Action Lines – please specify the Action Lines C1 to C11

- **C1** (the role of governments and all stakeholders in the promotion of ICTs for development)
- **C7** (ICT applications: benefits in all aspects of life – E-government)
- **C11** (international and regional cooperation)

### 2) Did your workshop highlight any issues related to COVID-19? If yes, please explain.

- The COVID-19 pandemic has caused an unprecedented global economic downturn. In the midst of the crisis, digital solutions facilitated continuity of work, schooling, and socialization while enhancing governments' understanding of the potential of ICTs as fundamental means to ensure universal delivery of public initiatives and services. Building more resilient digital infrastructure is a key priority for both developed and developing countries to enhance citizens' access to e-government and online social protection services.
- COVID-19 reaffirmed the importance of adopting paperless solutions to adapt bureaucratic procedures to adhere to nationally-mandated social distancing measures and apply a secure, transparent, non-hierarchical and human-centric approach to the provision of government services.
- The pandemic has brought about profound structural and societal change. It has reaffirmed the importance of activating a positive feedback cycle to build social trust in the information society of tomorrow through sharing of digital know-how and advancement of expertise in the digital domain.
- The increased demand for digital solutions across all sectors widened existing digital gaps between individuals, households, and businesses presenting differences in their ICTs accessibility and usability potential. To ensure no one is left behind, governments were called upon to enhance investments aimed at strengthening connectivity and fostering

infrastructural development to provide universal and citizen-centric access to e-government solutions and online government services.

### 3) Key achievements, announcements, launches, agreements, and commitments

- **ITU, the government of Estonia, the German organization GIZ, and the Digital Impact Alliance (DIAL)**, with the support of the **European Commission**, have worked in close collaboration since 2020 to foster the goal of accelerating national digital transformation and the digitalization of government services for the achievement of the Sustainable Development Goals (SDGs) through ICTs by 2030. This joint coordination led to the launch of the [GovStack initiative](#), an expert community-driven and multi-stakeholder effort aimed at deriving common technical practice and understanding on fundamental reusable and interoperable digital components within a common cross-government agency architectural view, called “**Building Blocks**”. The initiative’s central objective is to foster the creation of open-source domain-driven micro services to build more **human-centered digital solutions**. Low-income countries and low-experienced people can easily access these services. The project can change the way the public interacts with the government and is aimed at building a more human-centered digital world.
- **The GovStack initiative** is an extension of an earlier effort established by DIAL and ITU aimed at developing an actionable and innovative framework called the [SDG Digital Investment Framework](#). The framework is an empirical abstraction showcasing the common approach adopted by countries which are recognized as leading examples in transforming government services through digitalization by considering **the core, shared, and reusable elements within a platform-based architecture**. Some of these leading country-based examples include India ([IndiaStack](#)), Estonia ([e-Estonia](#)), Singapore ([Singapore Government Tech Stack or SGTS](#)) and Australia ([Digital Services Platform](#)).
- GovStack allows users to overcome multiple barriers concerning availability of government services by establishing **a unified government platform** fostering **affordability, accessibility, scalability** as well as integrating the work of multiple ministries into a **single interoperable domain**. Through this approach, services are delivered faster, at lower costs, in citizen-centric and accessible formats.
- Countries seeking to achieve the SDGs in the next ten years are focusing on national digital strategies and agendas to transform the way they do business and improve the lives of their citizens. The adoption of a “**whole-of-government**” approach for digital investments will foster low- and middle-income countries’ implementation of digital solutions, overcoming the limit of project- and sector-specific interventions and successfully providing digital government services that are responsive to the needs of citizens and businesses. As many countries do not have the resources to “reinvent the wheel” or have fragmented and duplicative investments that are difficult to sustain and scale, adopting **multi-purpose and**

**cross-sector digital solutions** in line with **the GovStack concept - therefore solutions that are easier to design, implement, and scale** – constitutes a key priority to foster achievement of the SDGs through ICTs by 2030.

- Building a digital society means fostering a **culture of change and innovation** to increasingly integrate digital components into public sector practices, initiatives and services. The degree of complexity of organizations can be measured by the complexity of tools and resources they rely on to design and implement their initiatives and projects. GovStack successfully promotes an **organizational culture aimed at aligning governments’ and citizens’ incentives** to foster cooperation, pool resources and achieve remarkable results in the delivery of e-government services and the implementation of public sector initiatives. **GovStack’s building blocks** can be **maintained, combined, re-used** and **adjusted** to a country’s local context in terms of public sector cultural and strategic priorities, language change, and citizens’ needs.
- Germany is among the countries who are adopting a **“whole-of-government” approach** to investing in strengthened digital infrastructure. As a result, Germany was able to achieve economies of scale and build shared infrastructure available to the whole of government without duplication of investments. This approach allowed Germany to provide innovative government services targeted to citizens, businesses and the public sector. **Learning by example** would allow other countries to make similar progress, fostering understanding that investing in and adopting such an approach will support their governments in the delivery of digital services at scale with a greater return on investment, as well as sustained citizen engagement. In fact, evidence from other countries confirms that a whole-of-government approach to investing in shared digital infrastructure, supported by the building block approach, can lead to more rapid **scale-up of digital services**. These e-government strategies will also enhance the protection of citizens’ rights, avoid unnecessary duplication of systems, increase security and traceability of public investments and enhance civic engagement and accountability.
- [\*\*SMART Africa\*\*](#) is an innovative commitment from African Heads of State and Government to accelerate sustainable socioeconomic development on the continent, transforming Africa into a knowledge economy through affordable access to broadband infrastructure and enhanced usage of ICTs. As the continent mostly relies on natural resources, a comprehensive view of the **cross-sectoral potential of digital solutions** has not yet been fully internalized by governments. To do so, a **structural transformation combined with a change of mindset** is required. National governments in Africa, regulatory agencies, and the private sector need to identify and implement **substantive structural reforms** to foster digital transformation and adopt digital solutions not in silos, rather as **transversal and multi-purpose devices**. Enhancing **digital skills development** among government officials and bureaucrats will also allow governments to be able to access and effectively use digital tools and platforms. In Africa, GovStack is addressing the fragmentation of roles and responsibilities in the public sector by **harmonizing bureaucratic procedures** through the implementation of a **unified system** across government departments.

#### 4) Main outcomes highlighting the following:

##### I. Debated Issues

- *Please capture highlights of the main issues discussed and interactions with audience*
  - The GovStack initiative aims to build a common understanding and technical practice on fundamental reusable and interoperable digital components, called “Building Blocks”.
  - Through the digital “Building Blocks” approach, governments can easily create or modify their digital platforms, services, and applications by reducing costs, time, and resource requirements and responding to citizens’ needs in accessible and human-centered ways.
  - Governments that are taking a “whole-of-government” approach to investing in digital infrastructure are best able to achieve economies of scale and avoid duplication of investments. This helps them focus on providing innovative services and solutions to citizens, businesses and the public sector.
  - Investing in and adopting such an approach also puts governments in a better position to deliver digital services at scale with a greater return on investment, as well as sustained citizen engagement.
  - Developing digital public goods in a public environment, as is advocated by the GovStack initiative, can enable these solutions to become more widely adopted.
  - Demand for national digital transformation has increased significantly, though there are few supply-side solutions that are capable of assisting governments in implementing a “whole-of-government” approach to national digital transformation.
  
- *Please highlight key achievements and challenges shared by the audience and/or panelists*
  - In low-resource settings, governments struggle to keep pace with existing public services digitalization trends. Systematically, they face the following challenges:
    - **Coordination:** Problems in coordination commonly occur in aligning ICT ministry work with that of other agencies.
    - **Silos:** Siloed investments and duplicative efforts by development partners promote fragmented digital governance and silos in partner countries.

- **Funding:** Challenges in procuring and implementing affordable IT solutions persist, as do challenges in creating the necessary capital to invest in ICT infrastructure projects.
- **Scaling:** Huge challenges exist in adapting and investing in projects at scale, particularly around the rollout of physical ICT infrastructure and the deployment and use of common data platforms. The COVID-19 pandemic has demonstrated that governments struggle to meet the demand for digital government services and that improving such services should be an urgent priority for the international community.
- Through the use of “Building Blocks” to provide e-government services, GovStack reduces unnecessary duplication of systems, combats fraud and corruption by increasing the security and traceability of transactions and improves civic engagement and accountability. Additionally, the initiative provides digital services through a seamless service delivery experience which is able to augment the user experience as well as the agency of users.

## II. Quotes

- *Please provide two important quotes from the session and the names & organization of the person you are quoting*
  - *“Adopting a “whole of government approach” means fostering collaboration between diverse government ministries to implement cross-sectoral digital policies and enhance infrastructural development in cost effective and citizen-centric ways. It means gathering a wide range of stakeholders to share their expertise and ICT-based tools to strengthen the information society.”*  
-**Mr. Stephen Breaux**, Deputy to the Director of BDT, International Telecommunication Union (ITU).
  - *“Building a digital society, especially in the public sector has got very little to do with technology and everything to do with building a mindset and culture to be ready to adapt to new things. [...] the mindset is the protagonist of the story. [...] If you take the word “digital” transformation from “digital transformation” out, it is actually about organizational culture as well.”* -**Mr. Marten Kaevats**, National Digital Advisor, Government Office of Estonia.

## III. Overall outcomes of the session highlighting

- *Please provide the main conclusions reached during the discussion*

- Digital government services are vital for developing a digital economy that benefits all citizens by expanding access to critical services such as health, education and social protection.
  - E-government services constitute a meaningful ICT-based response to the need of integrating digital transformation advancements in the work of public administration, enhancing social inclusion through the digital substitution of paper-based solutions.
  - Current challenges to digital government include lack of coordination, working in siloes, funding constraints, and the absence of scalable solutions, all posing significant risks to comprehensive digital transformation within government. In addition, governments have the tendency to decrease public expenditure in the national digital innovation ecosystem and to make fragmented investments which lead to increase the costs of governmental services, while reducing overall efficiency gains.
  - A “whole-of-government” approach together with the reuse and customization of building blocks is at the heart of the success of digital government services projects such as GovStack. Govstack is a solution built from modular and reusable components, leveraging a secure and standards-based approach, and ensuring safe and practical citizens’ access to e-government services.
- *The vision for implementation of WSIS Action lines beyond 2015*
    - ITU will continue its cooperative work with the government of Estonia, GIZ, DIAL and the European Commission to empower governments to take ownership of their digital futures by building more effective and cost-efficient digital government services within the next five years.

**5) Main linkages with the Sustainable Development Goals (please specify the SDGs)**

**SDG 9** (“industry, innovation and infrastructure”), **SDG 16** (“peace, justice and strong institutions”), **SDG 17** (“partnerships for the goals”).

**6) Emerging Trends related to WSIS Action Lines identified during the meeting**

As highlighted over the course of the high-level dialogue, to increase the provision of citizen-centric, accessible and affordable e-government services, the following **WSIS Action Lines** should be prioritized:

- **WSIS Action Line C1:** governments and multiple stakeholders play a key role in promoting ICTs for development, and cross-sectoral cooperation should be enhanced to deliver e-government solutions.
- **WSIS Action Line C7:** e-government strategies should be implemented focusing on applications aimed at innovating and fostering transparency in public administrations and democratic processes, improving efficiency, strengthening relations with citizens, and achieving a more efficient allocation of resources and public goods.
- **WSIS Action Line C11:** Supporting international and regional cooperation initiatives in the field of e-government, in order to enhance transparency, accountability and efficiency at all levels of government, constitutes a key priority.

#### **7) Suggestions for Thematic Aspects that might be included in the WSIS Forum 2022**

- There is a need for further discussion of the benefits and challenges of adopting a whole-of-government approach to providing digital government services. In particular, the WSIS Forum 2022 should address how governments can measure the return on investment from a whole-of-government approach to e-government.
- The WSIS Forum 2022 could also constitute an enabling framework for the official release of a progress report assessing the status of cross-country implementation and further developments of the GovStack initiative by the year 2022.

## High-Level Policy Sessions

The High-Level Policy Sessions (HLPS) were organised from 22-26 March 2021. Full agenda is available at: <https://www.itu.int/net4/wsis/forum/2021/Agenda/Track/4#agenda>

The HLPS were moderated by 11 High-Level Track Facilitators who nominated by the organisations representing different stakeholder types.

The *Outcomes of the High-level Policy Sessions and Conclusion of High-Level Track by Chairman* session was organised during the final week of the WSIS Forum 2021 on 20 May 2021.



# Country Workshops

## ICT activities for Bhutan

**Workshop Name:** ICT activities for Bhutan

**Workshop Link:** <https://www.itu.int/net4/wsis/forum/2021/Agenda/Session/287>

**Organization/Country:** Bhutan

**Date:** Thursday, 1 April 2021

**1) Relevance with the WSIS Action Lines – please specify the Action Lines C1 to C11**

C1 and C2

**2) Did your workshop highlight any issues related to COVID-19? If yes, please explain.**

As the particular workshop was focused on ICT activities in the country, this workshop did not focus on Covid-19. However, Bhutan did share our Covid-19 experience during the Facebook live interview for Bhutan and a panel discussion with ITU on Covid related systems for Bhutan.

During the earlier workshops, Bhutan highlighted that we have developed 10 Systems as part of our response to the Covid-19 pandemics. The ICTs apps and systems developed were the development of Druk Trace App, Entry Exit System, Check Post Management System, Health Facility System, Quarantine Management System, Control and Monitoring System, Essential Goods stockpiling system, Vegetable Market Information System, Covid-19 middleware, and Essential Commodity Ordering System.

**3) Key achievements, announcements, launches, agreements, and commitments**

The workshop was focused on the activities carried out by Bhutan only. During the workshop, the panelist highlighted on the implementation of Broadband Master Plan in the country including laying down of fiber optic cable in all the Districts and Development blocks in the country. The Panelist also highlighted on the implementation of a Digital Flagship program in the country. Through the Digital Flagship Program, the country intends to develop a National Digital Identity for all, initiate digitization of school through the Digital School component in the program, an electronic Patient Information System would also be developed, there will be a Government Initiated Network whereby the government would connect all the colleges, schools, hospitals and government Offices. Further through the Digital Flagship Program, an Integrated Citizen Service system would be developed, an Electronic Business licensing system would be developed, an integrated Tax system would be developed and lastly non-ICT professionals would be trained to use ICT systems.

#### **4) Main outcomes highlighting the following:**

##### **I. Debated Issues**

- Please capture highlights of the main issues discussed and interactions with audience  
ICT Journey in the Country since the introduction of ICT and internet in the country in 1999.
- Please highlight key achievements and challenges shared by the audience and/or panellists
  - Rapid ICTization in the country
  - Implementation of the Universal Connectivity program through the Universal Service fund
  - Rapid rise in the eGovernance rating for Bhutan
  - Implementation of the Broadband Master Plan

##### **II. Quotes**

- Please provide two important quotes from the session and the names & organisation of the person you are quoting
  - Implementation of the Digital Flagship Programme (Department of Information Technology and Telecom, Ministry of Information and Communications]to transform the country towards a more knowledge based society.
  - Implementation of National Broadband Policy [ Department of Information Technology and Telecom, Ministry of Information and Communications]

##### **III. Overall outcomes of the session highlighting**

- main conclusions reached during the discussion
  - The country would continue bringing all the government related services to the people's doorstep and works towards enabling ICT for development.
- the vision for implementation of WSIS Action lines beyond 2015
  - The Ministry will thrive to achieve the WSIS Action lines laid down by the ITU.

#### **5) Main linkages with the Sustainable Development Goals (please specify the SDGs)**

- **SDG 9 on Infrastructure**

#### **6) Emerging Trends related to WSIS Action Lines identified during the meeting**

#### **7) Suggestions for Thematic Aspects that might be included in the WSIS Forum 2022**

## Disinfodemics During Covid-19 Era: Digital Literacy Movement as a Tool in Tackling Hoax Related to Covid-19 for Shaping a Resilient Society

**Workshop Name:** Disinfodemics During Covid-19 Era: Digital Literacy Movement as a Tool in Tackling Hoax Related to Covid-19 for Shaping a Resilient Society

**Workshop Link:** <https://www.itu.int/net4/wsis/forum/2021/Agenda/Session/310>

**Organization/Country:** Indonesian Ministry of Communication and Information Technology

**Date:** Thursday, 8 April 2021

### 1) Relevance with the WSIS Action Lines – please specify the Action Lines C1 to C11

Our thematic workshop “*Disinfodemic During Covid-19 Era: Digital Literacy Movement as a Tool in Tackling Hoax Related to Covid-19 for Shaping a Resilient Society*” will focus on digital literacy as an attempt to overcome the spreading of Covid-19 infodemic in Indonesia. The massive digital literacy movement we do is hoped to build and enhance Indonesian people’s critical thinking capacity, so they could differentiate and identify hoaxes related to Covid-19 in specific, and think critically about any information they encounter online in general (Action Lines C4, Capacity Building). Furthermore, this thematic workshop highlights the importance of digital ethics in combating hoax on social media platforms. Therefore, our thematic workshop is perfectly in line with WSIS Action lines on C4 (Capacity Building) , C9 (Media), and C10 (Ethics).

### 2) Did your workshop highlight any issues related to COVID-19? If yes, please explain.

Yes. Our workshop highlights the existence and the spread of Covid-19 infodemic, in the form of hoax or inaccurate information about Covid-19. This infodemic spreads through mouth to mouth and massively spread in social media, causing society’s lack of trust to government and health agencies and society’s erroneous health response related to Covid-19, which as the result, hampers Indonesia’s government effort in handling and finding solutions for this pandemic.

### 3) Key achievements, announcements, launches, agreements, and commitments

We have two key achievements. First, more than 30 people (local and international participants) attended this webinar, so they could have a good understanding about the infodemic and Indonesian government effort in overcoming this issue. Also, they know practical tips to be critical in identifying hoaxes. Second, more programs and collaborations with some Indonesian stakeholders will be made regarding this issue (digital literacy).

Furthermore, as our commitment to digital transformation initiated by President Joko Widodo, the Ministry of Communication and Information Technology will launch and announce the National Digital Literacy Movement in May 2021, which will be implemented in 514 districts/cities all over Indonesia. This national movement includes digital literacy programs for people with disabilities, SMSE, and frontier, outermost, and least developed regions, or often referred to as 3T regions. Many collaborations also will be made for the upcoming programs.

#### 4) Main outcomes highlighting the following:

##### I. Debated Issues

- Please capture highlights of the main issues discussed and interactions with audience
- There has been a rise in hoaxes about health, especially regarding Covid-19 since this case was first announced internationally and nationally. In Indonesia, there have been two big jumps in the Covid-19 infodemic cases. First is when this case first appeared and second is when the Indonesian government announced vaccination for the public.
- There are three types of infodemic:
  1. Misinformation  
News that spreads without intentions because someone just wants to spread the news they get, but they are not eager to know the validity of those information. This misinformation may be caused by the mistake of photo, date, statistical data information, or textual languages.
  2. Disinformation  
Contents that are made in a manipulative way. That is why conspirations arise, so that people can control or change the perspective of others.
  3. Misinformation  
This is the most difficult type of infodemic, because people intentionally change and spread the actual information which is against the law.
- 3 roots of infodemic are:
  1. Mass anxiety
  2. Distrust between people and authorities.

This may be caused by some bad public communications and political polarization which still last from the last presidential election.

### 3. Distrust between people and mainstream media.

- Infodemic is also about society's trust issue. So apart from doing digital literacy as a tool in overcoming infodemic, we also have to do something regarding this trust issue.
  - Practical tips in identifying hoaxes.
  - There are some efforts that have been done and is ongoing to overcome the Covid-19 infodemic, that has been done by the Indonesian Ministry of Communication and Information Technology, World Health Organization, Mafindo, and UNICEF.
- Please highlight key achievements and challenges shared by the audience and/or panellists
    - The **true challenge** in overcoming Covid-19 infodemic is society's trust issue to the government or authorities and how we can build society's trust again.
    - **Key achievement:**
      1. Indonesian government initiatives to overcome the spread of infodemics are doing the up-stream effort (digital literacy movement), middle stream effort (clarification and taking down hoaxes), and down-stream effort (collaboration with law enforcement authorities). There are also comprehensive platforms for searching information and clarification about hoaxes, which includes website Trustpositif.com and whatsapp chatbot.
      2. The establishment of a national website for Covid-19 Response and Economy Recovery, where we can input keywords and get the information we need.
      3. UNICEF Indonesia's Strategy:
        - RCCE, which include national support and coordination, public awareness, advocacy, community engagement, and documentation.
        - Provide technical support for Indonesia government (media training and spoke person coaching, so they could communicate effectively to the public when addressing disinformation).
        - Inoculative communication as a pre-emptive/pre-exposure effort to provide foundation for the public by letting them know earlier that, there will be a lot of hoaxes circulating, which comes from people who don't want to go out from this crisis. So, when people

- *“Why can digital literacy be an effective tool? Because its purpose is to build and improve society’s cognitive capacity and to equip people with necessary knowledge and skills to identify, differentiate, and take appropriate action on hoaxes.”*

- Bonifasius Pudjianto (Indonesian CIT Ministry)

- *“Rumors thrive in uncertainty and that’s Covid-19 Pandemic is all about.*

*Because it is a new virus, we didn’t know how it is transmitted, we didn’t know how we would act, and even now we’re still learning about it. In that situation people are scared and people don’t understand, so they believe anything, and therefore communicating uncertainty is important. We have to tell people that there are things that we don’t know and there are things that we know. And just because you hear something, doesn’t mean it is the truth.”*

- Dr. Supriya Bezbaruah (World Health Organization)

- *“My final message is, at the end of the day, infodemic management is about people, so trust is the key. We can only succeed if people trust us. So, that is finally what we need to work.”*

- Dr. Supriya Bezbaruah (World Health Organization)

### **III. Overall outcomes of the session highlighting**

- main conclusions reached during the discussion

To sum up, Disinfodemic can only be tackled by a collaborative work between Government and stakeholders which is begun by sharpening citizens’ digital literacy skills as a preliminary way to differentiate the real and fake news on digital platforms. The second way is strengthening the law enactment for the hoax spreader.

- The vision for implementation of WSIS Action lines beyond 2015

The Ministry of Communication and Informatics has created a Digital Literacy Movement Roadmap 2021-2024 which is targeting 50 million of Indonesian citizens. The digital literacy movement will begin in the middle of May, 2021. Furthermore, the movement consists of digital

literacy classes for inclusive, elderly and citizens in general. Besides, it is expected to be a great milestone in realizing the implementation of WSIS Action lines on C4 (Capacity building).

**5) Main linkages with the Sustainable Development Goals (please specify the SDGs)** According to SDGs Goal No. 16, ICT plays a very critical role in disseminating accurate information to determine the response of authority. Hence, in order to putting back the role of ICTs in the era of pandemic, Indonesian government take immediate action through the presence of our Thematic Workshop *"Disinfodemic During Covid-19 Era: Digital Literacy Movement as a Tool in Tackling Hoax Related to Covid-19 for Shaping a Resilient Society"* which highlighted how digital literacy as an effective tool to equip people with the right ICT knowledge and skills, in order to reach the goal of ICT on SDGs No. 16 (disseminating accurate information to determine the response of authority during the emergency situation).

**6) Emerging Trends related to WSIS Action Lines identified during the meeting**

Since our thematic workshop was focused on digital literacy movement, the WSIS action lines that frequently emerged during the meeting is the Action Lines C4 (Capacity Building). To be specific, the most highlighted points were about the action taken by Indonesian Government to spread digital literacy movement and measures taken in order to diminish the spread of disinfodemics.

**7) Suggestions for Thematic Aspects that might be included in the WSIS Forum 2022**

Inclusive digital world and digital literacy.



## Digital Literacy for Disabilities: Empowering Uniqueness into Strength

**Workshop Name:** Digital Literacy for Disabilities: Empowering Uniqueness into Strength

**Workshop Link:** <https://www.itu.int/net4/wsis/forum/2021/Agenda/Session/312>

**Organization/Country:** Indonesia

**Date:** Friday, 9 April 2021

## Digital innovations as drivers of recovery for the post-COVID-19 era

**Workshop Name:** Digital innovations as drivers of recovery for the post-COVID-19 era

**Workshop Link:** <https://www.itu.int/net4/wsis/forum/2021/Agenda/Session/380>

**Organization/Country:** Office of Electronic Communications (UKE), Poland

**Date:** Wednesday, 28 April 2021

### 1) Relevance with the WSIS Action Lines – please specify the Action Lines C1 to C11

C1: The role of governments and all stakeholders in the promotion of ICTs for development;

C3: Access to information and knowledge;

C4: Capacity building;

C5: Building confidence and security in use of ICTs.

### 2) Did your workshop highlight any issues related to COVID-19? If yes, please explain.

The workshop highlighted digital innovations as important drivers of recovery for the post-COVID-19 era. In the wake of the coronavirus crisis, digital innovations play a critical role in reducing a negative impact of the pandemic, both now and in a long-term perspective.

### 3) Key achievements, announcements, launches, agreements, and commitments

The workshop brought together people from both, the public and private sectors with a wide range of knowledge. The session allowed for the exchange of views in the field of ICT and the sharing of good practices. The panelists recognized the key role of ICT in emerging from the pandemic and rebuilding the world after the crisis caused by COVID-19.

### 4) Main outcomes highlighting the following:

#### I. Debated Issues

The presented project and whole discussion touched upon issues of the role of digital innovations as drivers of recovery for the post-COVID-19 era.

#### II. Quotes

- *Coronavirus has had an unprecedented impact on businesses, society and economy. It is very likely that it will significantly accelerate the shift to digital and the pace of the 'Fourth Industrial Revolution'. From online orders to drone delivery, virtual meetings to automated factories, digital services are growing in importance across a constantly increasing number of sectors and activities.* - Mr. Karol Krzywicki Deputy President Office of Electronic Communications (UKE), Poland
- *Although COVID-19 has impacted some of mobile's key connectivity issues, the pandemic has not necessarily created a new set of high-level issues for the sector. Rather, the COVID-19 crisis has put the spotlight on digital connectivity as an absolute necessity of modern life, and a tool that can be depended upon as governments work to protect citizens and save lives.* - Ms. Alix Jagueneau Head of External Affairs GSMA
- *This year has been challenging for all, the COVID-19 pandemic is a global crisis that continues to unfold and create havoc on so many different perspectives from health to economy, humanitarian issues. The virus continues to take a tragic toll on people's lives as well. In the same time crisis is also acting as a catalyst for change.* - Ms. Timea Suto Knowledge Manager International Chamber of Commerce (ICC)

### **III. Overall outcomes of the session highlighting**

Digital innovations as drivers of recovery for the post-COVID-19 era. In the wake of the coronavirus crisis, digital innovations play a critical role in reducing a negative impact of the pandemic, both now and in a long-term perspective. In the post-COVID-19 era we may expect not only emerging technologies, but also profound changes in societies and economies. Under a new normality, both big tech companies, SMEs and startups in ICT have to be equipped with agile business models and innovative solutions. Undoubtedly, there will be a need to reset the policy frameworks to support governments and regulators with tools and capabilities to direct innovation efforts towards the goals of recovery and resiliency.

#### **5) Main linkages with the Sustainable Development Goals (please specify the SDGs)**

Goal 8: Promote inclusive and sustainable economic growth, employment and decent work for all;

Goal 9: Build resilient infrastructure, promote sustainable industrialization and foster innovation;

Goal 10: Reduce inequality within and among countries;

Goal 16: promote just, peaceful and inclusive societies.

#### **6) Emerging Trends related to WSIS Action Lines identified during the meeting**

- The growing role of digital innovations and investment in innovation;

- The impact of policy-making on boosting the innovative solutions;

- Major impact of the pandemic on changes and trends in consumer and technological approaches;

- Noticeable increase of SMEs and startups in ICT sector;

- The important role of regulatory environment, that supports innovations keeping end-users active and safe in the ICT ecosystem.

**7) Suggestions for Thematic Aspects that might be included in the WSIS Forum 2022**

- The role of ICT in recovery after COVID-19;
- Identifying problems caused by COVID-19 and solving them with the help of ICTs;
- Lessons from COVID-19 for the development of information society.

## Digital transformation in a post-Covid era

**Workshop Name:** Digital transformation in a post-Covid era

**Workshop Link:** <https://www.itu.int/net4/wsis/forum/2021/Agenda/Session/430>

**Organization/Country:** Saudi Arabia

**Date:** Monday, 3 May 2021

## Enabling ICTs to help outreach with regards to COVID – accessibility

**Workshop Name:** Enabling ICTs to help outreach with regards to COVID – accessibility

**Workshop Link:** <https://www.itu.int/net4/wsis/forum/2021/Agenda/Session/289>

**Organization/Country:** Qatar

**Date:** Monday, 3 May 2021

**1) Relevance with the WSIS Action Lines – please specify the Action Lines C1 to C11**

AL – 1: Promotion of ICTS for Development

AL – 3: Access to information and knowledge

AL – 6: Enabling Environment

AL – 7: E-Health

**2) Did your workshop highlight any issues related to COVID-19? If yes, please explain.**

Yes.

Qatar's MOPH, PHCC, HMC and MOI joined on the global WSIS platform to provide a workshop on how technology enabled outreach, accessibility and solutions during the COVID-19 outbreak.

Success stories and examples of Qatar's applications and programs were shared during the interactive workshop, as well as shedding light on the challenges faced during the pandemic.

**3) Key achievements, announcements, launches, agreements, and commitments**

Information Sharing and knowledge transfer with regards to COVID were done during the session. Qatar's achievements in combatting the pandemic were highlighted.

**4) Main outcomes highlighting the following:**

**I. Debated Issues**

- Please capture highlights of the main issues discussed and interactions with audience
  - How ICTs can enable healthcare particularly during the COVID pandemic
  - How technology can play an important role in the ecosystem as an enabler to help combat COVID
  - How COVID has forced us to up our game collectively when it comes to ICT capabilities, infrastructure, use cases and skills.
- Please highlight key achievements and challenges shared by the audience and/or panellists
  - Qatar's relative success in combatting the pandemic was highlighted

- How a qualitative shift was achieved technologically in relatively such a small amount of time within Qatar's healthcare corporations and ministries
- The different phases that the world in general has faced over the last period (COVID initial response, tracking, isolating, vaccinating...etc) and how Qatar has dealt with it.

## II. Quotes

- Please provide two important quotes from the session and the names & organisation of the person you are quoting
  - Quote 1: (on the upcoming COVID strains) we trust our scientists, researchers, and doctors at the forefront. They are the experts and have our full trust to guide us to safety. – Richard Storey
  - Quote 2:

## III. Overall outcomes of the session highlighting

- main conclusions reached during the discussion
  - i. ICT has always been a massive enabler within the healthcare sector
  - ii. COVID-19 accelerate that, and highlighted the need for increased enablement
  - iii. The sudden increased rate in ICT adoption within the healthcare sector is not temporary, but will continue to be part of our future and we need to plan accordingly.
- the vision for implementation of WSIS Action lines beyond 2015
  - Already done; the action lines mentioned were re-enforced between 2019 and 2021, and will continue to be so.

## 5) Main linkages with the Sustainable Development Goals (please specify the SDGs)

- SDG 3: Good health and well being

## 6) Emerging Trends related to WSIS Action Lines identified during the meeting

- a. AL – 1: Promotion of ICTS for Development
- b. AL – 3: Access to information and knowledge
- c. AL – 6: Enabling Environment
- d. AL – 7: E-Health

For all the above, robotics, artificial intelligence, advanced data warehousing, mining and centralization were all trends that were utilized, and will continue to be utilized at a bigger scale in the future.

## 7) Suggestions for Thematic Aspects that might be included in the WSIS Forum 2022

To continue monitoring COVID19, see how it develops until 2022 – COVID19 might be an example, but we have to continue strengthening the ICT-Health coordination, reactively to COVID19, and proactively for other issues that might come.

## Cybersecurity drills and training of the human aspect

**Workshop Name:** Cybersecurity drills and training of the human aspect

**Workshop Link:** <https://www.itu.int/net4/wsis/forum/2021/Agenda/Session/290>

**Organization/Country:** Qatar

**Date:** Wednesday, 5 May 2021

**1) Relevance with the WSIS Action Lines – please specify the Action Lines C1 to C11**

AL – 4: Capacity Building

AL – 5: Building Confidence and security in the use of ICTs

AL – 10: Ethical Dimensions of the Information Society

AL – 11: International and Regional Cooperation

**2) Did your workshop highlight any issues related to COVID-19? If yes, please explain.**

Yes, how strong Business Continuity and Disaster Recovery planning has enabled the team, and can enable teams, of carrying on with business with the least possible interruption. In addition, how cyber drills, such as the STAR-X Series, can elevate the level of readiness of organizations to face similar situations and other disasters

**3) Key achievements, announcements, launches, agreements, and commitments**

Qatar's success stories and experiences in the cybersecurity domain with a focus on National Cyber Drills (The STAR-X Series), and training the human aspect was shared with all participants. Qatar also looks forward for continued international coordination with global organizations.

**4) Main outcomes highlighting the following:**

**I. Debated Issues**

- Please capture highlights of the main issues discussed and interactions with audience
  - The human aspect is sometimes overlooked/not attended to fully when it comes to cybersecurity
  - What the components are in a healthy national cybersecurity defense ecosystem
  - What is a proven approach to architect a national cyber drill program
  - Training the human aspect to become skilled, helps in being preventive/proactive in combating cyber threats rather than reactive
  - Cybersecurity is an ever growing trend that will not halt soon, as such, Qatar plans to keep on this program for years to come
- Please highlight key achievements and challenges shared by the audience and/or panelists



- Having a proper architecture in which incidents gets classified, analyzed, and reported properly is key for a healthy defense system
- ICT and Cybersecurity skills are continuously taught and revamped in Qatar on a yearly basis to keep up to standard
- Sectorial coverage was increasing over the years, until it now covers most of the government sectors and the private sector resembled in ICT service providers
- The pillars of building a sound cybersecurity strategy (human aspect) for the years to come were discussed and shared
- A methodology to conducting national cyber drills highlighted by the Drill Development Lifecycle and the continuous improvement.
- How a training program is built/layered for maximum spread of knowledge and effectiveness

## II. Quotes

- Please provide two important quotes from the session and the names & organisation of the person you are quoting

- Quote 1:

" Cybersecurity Skills deficit has been identified as a major risk across many reports globally, Qatar is no different, Through STAR-X exercises, we endeavour to upskill our stakeholders and ensure that they maintain their cutting edge in cyber security skills." Samir Pawskar, MoTC

- Quote 2:

"The national cyber drill was not just an exercise that the cyber security sector conducts every year but was a method to improve participants' information security knowledge and address the latest cyber threats and the optimal method to deal with the emerging threats." Monir Kamal, MoTC

## III. Overall outcomes of the session highlighting

- main conclusions reached during the discussion
  - The human aspect is a main factor in a national cybersecurity defense ecosystem
  - Star-X is a well proven national cybersecurity program, the approach and methodology are proven and keep evolving annually
- the vision for implementation of WSIS Action lines beyond 2015
  - i. AL – 4: Capacity Building
  - ii. AL – 5: Building Confidence and security in the use of ICTs
  - iii. AL – 10: Ethical Dimensions of the Information Society
  - iv. AL – 11: International and Regional Cooperation

All the mentioned action lines are tackled by Star-X.  
Star-X has been done since after 2015, and continues to be held annually, as such supporting the same action lines continuously.

## 5) Main linkages with the Sustainable Development Goals (please specify the SDGs)

SDG 5: Gender Equality

SDG 9: Industry, innovation and infrastructure

SDG 11: sustainable cities and communities

SDG 16: Peace, justice and strong institutions

**6) Emerging Trends related to WSIS Action Lines identified during the meeting**

- Cybersecurity
- Capacity Building
- Empowering Women in ICTs

**7) Suggestions for Thematic Aspects that might be included in the WSIS Forum 2022**

Fortifying Cyber Security Defense through Readiness Exercises

## Building Resilient Digital Infrastructure

**Workshop Name:** Building Resilient Digital Infrastructure

**Workshop Link:** <https://www.itu.int/net4/wsis/forum/2021/Agenda/Session/447>

**Organization/Country:** Rwanda

**Date:** Friday, 7 May 2021

## Towards a Digital Government

**Workshop Name:** Towards a Digital Government

**Workshop Link:** <https://www.itu.int/net4/wsis/forum/2021/Agenda/Session/448>

**Organization/Country:** Telecommunication and Digital Government Regulatory Authority - UAE

**Date:** Thursday, 20 May 2021

# Action Line Facilitators Meeting

ALFM Action Line C7: E-Health: Digital Health and COVID-19: Challenges, Trends, and New Opportunities

**Workshop Name:** ALFM Action Line C7: E-Health: Digital Health and COVID-19: Challenges, Trends, and New Opportunities

**Workshop Link:** <https://www.itu.int/net4/wsis/forum/2021/Agenda/Session/335>

**Organization:** ITU/WHO

**Date:** Wednesday, 7 April 2021

ALFM Action Line C5: Cybersecurity: Multidimensional cybersecurity measures-  
Current opportunities and challenges in using indices to understand  
cybersecurity

**Workshop Name:** ALFM Action Line C5: Cybersecurity: Multidimensional cybersecurity measures-  
Current opportunities and challenges in using indices to understand cybersecurity

**Workshop Link:** <https://www.itu.int/net4/wsis/forum/2021/Agenda/Session/330>

**Organization:** ITU

**Date:** Tuesday, 20 April 2021

## WSIS AL C4: Capacity Building

**Workshop Name:** WSIS AL C4: Capacity Building

**Workshop Link:** <https://www.itu.int/net4/wsis/forum/2021/Agenda/Session/258>

**Organization:** ITU/WHO

**Date:** Wednesday, 21 April 2021

## WSIS AL C7: Digital jobs in the future of work

**Workshop Name:** WSIS AL C7: Digital jobs in the future of work

**Workshop Link:** <https://www.itu.int/net4/wsis/forum/2021/Agenda/Session/326>

**Organization:** ILO

**Date:** Thursday, 22 April 2021

**1) Relevance with the WSIS Action Lines – please specify the Action Lines C1 to C11**

Action Line Facilitation Meeting C7:E-employment.

**2) Did your workshop highlight any issues related to COVID-19? If yes, please explain.**

This session discussed opportunities and challenges of a growing digital economy and increasing digitalization during the COVID pandemic and its implications on the world of work. It addressed the trade-offs and difficult policy choices arising from a digital transformation of employment that have been accelerated in the past year.

**3) Key achievements, announcements, launches, agreements, and commitments**

Explained the ongoing work of the three organizations (ILO, the OECD and the IMF) on addressing the digital disruption of jobs, including addressing statistics gaps and design of policy responses in line with new challenges.

**4) Main outcomes highlighting the following:**

**I. Debated Issues**

The first debate issue included the fact that COVID19 has accelerated the transformation of the labour markets into digitalized or tech-based ways of work. The IMF highlighted the magnitude and scope of the disruption, as well as some of the emerging structural changes.

The second debate issue was that new types of employment are emerging through telework (including Platform work). The OECD highlighted the important implications for informal workers, women and young workers in Latin American countries, and the fact that policy responses need to address the (increasingly) changing way we work.

The third debate issue addressed the emerging inequalities in the labour market as a result of the Pandemic. There is a clear increase in inequality within and between countries, the inequalities are not new. Women have carried a lot of the burden as they take on additional care work. In addition, young people and those seeking to enter the labour market, are faced with multiple shocks, notably on their education, training and employment.

**II.Quotes**

- COVID19 has accelerated the transformation of the labour markets into digitalized or tech-based ways of work. Jim Tebrake Division Chief and Assistant Director IMF/STAIMF



- The COVID 19 Pandemic has exacerbated inequalities inherited from previous crisis. Sukti Dasgupta Chief Employment, Labour Market and Youth Branch, ILO
- We need appropriate employment policy responses that addresses the challenges of the COVID 19 Pandemic. Sebastian Nieto, Head of Latin America and the Caribbean Unit, OECD Development Centre.

### **III. Overall outcomes of the session highlighting**

The key challenge is to develop clear information of the situation in the labour market in order to develop and implement fit for purpose policy responses to address inequalities, particularly for the most vulnerable and those in the hardest hit sectors.

- 5) **Main linkages with the Sustainable Development Goals (please specify the SDGs)**  
SDG 8
- 6) **Emerging Trends related to WSIS Action Lines identified during the meeting**  
The digital transformation of the labour market.
- 7) **Suggestions for Thematic Aspects that might be included in the WSIS Forum 2022**  
WSIS 2022 could take stock of lessons learned (2 years after the beginning of the Pandemic) of employment and labour market policy responses that harness the potential of the digital transformation while addressing potential inequalities within and between countries.

## WSIS AL C7: Innovation in Data & Technology for Climate Action

**Workshop Name:** WSIS AL C7: Innovation in Data & Technology for Climate Action

**Workshop Link:** <https://www.itu.int/net4/wsis/forum/2021/Agenda/Session/398>

**Organization:** ITU/WMO/UNEP

**Date:** Friday, 23 April 2021

### 1) Relevance with the WSIS Action Lines – please specify the Action Lines C1 to C11

As the world becomes increasingly digital, data and technology are some of the most important tools in the kit for combatting climate change and aiding countries facing disasters and extreme events. This workshop on ALC7 highlighted some key examples from the ITU, WMO and the private sector about innovative uses of ICTs to forecast and monitor the impact of natural and man-made disasters and the need for improved international collaboration through ICTs for climate action.

### 2) Did your workshop highlight any issues related to COVID-19? If yes, please explain

No

### 3) Key achievements, announcements, launches, agreements, and commitments

ICTs are useful tools to help civil society and decision makers alike to overcome challenges in understanding complex climate science, data and risk.

Making climate data and information open, free and accessible for use is a key priority for both the public and private sector.

### 4) Main outcomes highlighting the following:

#### I. Debated Issues

#### II. Quotes

“The covid-19 crisis has demonstrated the essential role of connectivity worldwide, and the importance of having a robust and resilient and secure ICT capability in place.”

– Jake Spinnler, ITU

#### III. Overall outcomes of the session highlighting

ICTs are useful tools to help civil society and decision makers alike to overcome challenges in understanding complex climate science, data and risk.

Making climate data and information open, free and accessible for use is a key priority for both the public and private sector.

### 5) Main linkages with the Sustainable Development Goals (please specify the SDGs)

1. No Poverty
2. Zero Hunger
3. Industry, Innovation, and Infrastructure
4. Life on Land
5. Climate Action
6. Partnerships for the Goals

**6) Emerging Trends related to WSIS Action Lines identified during the meeting**

n/a

**7) Suggestions for Thematic Aspects that might be included in the WSIS Forum 2022**

n/a

## WSIS ALFM C2: Infrastructure - Roundtable on Innovative investment and financing models for Last Mile Internet Connectivity Infrastructure

**Workshop Name:** WSIS ALFM C2: Infrastructure - Roundtable on Innovative investment and financing models for Last Mile Internet Connectivity Infrastructure

**Workshop Link:** <https://www.itu.int/net4/wsis/forum/2021/Agenda/Session/412>

**Organization:** ITU

**Date:** Wednesday, 28 April 2021

**1) Relevance with the WSIS Action Lines – please specify the Action Lines C1 to C11**

ALC2 – financing Last Mile Connectivity infrastructure

**2) Did your workshop highlight any issues related to COVID-19? If yes, please explain.**

Reduced access to connectivity, and reliable connectivity to face challenging times like COVID-19;

**3) Key achievements, announcements, launches, agreements, and commitments**

The session explored innovative financing and investments models for last mile connectivity and different types of financing and investment mechanisms that can contribute to develop local businesses capacity to expand coverage and bridge the digital divide.

**4) Main outcomes highlighting the following:**

**I. Debated Issues**

About half of the world population lacks access to the Internet connectivity, mostly in rural and remote areas, across developing economies. Investing in last mile connectivity infrastructure is still a challenge. It is important to develop innovative financing and investments models that can contribute to develop to expand coverage and bridge the digital divide.

Successful solutions to ensure connectivity need a deep understanding of demand constraints and willingness to adopt digital technologies together with detailed understanding of investment needs considering the specific country and subnational characteristics. Governments have an important role to adopt policies and regulation to enable the most cost-effective technological solutions and also use government resources (e.g., spectrum, USF, utilities' infrastructure) in the most effective way to support connectivity.

More stakeholders need to be involved in funding, financing and investing into the BB funding gap, including the large adoption gap.

Overall, there needs to be a coordinated and concerted effort to achieve aggressive digital inclusion targets, which incorporates proven, as well as new, technological, financial, and regulatory approaches.

- Please highlight key achievements and challenges  
Stakeholders need to be incentivized to contribute and this requires a better understanding of their differences and objectives, more locally relevant contextual information, and setting more tailored incentives to better structure methods, instruments and mechanisms for contribution, appropriate in the local context and embedded in appropriate policy and regulations.

Governments should also consider alternative approaches to expanding broadband availability and promoting competition from new entrants through wholesale open-access networks, infrastructure sharing, and increasing licensed and unlicensed access to spectrum for fixed wireless and satellite solutions. This could also include funding new business models that promote investment and facilitate the deployment in underserved areas.

## **II. Quotes**

Any model for last mile connectivity needs to consider the specific market segment it targets, alternative or blended financing sources and their cost implications, the most effective management arrangement to align incentives of stakeholders with the objective of enhancing connectivity, and the revenue generation model to ensure sustainability. (Tania Priscilla Begazo Gomez, World Bank)

Adequate national broadband connectivity strategies represent a crucial instrument to contribute to the socioeconomic development in developing countries. In this regard, the proposed actions for a sound national strategy that reduce the digital gap between urban and rural areas could be pivoted around three main pillars: (i) efficient competition, (ii) attract investment and (iii) digital skills. (Antonio Garcia Zaballos, IADB)

## **III. Overall outcomes of the session highlighting**

Local innovation, partnerships and collaboration are key to moving forward together. There are many solutions, and governments are encouraged to develop and combine, as appropriate, the locally or nationally most-relevant mechanisms in order to institute the necessary incentives and reforms to enable contributors to make even more investments.

Demand stimulation initiatives, such as digital skilling programs and the development of local applications and content, also need to be further enhanced, even where affordable fixed and mobile broadband is available.

Government investments come as a third option once commercial viability is not feasible and further regulatory reforms are not possible. Given the important demand factors that affect uptake and commercial viability, governments and stakeholder could pay even more attention to demand side interventions.

Shared Infrastructures addressing multiple essential services, Public and Private Partnerships and Innovative business models inspired by marketplace models that we can scale up access to connectivity and digital services.

**5) Main linkages with the Sustainable Development Goals (please specify the SDGs)**

**SDG9**

Goal 9 is dealing with infrastructure and the session was providing information on financing the telecommunication infrastructure.

**6) Emerging Trends related to WSIS Action Lines identified during the meeting**

About half of the world population lacks access to the Internet connectivity, mostly in rural and remote areas, across developing economies. Investing in last mile connectivity infrastructure is still a challenge. It is important to develop innovative financing and investments models that can contribute to develop to expand coverage and bridge the digital divide.

**7) Suggestions for Thematic Aspects that might be included in the WSIS Forum 2022**

## ALFM C9: Countering Digital Disinformation while upholding Freedom of Expression

**Workshop Name:** ALFM C9: Countering Digital Disinformation while upholding Freedom of Expression

**Workshop Link:** <https://www.itu.int/net4/wsis/forum/2021/Agenda/Session/362>

**Organization:** United Nations Educational, Scientific and Cultural Organization

**Date:** Friday, 30 April 2021

### 1) Relevance with the WSIS Action Lines – please specify the Action Lines C1 to C11

- C1) The role of governments and all stakeholders in the promotion of all information
- C2) Information and communication infrastructure: an essential foundation for an inclusive information society
- C3) Access to information and knowledge
- C4) Capacity building
- C5) Building confidence and security in the use of ICT
- C7) ICT applications: benefits in all aspects of life
- C8) Cultural diversity and identity, linguistic diversity and local content
- C9) Media
- C10) Ethical dimensions the Information Society
- C11) International and regional cooperation

### 2) Did your workshop highlight any issues related to COVID-19? If yes, please explain.

The World Health Organization has been challenged with managing the Infodemic as the COVID-19 pandemic has triggered a stream of misleading information, fueling distrust in science, expertise and government interventions. Shared narratives of fear, anxiety, mistrust of government intentions and misinformation has spread across the globe creating severe threats to human society.

### 3) Key achievements, announcements, launches, agreements, and commitments

Maria Ressa -2021 Laureate of the UNESCO /Guilhemmo Cano World Press Freedom Prize (May 2, 2021)

Julie Posetti - The Balancing Act Report – Interdisciplinary study addressing 11 categories of responses to disinformation (September 2020)

### 4) Main outcomes highlighting the following:

#### I. Debated Issues

Please capture highlights of the main issues discussed and interactions with audience

- Disinformation is at war with information and freedom of expression is at stake.

- Disinformation has had a heavy impact on health, human rights and democracy.
- Should there be new laws, or should we take laws that already exist in the real world to the digital world?
- The Infodemic fuels distrust in expertise, science and government. Without trust, it is difficult to stop the spread of dis/misinformation and disease. Ultimately the Infodemic can kill.
- Freedom of expression is seen (by some) as part of the problem.

Please highlight key achievements and challenges shared by the audience and/or panellists

- Disinformation has not won the game. It has created opportunity to:
  - access the “fake” information we would otherwise not have access to
  - enlist the public become active consumers of fact-checking (India) making it a participative/inclusive process
  - bring media literacy to the forefront
  - shine a light on dark channels and propaganda
  - allow more conversations with readers and users of content
  - re-strategize literacy – taking conversations into remote areas and reconnecting with community

## II. Quotes

- Please provide two important quotes from the session and the names & organisation of the person you are quoting

*“Without truth you cannot have trust, without trust you can’t do anything. You can’t have democracy, you can’t fight climate change, you can’t fight the Corona virus. You break humanity.”* **Maria Ressa /Co-Founder, Executive Editor & CEO of Rappler, Journalist, Phillipines**

*“When they (companies) say free speech, in practice, it seems to mean unfettered speech, whereas human rights through the framework of freedom of expression requires respect for media freedom. If you allow unfettered speech as a defense of free speech, as a defense against acting to protect freedom of expression rights, then ultimately it is undermining everybody’s right to know, the safety and security of public interest conversations and the people who have them, the pillars of democracy that depend on freedom of expression.”* **Julie Posetti /Global Director, International Center for Journalists, UK**

## III. Overall outcomes of the session highlighting

- main conclusions reached during the discussion
  - Incentive schemes must be put into place to prevent power and money the underlying the weaponization of the internet
  - State actors are some of the key amplifiers of disinformation
  - Internet Companies should partner with governments, organizations and independent media to combat disinformation
  - State actors should do more to track and regulate information on digital platforms
  - Women, Safety and Policy



- the vision for implementation of WSIS Action lines beyond 2015

**5) Main linkages with the Sustainable Development Goals (please specify the SDGs)**  
SDG-16

**6) Emerging Trends related to WSIS Action Lines identified during the meeting**

- Media Freedom
- Media Pluralism
- Media Independence
- Safety to Journalists

**7) Suggestions for Thematic Aspects that might be included in the WSIS Forum 2022**

## ALFM C10: Youth Approaches to an Ethical Solution for AI Challenges

**Workshop Name:** ALFM C10: Youth Approaches to an Ethical Solution for AI Challenges

**Workshop Link:** <https://www.itu.int/net4/wsis/forum/2021/Agenda/Session/356>

**Organization:** UNESCO

**Date:** Monday, 3 May 2021

**1) Relevance with the WSIS Action Lines – please specify the Action Lines C1 to C11**

C10. Ethical dimensions of the Information Society

**2) Did your workshop highlight any issues related to COVID-19? If yes, please explain.**

**3) Key achievements, announcements, launches, agreements, and commitments**

**4) Main outcomes highlighting the following:**

**I. Debated Issues**

Artificial intelligence (AI) is a frontline technology with profound implications for human beings, cultures, societies and the environment. AI has the potential to be our ally in the struggle for a more equitable, fair, and sustainable future. It is remarkable that AI generated some of the earliest alerts about the COVID-19 outbreak, even before it was confirmed, by routinely scanning hundreds or thousands of governmental and media data sources in multiple languages. This analytical capacity has also helped accelerate the discovery of the vaccines, and even understanding the protein structures. Self-learning algorithms and smart machines are playing an increasingly important role in our efforts to recover from the current crisis. Digital platforms and infrastructure have been broadened to keep our economies, our schools and our societies going.

We must always keep in mind that AI technologies also possess significant risks and challenges, especially in terms of deepening the existing divides, exacerbating gender disparities, and infringing on human dignity and human rights. This is why there are many initiatives that have emerged to ensure that these technologies help to overcome the current crisis and mitigate future risks, while tackling the downsides, in particular, UNESCO's Recommendation on the Ethics of AI.

This session looked at what is the role of the youth on how to move forward with the tools that we have and that are about to be developed. Speakers shared their perspectives on the latest policy developments focusing on the ways that young people can contribute towards beneficial development and application of AI

technologies and successful mitigation of the inherent risks. They shared their particular stories of how they contribute to that in practical terms.

## **II. Quotes**

“In order to further meaningful youth engagement and AI technologies, our survey by Young UN and Young UNESCO had some key suggestions. These ideas included: an interdisciplinary taskforce or youth ethics council on AI, the potential to create a dedicated Digital or AI Youth Envoy and forming a specialized UN organization on AI.”

- Kirsty Rancier, Young UN Focal Point for the Inter-Agency Working Group on AI of the High-Level Committee on Programmes, Chief Executives Board for Coordination, United Nations System.

“We can lie to our friends and ourselves, but not to search engines” – Volha Litvinets, Research Fellow at Carnegie Council for Ethics in International Affairs.

## **III. Overall outcomes of the session**

- Mapping of inequalities shows that ethics and inequalities have cultural and historic roots
- There is a strong link between mental health and legal consequences
- Utilizing AI will provide equal opportunity to people, including people with disability
- AI helped to identify risk of COVID for individuals with Down syndrome, which is 10 times more fatal
- There is a need to mainstream the needs of people with disabilities, as in AI they are not necessarily present as a target group for customization (e.g. example of proctoring software to watch students taking exams, where non-normative behavioural patterns of students with disabilities are not considered)
- The youth is getting more sophisticated with cultural vernacular and language, which is difficult for AI to identify
- Youth is needed as equals at the table

### **5) Main linkages with the Sustainable Development Goals (please specify the SDGs)**

5. Gender Equality

10. Reduced Inequalities

16. Peace, Justice, and Strong Institutions

### **6) Emerging Trends related to WSIS Action Lines identified during the meeting**

### **7) Suggestions for Thematic Aspects that might be included in the WSIS Forum 2022**

## Action Line C7: E-Learning: The UNESCO Global Education Coalition in Action

**Workshop Name:** Action Line C7: E-Learning: The UNESCO Global Education Coalition in Action

**Workshop Link:** <https://www.itu.int/net4/wsis/forum/2021/Agenda/Session/365>

**Organization:** United Nations Educational, Scientific and Cultural Organisation

**Date:** Tuesday, 4 May 2021

### 1) Relevance with the WSIS Action Lines – please specify the Action Lines C1 to C11

C7

### 2) Did your workshop highlight any issues related to COVID-19? If yes, please explain.

The session was focused on UNESCO's Global Education Coalition, an initiative created in March 2020, which first goal is to protect education during the COVID-19 pandemic around the globe, and some of its members activities within the coalition.

### 3) Key achievements, announcements, launches, agreements, and commitments

During this session, UNESCO presented the Coalition, its different missions and some context data, and then gave the floor to representatives of different partners of the Global Education Coalition, who shared their work in these 3 missions and how ICT has been used to benefit students and adults involved in their initiatives.

### 4) Main outcomes highlighting the following:

#### I. Debated Issues

- During the session, UNESCO, represented by Borhene Chakroun, provided an update on the numbers achieved by the Global Education Coalition, different strategies from the countries, like support to teachers. The most common support by countries studied has been on distance teaching training, followed by skills development. Some of these trainings were showcased during the session.
- In the discussion, panellists spoke about local ecosystems. These local ecosystems are not only teachers but also other stakeholders. It is important that they, regulatory bodies, civil society or private sector are involved, in order to develop, contextualize and localize the ecosystem to respond to local challenges. International solidarity and cooperation should be in the front line and that is why the Global Education Coalition was created.

- To start with the showcases, Joel Armando from Blackboard explained how they have participated in different projects, providing teacher training to teachers in 20 Caribbean countries. Gaël Le Dréau explained their model that they developed at Réseau Canopé, for the project Imagine École, that is bringing quality content and reinforcing local ecosystems, working on capacity building and bringing ICT in the educational systems to 10 countries in Western and Central Africa. The session continued with Magdalena Brier, from ProFuturo, who described their work in different fields. They allowed free access to their resources for students, 1800 hours of elementary education lessons for different subjects in 4 different languages; given the increasing demand, they also made available 160 teacher training courses. Other actions have been taken place in Latin America, Africa, where they trained over 15,000 teachers in 2020, or Spain, where 10,000 tablets were delivered to children and adolescents in vulnerable situations to continue their education.
- During the Question and Answers section, presented by Victor J. Perez-Rubio from UNESCO, panellists received a question on how they were localizing curricula. The floor was given to Gaël Le Dréau, from Réseau Canopé, who explained they work with local stakeholders for this purpose. Then, Lauren Lichtman, from Learning Equality, explained that they work with curriculum consultants to do the process of alignment. Sometimes, educators and curriculum designers do not see or realize that the kind of work they have been doing for a while with textbooks is what is happening currently with digital learning resources. For her, the key point is to have those materials reviewed and validated by not only curriculum designers working in different countries, but also ministries of education. If there is not a kind of approval, it is less likely that the materials will be used by educators. She continued explaining that they have been working in this direction in several countries, and they have learnt how long it takes to do this process along different levels and subject areas. She also mentioned the importance of building an existing alignment to avoid duplicating work. The last panellist of the session was Lauren Lichtman, from Learning Equality, who explained who they engaged with those who are not online, and who their ICT solution, Kolibri, helps those disconnected communities for not leaving education behind.

## II. Quotes

- Magdalena Brier, ProFuturo: *“The pandemic has enhanced the value of collective action, a large amount of know-how and innovation was developed to overcome obstacles and ensure the continuity of education.”*
- Joel Armando, Blackboard: *“Any professional development for teachers should be focused on reflection and collaboration, putting in the center the pedagogy and how to teach, and not the technology, which will be changing all the time.”*

## III. Overall outcomes of the session highlighting

- We have to keep in mind hybrid learning doesn't mean inclusive learning. Equity and inclusion should remain at the top of our concern. The factors of inclusion remain important, as connectivity, but also other factors we knew before COVID-19.

- We need to keep the quality and the equity in the agenda, as the numbers of drop out will be increased due to the pandemic. Val Mendes from UNESCO, and moderator of the session, makes a call for action, inviting anyone participating in the session to join the Coalition by bringing in their organisations, to share their ideas with the rest of members and bring some lights to the crisis transforming education.

**5) Main linkages with the Sustainable Development Goals (please specify the SDGs)**

This session is focused on part of the work of the Global Education Coalition. The coalition is committed to equity and inclusion in access to quality education and lifelong learning for all, in line with the fourth Sustainable Development Goal (SDG4), leaving no one behind. A strong partnership with different stakeholders, all working in the same direction will facilitate achieving this goal.

**6) Emerging Trends related to WSIS Action Lines identified during the meeting**

This session was related to WSIS Action Line C7 E-Learning. During the session audience heard different initiatives that used e-learning for providing teacher training, or digital resources and platforms that arrived to those with needs during the pandemic, among other solutions.

**7) Suggestions for Thematic Aspects that might be included in the WSIS Forum 2022**

How ICT has changed the way educators teach after the pandemic, and differences between countries and realities.

## WSIS AL C7: Innovation in Data & Technology for Climate Action

**Workshop Name:** WSIS AL C7: Innovation in Data & Technology for Climate Action

**Workshop Link:** <https://www.itu.int/net4/wsis/forum/2021/Agenda/Session/398>

**Organization:** ITU/WMO/UNEP

**Date:** Friday, 23 April 2021

### 1) Relevance with the WSIS Action Lines – please specify the Action Lines C1 to C11

As the world becomes increasingly digital, data and technology are some of the most important tools in the kit for combatting climate change and aiding countries facing disasters and extreme events. This workshop on ALC7 highlighted some key examples from the ITU, WMO and the private sector about innovative uses of ICTs to forecast and monitor the impact of natural and man-made disasters and the need for improved international collaboration through ICTs for climate action.

### 2) Did your workshop highlight any issues related to COVID-19? If yes, please explain

No

### 3) Key achievements, announcements, launches, agreements, and commitments

ICTs are useful tools to help civil society and decision makers alike to overcome challenges in understanding complex climate science, data and risk.

Making climate data and information open, free and accessible for use is a key priority for both the public and private sector.

### 4) Main outcomes highlighting the following:

#### I. Debated Issues

#### II. Quotes

“The covid-19 crisis has demonstrated the essential role of connectivity worldwide, and the importance of having a robust and resilient and secure ICT capability in place.”

– Jake Spinnler, ITU

#### III. Overall outcomes of the session highlighting

ICTs are useful tools to help civil society and decision makers alike to overcome challenges in understanding complex climate science, data and risk.

Making climate data and information open, free and accessible for use is a key priority for both the public and private sector.

### 5) Main linkages with the Sustainable Development Goals (please specify the SDGs)

1. No Poverty
2. Zero Hunger
3. Industry, Innovation, and Infrastructure
4. Life on Land
5. Climate Action
6. Partnerships for the Goals

**6) Emerging Trends related to WSIS Action Lines identified during the meeting**

n/a

**7) Suggestions for Thematic Aspects that might be included in the WSIS Forum 2022**

n/a



## WSIS ALFM C2: Infrastructure - Roundtable on Innovative investment and financing models for Last Mile Internet Connectivity Infrastructure

**Workshop Name:** WSIS ALFM C2: Infrastructure - Roundtable on Innovative investment and financing models for Last Mile Internet Connectivity Infrastructure

**Workshop Link:** <https://www.itu.int/net4/wsis/forum/2021/Agenda/Session/412>

**Organization:** ITU

**Date:** Wednesday, 28 April 2021

### 1) Relevance with the WSIS Action Lines – please specify the Action Lines C1 to C11

ALC2 – financing Last Mile Connectivity infrastructure

### 2) Did your workshop highlight any issues related to COVID-19? If yes, please explain.

Reduced access to connectivity, and reliable connectivity to face challenging times like COVID-19;

### 3) Key achievements, announcements, launches, agreements, and commitments

The session explored innovative financing and investments models for last mile connectivity and different types of financing and investment mechanisms that can contribute to develop local businesses capacity to expand coverage and bridge the digital divide.

### 4) Main outcomes highlighting the following:

#### I. Debated Issues

About half of the world population lacks access to the Internet connectivity, mostly in rural and remote areas, across developing economies. Investing in last mile connectivity infrastructure is still a challenge. It is important to develop innovative financing and investments models that can contribute to develop to expand coverage and bridge the digital divide.

Successful solutions to ensure connectivity need a deep understanding of demand constraints and willingness to adopt digital technologies together with detailed understanding of investment needs considering the specific country and subnational characteristics. Governments have an important role to adopt policies and regulation to enable the most cost-effective technological solutions and also use government resources (e.g., spectrum, USF, utilities' infrastructure) in the most effective way to support connectivity.

More stakeholders need to be involved in funding, financing and investing into the BB funding gap, including the large adoption gap.

Overall, there needs to be a coordinated and concerted effort to achieve aggressive digital inclusion targets, which incorporates proven, as well as new, technological, financial, and regulatory approaches.

- Please highlight key achievements and challenges

Stakeholders need to be incentivized to contribute and this requires a better understanding of their differences and objectives, more locally relevant contextual information, and setting more tailored incentives to better structure methods, instruments and mechanisms for contribution, appropriate in the local context and embedded in appropriate policy and regulations.

Governments should also consider alternative approaches to expanding broadband availability and promoting competition from new entrants through wholesale open-access networks, infrastructure sharing, and increasing licensed and unlicensed access to spectrum for fixed wireless and satellite solutions. This could also include funding new business models that promote investment and facilitate the deployment in underserved areas.

## **II. Quotes**

Any model for last mile connectivity needs to consider the specific market segment it targets, alternative or blended financing sources and their cost implications, the most effective management arrangement to align incentives of stakeholders with the objective of enhancing connectivity, and the revenue generation model to ensure sustainability. (Tania Priscilla Begazo Gomez, World Bank)

Adequate national broadband connectivity strategies represent a crucial instrument to contribute to the socioeconomic development in developing countries. In this regard, the proposed actions for a sound national strategy that reduce the digital gap between urban and rural areas could be pivoted around three main pillars: (i) efficient competition, (ii) attract investment and (iii) digital skills. (Antonio Garcia Zaballos, IADB)

## **III. Overall outcomes of the session highlighting**

Local innovation, partnerships and collaboration are key to moving forward together. There are many solutions, and governments are encouraged to develop and combine, as appropriate, the locally or nationally most-relevant mechanisms in order to institute the necessary incentives and reforms to enable contributors to make even more investments.

Demand stimulation initiatives, such as digital skilling programs and the development of local applications and content, also need to be further enhanced, even where affordable fixed and mobile broadband is available.

Government investments come as a third option once commercial viability is not feasible and further regulatory reforms are not possible. Given the important demand factors that affect uptake and commercial viability, governments and stakeholder could pay even more attention to demand side interventions.

Shared Infrastructures addressing multiple essential services, Public and Private Partnerships and Innovative business models inspired by marketplace models that we can scale up access to connectivity and digital services.

**5) Main linkages with the Sustainable Development Goals (please specify the SDGs)  
SDG9**

Goal 9 is dealing with infrastructure and the session was providing information on financing the telecommunication infrastructure.

**6) Emerging Trends related to WSIS Action Lines identified during the meeting**

About half of the world population lacks access to the Internet connectivity, mostly in rural and remote areas, across developing economies. Investing in last mile connectivity infrastructure is still a challenge. It is important to develop innovative financing and investments models that can contribute to develop to expand coverage and bridge the digital divide.

**7) Suggestions for Thematic Aspects that might be included in the WSIS Forum 2022**

## ALFM C9: Countering Digital Disinformation while upholding Freedom of Expression

**Workshop Name:** ALFM C9: Countering Digital Disinformation while upholding Freedom of Expression

**Workshop Link:** <https://www.itu.int/net4/wsis/forum/2021/Agenda/Session/362>

**Organization:** United Nations Educational, Scientific and Cultural Organization

**Date:** Friday, 30 April 2021

### 1) Relevance with the WSIS Action Lines – please specify the Action Lines C1 to C11

- C1) The role of governments and all stakeholders in the promotion of all information
- C2) Information and communication infrastructure: an essential foundation for an inclusive information society
- C3) Access to information and knowledge
- C4) Capacity building
- C5) Building confidence and security in the use of ICT
- C7) ICT applications: benefits in all aspects of life
- C8) Cultural diversity and identity, linguistic diversity and local content
- C9) Media
- C10) Ethical dimensions the Information Society
- C11) International and regional cooperation

### 2) Did your workshop highlight any issues related to COVID-19? If yes, please explain.

The World Health Organization has been challenged with managing the Infodemic as the COVID-19 pandemic has triggered a stream of misleading information, fueling distrust in science, expertise and government interventions. Shared narratives of fear, anxiety, mistrust of government intentions and misinformation has spread across the globe creating severe threats to human society.

### 3) Key achievements, announcements, launches, agreements, and commitments

Maria Ressa -2021 Laureate of the UNESCO /Guilhemmo Cano World Press Freedom Prize (May 2, 2021)

Julie Posetti - The Balancing Act Report – Interdisciplinary study addressing 11 categories of responses to disinformation (September 2020)

### 4) Main outcomes highlighting the following:

#### I. Debated Issues

Please capture highlights of the main issues discussed and interactions with audience

- Disinformation is at war with information and freedom of expression is at stake.

- Disinformation has had a heavy impact on health, human rights and democracy.
- Should there be new laws, or should we take laws that already exist in the real world to the digital world?
- The Infodemic fuels distrust in expertise, science and government. Without trust, it is difficult to stop the spread of dis/misinformation and disease. Ultimately the Infodemic can kill.
- Freedom of expression is seen (by some) as part of the problem.

Please highlight key achievements and challenges shared by the audience and/or panellists

- Disinformation has not won the game. It has created opportunity to:
  - access the “fake” information we would otherwise not have access to
  - enlist the public become active consumers of fact-checking (India) making it a participative/inclusive process
  - bring media literacy to the forefront
  - shine a light on dark channels and propaganda
  - allow more conversations with readers and users of content
  - re-strategize literacy – taking conversations into remote areas and reconnecting with community

## II. Quotes

- Please provide two important quotes from the session and the names & organisation of the person you are quoting

*“Without truth you cannot have trust, without trust you can’t do anything. You can’t have democracy, you can’t fight climate change, you can’t fight the Corona virus. You break humanity.”* **Maria Ressa /Co-Founder, Executive Editor & CEO of Rappler, Journalist, Phillipines**

*“When they (companies) say free speech, in practice, it seems to mean unfettered speech, whereas human rights through the framework of freedom of expression requires respect for media freedom. If you allow unfettered speech as a defense of free speech, as a defense against acting to protect freedom of expression rights, then ultimately it is undermining everybody’s right to know, the safety and security of public interest conversations and the people who have them, the pillars of democracy that depend on freedom of expression.”* **Julie Posetti /Global Director, International Center for Journalists, UK**

## III. Overall outcomes of the session highlighting

- main conclusions reached during the discussion
  - Incentive schemes must be put into place to prevent power and money the underlying the weaponization of the internet
  - State actors are some of the key amplifiers of disinformation
  - Internet Companies should partner with governments, organizations and independent media to combat disinformation
  - State actors should do more to track and regulate information on digital platforms
  - Women, Safety and Policy

- the vision for implementation of WSIS Action lines beyond 2015

**5) Main linkages with the Sustainable Development Goals (please specify the SDGs)**  
SDG-16

**6) Emerging Trends related to WSIS Action Lines identified during the meeting**

- Media Freedom
- Media Pluralism
- Media Independence
- Safety to Journalists

**7) Suggestions for Thematic Aspects that might be included in the WSIS Forum 2022**

## ALFM C10: Youth Approaches to an Ethical Solution for AI Challenges

**Workshop Name:** ALFM C10: Youth Approaches to an Ethical Solution for AI Challenges

**Workshop Link:** <https://www.itu.int/net4/wsis/forum/2021/Agenda/Session/356>

**Organization:** UNESCO

**Date:** Monday, 3 May 2021

**1) Relevance with the WSIS Action Lines – please specify the Action Lines C1 to C11**

C10. Ethical dimensions of the Information Society

**2) Did your workshop highlight any issues related to COVID-19? If yes, please explain.**

**3) Key achievements, announcements, launches, agreements, and commitments**

**4) Main outcomes highlighting the following:**

**I. Debated Issues**

Artificial intelligence (AI) is a frontline technology with profound implications for human beings, cultures, societies and the environment. AI has the potential to be our ally in the struggle for a more equitable, fair, and sustainable future. It is remarkable that AI generated some of the earliest alerts about the COVID-19 outbreak, even before it was confirmed, by routinely scanning hundreds or thousands of governmental and media data sources in multiple languages. This analytical capacity has also helped accelerate the discovery of the vaccines, and even understanding the protein structures. Self-learning algorithms and smart machines are playing an increasingly important role in our efforts to recover from the current crisis. Digital platforms and infrastructure have been broadened to keep our economies, our schools and our societies going.

We must always keep in mind that AI technologies also possess significant risks and challenges, especially in terms of deepening the existing divides, exacerbating gender disparities, and infringing on human dignity and human rights. This is why there are many initiatives that have emerged to ensure that these technologies help to overcome the current crisis and mitigate future risks, while tackling the downsides, in particular, UNESCO's Recommendation on the Ethics of AI.

This session looked at what is the role of the youth on how to move forward with the tools that we have and that are about to be developed. Speakers shared their

perspectives on the latest policy developments focusing on the ways that young people can contribute towards beneficial development and application of AI technologies and successful mitigation of the inherent risks. They shared their particular stories of how they contribute to that in practical terms.

## **II. Quotes**

“In order to further meaningful youth engagement and AI technologies, our survey by Young UN and Young UNESCO had some key suggestions. These ideas included: an interdisciplinary taskforce or youth ethics council on AI, the potential to create a dedicated Digital or AI Youth Envoy and forming a specialized UN organization on AI.”  
- Kirsty Rancier, Young UN Focal Point for the Inter-Agency Working Group on AI of the High-Level Committee on Programmes, Chief Executives Board for Coordination, United Nations System.

“We can lie to our friends and ourselves, but not to search engines” – Volha Litvinets, Research Fellow at Carnegie Council for Ethics in International Affairs.

## **III. Overall outcomes of the session**

- Mapping of inequalities shows that ethics and inequalities have cultural and historic roots
- There is a strong link between mental health and legal consequences
- Utilizing AI will provide equal opportunity to people, including people with disability
- AI helped to identify risk of COVID for individuals with Down syndrome, which is 10 times more fatal
- There is a need to mainstream the needs of people with disabilities, as in AI they are not necessarily present as a target group for customization (e.g. example of proctoring software to watch students taking exams, where non-normative behavioural patterns of students with disabilities are not considered)
- The youth is getting more sophisticated with cultural vernacular and language, which is difficult for AI to identify
- Youth is needed as equals at the table

### **5) Main linkages with the Sustainable Development Goals (please specify the SDGs)**

5. Gender Equality

10. Reduced Inequalities

16. Peace, Justice, and Strong Institutions

### **6) Emerging Trends related to WSIS Action Lines identified during the meeting**

### **7) Suggestions for Thematic Aspects that might be included in the WSIS Forum 2022**



## Action Line C7: E-Learning: The UNESCO Global Education Coalition in Action

**Workshop Name:** Action Line C7: E-Learning: The UNESCO Global Education Coalition in Action

**Workshop Link:** <https://www.itu.int/net4/wsis/forum/2021/Agenda/Session/365>

**Organization:** United Nations Educational, Scientific and Cultural Organisation

**Date:** Tuesday, 4 May 2021

### 1) Relevance with the WSIS Action Lines – please specify the Action Lines C1 to C11

C7

### 2) Did your workshop highlight any issues related to COVID-19? If yes, please explain.

The session was focused on UNESCO's Global Education Coalition, an initiative created in March 2020, which first goal is to protect education during the COVID-19 pandemic around the globe, and some of its members activities within the coalition.

### 3) Key achievements, announcements, launches, agreements, and commitments

During this session, UNESCO presented the Coalition, its different missions and some context data, and then gave the floor to representatives of different partners of the Global Education Coalition, who shared their work in these 3 missions and how ICT has been used to benefit students and adults involved in their initiatives.

### 4) Main outcomes highlighting the following:

#### I. Debated Issues

- During the session, UNESCO, represented by Borhene Chakroun, provided an update on the numbers achieved by the Global Education Coalition, different strategies from the countries, like support to teachers. The most common support by countries studied has been on distance teaching training, followed by skills development. Some of these trainings were showcased during the session.
- In the discussion, panellists spoke about local ecosystems. These local ecosystems are not only teachers but also other stakeholders. It is important that they, regulatory bodies, civil society or private sector are involved, in order to develop, contextualize and localize the ecosystem to respond to local challenges. International solidarity and cooperation should be in the front line and that is why the Global Education Coalition was created.
- To start with the showcases, Joel Armando from Blackboard explained how they have participated in different projects, providing teacher training to teachers in 20 Caribbean countries. Gaël Le Dréau explained their model that they

developed at Réseau Canopé, for the project Imagine École, that is bringing quality content and reinforcing local ecosystems, working on capacity building and bringing ICT in the educational systems to 10 countries in Western and Central Africa. The session continued with Magdalena Brier, from ProFuturo, who described their work in different fields. They allowed free access to their resources for students, 1800 hours of elementary education lessons for different subjects in 4 different languages; given the increasing demand, they also made available 160 teacher training courses. Other actions have been taken place in Latin America, Africa, where they trained over 15,000 teachers in 2020, or Spain, where 10,000 tablets were delivered to children and adolescents in vulnerable situations to continue their education.

- During the Question and Answers section, presented by Victor J. Perez-Rubio from UNESCO, panellists received a question on how they were localizing curricula. The floor was given to Gaël Le Dréau, from Réseau Canopé, who explained they work with local stakeholders for this purpose. Then, Lauren Lichtman, from Learning Equality, explained that they work with curriculum consultants to do the process of alignment. Sometimes, educators and curriculum designers do not see or realize that the kind of work they have been doing for a while with textbooks is what is happening currently with digital learning resources. For her, the key point is to have those materials reviewed and validated by not only curriculum designers working in different countries, but also ministries of education. If there is not a kind of approval, it is less likely that the materials will be used by educators. She continued explaining that they have been working in this direction in several countries, and they have learnt how long it takes to do this process along different levels and subject areas. She also mentioned the importance of building an existing alignment to avoid duplicating work. The last panellist of the session was Lauren Lichtman, from Learning Equality, who explained who they engaged with those who are not online, and who their ICT solution, Kolibri, helps those disconnected communities for not leaving education behind.

## II. Quotes

- Magdalena Brier, ProFuturo: *“The pandemic has enhanced the value of collective action, a large amount of know-how and innovation was developed to overcome obstacles and ensure the continuity of education.”*
- Joel Armando, Blackboard: *“Any professional development for teachers should be focused on reflection and collaboration, putting in the center the pedagogy and how to teach, and not the technology, which will be changing all the time.”*

### I. Overall outcomes of the session highlighting main conclusions reached during the discussion

- We have to keep in mind hybrid learning doesn't mean inclusive learning. Equity and inclusion should remain at the top of our concern. The factors of inclusion remain important, as connectivity, but also other factor we knew before COVID-19.
- We need to keep the quality and the equity in the agenda, as the numbers of drop out will be increased due to the pandemic. Val Mendes from UNESCO, and moderator of the session, makes a call for action, inviting anyone participating in the session to join the

Coalition by bringing in their organisations, to share their ideas with the rest of members and bring some lights to the crisis transforming education.

**5) Main linkages with the Sustainable Development Goals (please specify the SDGs)**

This session is focused on part of the work of the Global Education Coalition. The coalition is committed to equity and inclusion in access to quality education and lifelong learning for all, in line with the fourth Sustainable Development Goal (SDG4), leaving no one behind. A strong partnership with different stakeholders, all working in the same direction will facilitate achieving this goal.

**6) Emerging Trends related to WSIS Action Lines identified during the meeting**

This session was related to WSIS Action Line C7 E-Learning. During the session audience heard different initiatives that used e-learning for providing teacher training, or digital resources and platforms that arrived to those with needs during the pandemic, among other solutions.

**7) Suggestions for Thematic Aspects that might be included in the WSIS Forum 2022**

How ICT has changed the way educators teach after the pandemic, and differences between countries and realities.

## ALFM C3: Advancing Internet Universality for responding the pandemic and supporting SDGs

**Workshop Name:** ALFM C3: Advancing Internet Universality for responding the pandemic and supporting SDGs

**Workshop Link:** <https://www.itu.int/net4/wsis/forum/2021/Agenda/Session/367>

**Organization:** UNESCO

**Date:** Wednesday, 5 May 2021

### 1) Relevance with the WSIS Action Lines – please specify the Action Lines C1 to C11

Internet Universality encompass all WSIS Action lines and particularly contributes to the Line 3 Access, Line 9 media, Line 10 Ethics and Line 11 on international cooperation since it is a comprehensive framework to assess and improve digital transformation in adhering to international standards of human rights, openness, accessible by all and multi-stakeholder participation.

### 2) Did your workshop highlight any issues related to COVID-19? If yes, please explain.

The workshop highlighted the fact that the COVID-19 pandemic has reminded the world of the importance of the Internet, as a window to education, access to information, health, culture and countless other aspects of daily life. UNESCO's Internet Universality Indicators (IUIs) project was recognized as a holistic tool, relevant to both developed countries and global south, to help the world respond and recover from the COVID-19 pandemic and achieve 2030 Agenda for Sustainable Development Goals.

"There is a need for a follow-up study to evaluate the impact of the COVID-19 pandemic on digital environments. UNESCO must reflect on actions to further support countries that need to update their assessments." - Grace Githaiga from the Kenya ICT Action Network (KICTANet).

### 3) Key achievements, announcements, launches, agreements, and commitments

- UNESCO took this session to share good practice and engage with the WSIS community and stakeholders who are interested in implementing the project in their national environments.
- UNESCO, national leading experts and international partners have agreed to strengthen their partnerships and synergies to implement Internet Universality principles and apply Internet indicators in more countries.

- UNESCO invited WSIS stakeholders to join Dynamic Coalition of Internet Universality Indicators and encouraged more countries and stakeholders to conduct voluntary assessment of IUIs.
- It was announced that the national assessment of IUIs in Germany was completed and should be launched in the upcoming months.
- The new Windhoek Declaration was developed and signed by various media organizations on the occasion of the World Press Freedom day 2021. with updated goals to formulate sustainable development policies and foster freedom of expression, media viability, citizens empowerment and literacy.

#### 4) Main outcomes highlighting the following:

##### II. Debated Issues

- Please capture highlights of the main issues discussed and interactions with audience
- Speakers highlighted the fact that the IUIs framework allow stakeholders from various sectors to learn and provide inputs to reduce the current friction and digital divide enhanced by the pandemic. They also underlined the importance of ethics and deontology for the development of digital landscapes and the achievement of the SDGs.
- They discussed the fact that Internet must respect the rights of each user as it is a “human space” that hosts human interactions. The IUIs framework was considered as a holistic tool to help shape this human space with a human-Rights based and multistakeholder approach.
- Participants and speakers exchanged on the relevance of the IUIs on the media sector especially to measure the reliability of information in times of COVID.
  - Please highlight key achievements and challenges shared by the audience and/or panellists
- International stakeholders and partners reaffirmed their commitment to collaborate with UNESCO to advance the IUIs and ROAM principles across countries
- Speakers pointed out challenges in terms of digital divide and Internet connectivity enhanced by the COVID-19 pandemic, especially in the field of education. for countering the Covid-19 in the country, and pointed out the need for a follow-up study to evaluate the impact of the COVID-19 pandemic on digital environments

##### III. Quotes

“By Internet Universality, UNESCO firmly stands for four fundamental ROAM principle: an Internet based on human Rights, Open, Accessibly to all and nurtured by Multi-stakeholder participation” - Marielza Oliveira, UNESCO’s Director for Partnerships and Operational Programme Monitoring

“ISOC supports the IUIs project because of its multi-stakeholder approach that keeps the government and other entities such as the WSIS community engaged to assess Internet landscapes and foster policy reforms at national level.” - Constance Bommelaer, Area Vice President on Institutional Relations of the Internet Society (ISOC)

“The national assessment of IUIs is crucial for media organizations which are committed to public interest as they are keen on assessing the quality of the current digital environment” - Giacomo Mazzone, Representative of the World Broadcasting Union (WBU/EBU) at ICANN GAC.

“There is a future-oriented dimension regarding sustainability in the IUIs framework that can help formulate better policies for a better future” - Matthias Kettemann, Head of Research Program, Leibniz Institute for Media Research | Hans-Bredow-Institut (HBI)

“The IUIs framework provides insightful evidence on current trends for the media sector and enhancing the sustainability and viability of public-interested journalism and media.” - Mira Milosevic, Executive Director at the Global Forum for Media Development (GFMD)

“The **national assessment and implementation process** have rolled out across five continents and its transformative impact on policy improvement has been evident particularly in experimenting and enhancing the multi-stakeholder approach and mechanism at the national level, as well as fostering digital collaboration in line with the [Secretary-General's Roadmap for Digital Cooperation](#) at the international and regional levels” - Xianhong Hu, Programme Specialist and Focal point of the IUIs project at UNESCO.

#### **IV. Overall outcomes of the session highlighting**

- **main conclusions reached during the discussion**

- All participants agreed that Internet Universality can be achieved through a long-lasting effort and collaboration between all relevant actors and stakeholders for a better Internet for all, in spite of the COVID-19 pandemic.
- The Internet Universality Indicators, are not an index for a comparative study, but a collage of evidence to be gathered including quantitative, qualitative and institutional analysis to draw a comprehensive picture of the overall internet environment, of how well it adheres to ROAM principles, and of what needs to be improved.
- Panelists agreed that the Indicators will continue to shape and guide the Internet governance debate in the future.

- **the vision for implementation of WSIS Action lines beyond 2015**

UNESCO’s Internet Universality Indicators (IUIs) project was recognized as a holistic tool, relevant to both developed countries and global south, to help the world respond and recover from the COVID-19 pandemic and achieve 2030 Agenda for Sustainable Development Goals. Therefore, UNESCO vows to continue advocating for the IUIs assessment to be conducted in more countries to contribute to formulating responses for the WSIS Actions Line 3 on Access, Line 9 on media, Line 10 on Ethics and Line 11 on international cooperation.

**5) Main linkages with the Sustainable Development Goals (please specify the SDGs)**

This session allowed UNESCO to present how Internet Universality foster the national sustainable development and how the Dynamic Coalition of IUIs can empower stakeholders and experts as a shared space to foster the development of their national digital and social environments via the national assessment of Internet Universality Indicators. The implementation process of Internet Universality will particularly tackle the structural issues to share knowledge, lessons learned and good practices for the completion of the Goals 4,5, 10, 16 and 17 of the 2030 Agenda for Sustainable Development Goals.

**6) Emerging Trends related to WSIS Action Lines identified during the meeting**

Media viability, Access to information, Access to education in midst of COVID-19, Digital sustainability, Disinformation, Digital collaboration, Digital divide, Artificial Intelligence

**7) Suggestions for Thematic Aspects that might be included in the WSIS Forum 2022**

Internet and climate change, Digital divide, Post-COVID-19 Internet

## Digital government transformation

**Workshop Name:** Digital government transformation

**Workshop Link:** <https://www.itu.int/net4/wsis/forum/2021/Agenda/Session/411>

**Organization:** United Nations Department of Economic and Social Affairs

**Date:** Wednesday, 5 May 2021

### 1) Relevance with the WSIS Action Lines – please specify the Action Lines C1 to C11

- C1 - The role of public governance authorities and all stakeholders in the promotion of ICTs for development,
- C7 - ICT Applications: E-government,
- C11 - International and regional cooperation

### 2) Did your workshop highlight any issues related to COVID-19? If yes, please explain.

Digital ID systems and artificial intelligence driven software helped governments to roll out vaccines faster during the pandemic. It has also been noted that usage of digital government services have exponentially increased during the pandemic. UN DESA also compiled a list of digital government applications in response to the pandemic, which can be found by following the link below:

<https://publicadministration.un.org/en/Themes/Digital-Government/Good-Practices-for-Digital-Government>

### 3) Key achievements, announcements, launches, agreements, and commitments

Consultations in preparation for the United Nations E-Government Survey 2022 will continue and participants can see the latest progress by following the link below: <https://publicadministration.un.org/en/Research/UN-e-Government-Surveys>

There was strong support by participants for building of a global digital government network for sharing information, expertise and partnerships.

### 4) Main outcomes highlighting the following: In addition to WSIS action lines C1 and C11, this session served as a consultation session with stakeholders to gather feedback and suggestions for the UN E-Government Survey 2022. Since its inception in 2001, the United Nations E-Government Survey has become an indispensable ranking, mapping and measuring development tool for digital ministers, policymakers and analysts delving into comparative analysis and contemporary research on e-government.

#### I. Debated Issues

- Linking digital government to sustainable development goals are important in to capture multidimensional impact of digital transformation.
- It is important to include UN regional commissions while assessing the e-government development.



- Historical data of the UN E-Government Survey is one of its strengths.
- Assessing e-government development at local levels can help to measure the impact such as with local surveys asking people about their experience with online government services.
- Pilot studies on new features can be a good way of extending the coverage of the United Nations E-Government Survey.
- A well-functioning digital government network can increase the impact of the Survey and provide further outreach.
- Digital government in some countries is running the deployment of broadband services to rural areas. Governments that are noticing that the services are not used in some parts of the country, and thus expanding broadband services to those areas.
- E-government is also contributing to the green energy by reduction of paper and in turn saving trees, by cutting energy usage via less visits to government offices.
- Collecting statistics about the use of digital government services can give hints to public officials in which services they can further concentrate in further improving.
- Expanding the focus from national assessment to local assessment such as smaller cities and also to other institutions such as schools can have greater impact on the lives of people since local governments in general are closer to public. Related to that, capabilities of large and small cities may be completely different, and these comparative analyses can give us some further ideas in digital government investment in different jurisdictions.
- It is noted that the Survey is not directly measuring the digital capacities of governments as well as people using online services. Both aspects are noted as important building blocks of a well-functioning digital government system.

## II. Quotes

- “Digitalization is not just the priority, but, as well as necessity to change people lives and advance our economy, hard work for the past few years, fast forward today.” Ms. Marta Arsovska Tomovska, Director, Team for Public Administration Reform, Office of the Prime Minister, Serbia
- “How we spend money on digital as a core part and making sure that we're actually buying sustainable things and things that we can support over time is a key factor of success in digital government”. Ms. Liz Lutgendorff, Senior Analyst, Cabinet Office, Digital Government service, United Kingdom

- ## III. Overall outcomes of the session highlighting:
- The suggestions included to work closely with regional commissions in gathering data, to link the Survey methodology with the sustainable development goals, to give more weight to the online service index component of the Survey, to measure integrated services which may not be visible online, to consider digital maturity of a country and pay attention how data is used in delivering public services, to use indicators in measuring digital skills, to pay attention to usage side and come up with proxies on how the online services are used by people, and how effective governments are in delivering these services, to publish the Survey more often than every 2 years, to include more cities in the

assessment instead of only selecting largest city from a country, and to measure impact of government portals as well as digital capacities of both public officials and people using these services. There were also suggestions on the need to strengthen the partnerships and collaboration with the different digital government communities, the need to explore new and innovative approaches through ad-hoc studies and pilot research projects and the need for more e-Government survey-oriented capacity development initiatives for developing countries.

**5) Main linkages with the Sustainable Development Goals**

It is noted that promotion of ICTs, partnerships and e-government are cross-cutting issues across the SDGs and they are enablers for all 17 goals.

**6) Emerging Trends related to WSIS Action Lines identified during the meeting**

Personalized digital government services, and/or processes automatically handled by the government systems so people do not need to take any action from their side. These are sometimes referred as proactive and anticipatory services.

**7) Suggestions for Thematic Aspects that might be included in the WSIS Forum 2022**

Seamless government services, innovative ways of measuring digital government.

## ALFM C7: E-Business

**Workshop Name:** ALFM C7: E-Business

**Workshop Link:** <https://www.itu.int/net4/wsis/forum/2021/Agenda/Session/388>

**Organization:** United Nations Conference on Trade and Development/Universal Postal Union/International Trade Centre

**Date:** Thursday, 6 May 2021

## ALFM C7: E-Science: Revisiting Openness for Science and Sustainable Development

**Workshop Name:** ALFM C7: E-Science: Revisiting Openness for Science and Sustainable Development

**Workshop Link:** <https://www.itu.int/net4/wsis/forum/2021/Agenda/Session/368>

**Organization:** UNESCO

**Date:** Friday, 7 May 2021

## WSIS Action Line C7: E-Agriculture

**Workshop Name:** WSIS Action Line C7: E-Agriculture

**Workshop Link:** <https://www.itu.int/net4/wsis/forum/2021/Agenda/Session/260>

**Organization:** Food and Agriculture Organization of the United Nations, Zhejiang University, International Telecommunication Union

**Date:** Friday, 7 May 2021

### 1) Relevance with the WSIS Action Lines – please specify the Action Lines C1 to C11

The innovative applications of digital technology are key to transform the food and agriculture sector, address the new emerging global challenges and achieve the SDGs in line with the WSIS Action Lines. FAO has facilitated WSIS Action Line C7 E-Agriculture since 2005, using ICT (information and communication technologies) applications for agriculture. At WSIS 2021, it has been concentrating on E-commerce for Agriculture and Rural Development, together with ITU and Zhejiang University, with the aim of enhancing the knowledge and practice exchanges in the field of e-commerce by fostering discussions with a wide range of experts coming from various organizations, institutions, academics, as well as the private sector. This choice was strategic as among many digital technologies related to development, e-commerce now stands out as a unique engine of growth for digital agriculture and as it significantly fosters economic growth by instantly connecting buyers and sellers, reducing transaction costs, avoiding dealing face to face and creating a new niche market tailored to the specific needs of the consumers that subsequently improves the livelihoods of many, especially to bridge the digital gaps for small and family farmers.

### 2) Did your workshop highlight any issues related to COVID-19? If yes, please explain.

The agricultural sector is going to face enormous challenges to feed the 9.6 billion people who will inhabit the planet by 2050, and food production must increase by 70% by 2050 to be able to cover these needs. The COVID-19 pandemic has resulted in severe economic and social impacts around the world this year. In this context of uncertainty and economic slowdown, Innovation, digital technology and entrepreneurship have become a powerful engine of economic recovery during and after the epidemic and are key in the process of transforming this agri-food sector to address development challenges to achieve the Sustainable Development Goals (SDGs).

Online markets enable indeed industrial products to reach rural areas and agricultural products to reach urban ones, breaking the barriers of factor mobility in both rural and urban areas, updating the production exchanges, increasing the income of farmers, and stimulating the agricultural supply-side structural reform. They have been the bellwether of economic development in rural areas, helping rural revitalization, and assisting impoverished areas in poverty relief through the supply of food production during the COVID-19 pandemic difficult times.

The support to digital solutions is then more essential than ever and e-commerce can play an important role in an inclusive recovery and digital transformation in agri-food sector.

### **3) Key achievements, announcements, launches, agreements, and commitments**

With 433 participants attending from all over the world, and 1,133 registrations, the great interest sparked by the session proves that innovation, digitalization and entrepreneurship are key nowadays to transform the agriculture and foods systems sector for a sustainable future.

The event marked another milestone in the collaboration between FAO, ITU and ZJU as this jointly organized webinar aimed to enhance cross-fertilization of ideas, innovation, knowledge and practices in the field of rural e-commerce that has now emerged as a tool to provide advanced technical conditions that can provide effective solutions, necessary to tackle next century's challenges in the agri-food sector.

E-commerce application scenarios applying to diverse regions of the world (China, Africa, Latin America and the Caribbean) were specifically discussed, such as how e-commerce helps to address the problem of the sales and distribution of agricultural products, how to promote the employment and entrepreneurship of rural youth through e-commerce, how online sales data guide the improvement of quality and quantity of agriculture products and promote rural and agricultural development, etc. The focus was on how e-commerce can impact rural development positively in this new era of digital agriculture, boosting farmers' livelihoods.

During this session, the overview of the 'Digital Agriculture Report: Rural E-commerce: Experiences from China' was also presented and welcomed, as a fruit of the successful collaboration between FAO and ZJU, and which aim is to contribute further to the discussion on e-commerce for agriculture and rural development at the international community level.

FAO-Zhejiang University had already co-organized the 2019 China Rural Revitalization and Belt and Road Initiative International Rural Development Forum in 2019 and the Digital Agriculture Forum and Global AgrilInno Challenge in December 2020 to enhance knowledge exchange in digital agriculture and empower youth through innovation and entrepreneurship to contribute to SDG 1 (No Poverty) and SDG2 (Zero Hunger). The upcoming launch of the report is expected to be the first step towards the publication of yearly series that will further tighten the collaboration between FAO and ZJU in the field of digital agriculture and expand through more partners.

### **4) Main outcomes highlighting the following:**

#### **I. Debated Issues**

- Please capture highlights of the main issues discussed and interactions with audience

Rural e-commerce can be considered as a business activity carried out through electronic data transmission technology, which can eliminate the time and space barriers to information

transmission and exchange in traditional business activities, enhancing efficiency and effectiveness in delivery and value chains in agri-food systems.

The joint presentation of FAO and ZJU showed how the development of rural e-commerce improves the efficiency and productivity of agricultural production, accelerates the transformation of agri-food systems and achieves the sustainable development goals with concrete examples of China's leading role in rural e-commerce. The development of rural e-commerce will effectively accelerate the pace of agricultural industrialization, facilitate the development of rural economy, and eventually raise awareness to e-agriculture to reduce the traditional agricultural transaction methods. Belief was shared that e-commerce to rural areas will increase farmers' resilience, facilitate their access to markets and diversify their incomes, all particularly critical in light of restrictions related to the COVID-19 pandemic.

The panellists were then invited to share their expertise to discuss technology and practices based on rural e-commerce to unleash the potentials of broad digital solutions from an international perspective. Experiences from successful examples especially in China, which represents the most developed e-commerce market in the world, were shared and considered as potential models to be replicated in other regions of the world.

- Please highlight key achievements and challenges shared by the audience and/or panelists

The multidimensional aspects of e-commerce were discussed. Parmesh Shah, from the World Bank Group, stressed the importance of the following points to make e-commerce a success: data and connectivity, the need for a solid innovation ecosystem and farmers organization. Hani Eskandar, from ITU, also insisted on the importance of the need to have a full digital ecosystem in place and announced the upcoming release of a study with FAO on digital agriculture in Africa, that includes 44 indicators (including infrastructure, business environment, agro innovation, etc)

from many sources to draw an overarching picture of an enabling environment for e-commerce. Olukemi Afun-Ogidan from the AfDB gave an overview of e-commerce in Africa, which is incipient in the continent (with only 2% of the economy driven by it, compared to 20% in China or the USA) but expected to grow, especially with the transformation driven by Covid, that triggered important changes in people 'behaviours, constituting a crucial opportunity for the e-commerce space especially in the African Continental Free Trade Area (AfCFTA), a unique market of 1 billion people over 55 countries. The Vice President of Alibaba, Luna Xing, highlighted the many challenges to be tackled when working with the farmers: helping them increase their incomes, familiarizing them with the digital tools, building specific channels to sell their products, building their brand, informing the customers accordingly etc. Infrastructure was presented as key to build sustainable e-commerce. Kieron Swift from the Inter-American development Bank also presented e-commerce as a huge opportunity space in the Latin America and Caribbean region, presenting briefly in this context the Landscaping the Agritech Ecosystem for Smallholder Farmers in Latin America and the Caribbean report, prepared by GSMA and IDB Lab, based on the review of 131 digital agriculture tools, and that provides a market mapping and landscape analysis of the most prominent cases of digital disruption. He mentioned as well the Regional Agri Tech Challenge, organized by Compete Caribbean aimed at providing the Caribbean firms technical assistance in the agri-food innovation sector. Mark Matovu, from Nampya farmer, finally presented the project that granted him the prize of the Agrilno Challenge: a mobile-based platform connecting smallholder farmers with retailers, allowing daily deliveries of fresh food directly from farms and positioning itself as unique solution to address the

inherent inefficiencies in the delivery of fresh products with better quality standards in East Africa with a significant positive impact for both producers and consumers.

### **I. Quotes**

- Please provide two important quotes from the session and the names & organisation of the person you are quoting

‘Food and agriculture make up the world's largest economic sector in terms of employment and livelihoods. There are alarming trends in the unsustainable management and use of resources. Transforming agriculture and food systems therefore is one of the most powerful ways of changing course if we wish to achieve the SDGs.’ Ismahane Elouafi, FAO Chief Scientist

‘We hope that FAO-ZJU Digital Agriculture Report will contribute to methodologies, approaches and solutions that will help to accelerate inclusive and sustainable development in rural communities through digital innovation and e-commerce, with the aim of transforming the agri-food system’ Prof Longbao Wei, Director, Institute of Food and Agribusiness Management, Zhejiang University.

### **II. Overall outcomes of the session highlighting**

- main conclusions reached during the discussion

Agricultural industry is suffering from decentralized production and management, weak competitiveness of products, high transaction cost and low degrees of standardization and this puts at risk the goal of achieving world zero hunger by 2030. New solutions are therefore needed urgently and among many digital technologies related to development, e-commerce now stands out as a real solution to deliver significant economic, social and environmental benefits that will help to accelerate inclusive and sustainable development in rural communities through digital innovation, with the aim of transforming the agri-food system. The potential of rural e-commerce to achieve economic and social improvement should be valued in creating an enabling environment that will set the path towards the achievement of the SDGs.

- the vision for implementation of WSIS Action lines beyond 2015

FAO and ZJU will pursue their collaboration in digital agriculture and plan to launch a series of yearly digital agriculture reports to continue strengthening knowledge and expertise sharing in the digital agriculture sector and contributing then to the design and implementation of policy and strategy frameworks that will establish enabling ecosystems worldwide. The foreseen outcomes are to build a compact and orderly business consortium, reduce rural business costs, and expand the field of rural business, so that farmers can make the best benefit of the platform use.

WSIS Beyond 2021 should focus on continuing establishing efficient mechanisms for coordination of multi-stakeholder implementation activities, information exchange, creation of knowledge, sharing of good practices and continue to provide assistance in developing multi-stakeholder and public/private partnerships to advance development goals. FAO's actions are aligned towards the same objectives.



## **5) Main linkages with the Sustainable Development Goals (please specify the SDGs)**

SDG 1: End poverty in all its forms everywhere

SDG 2: End hunger, achieve food security and improved nutrition and promote sustainable agriculture

SDG 8: Promote inclusive and sustainable economic growth, employment and decent work for all

SDG 13: Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning.

E-commerce is an important part of digital innovation. Digital innovation has the potential to transform the approach to all 17 SDGs. Specifically, the development of a strategic framework for digital innovation in the food and agriculture sector will provide a systematic process and

sustainable business model for creating, testing, funding, and scaling new digital solutions to achieving the SDGs, particularly SDGs 1, 2, 8, and 13. Through this process, youth entrepreneurship, capacity development, and multi-stakeholder partnerships will be encouraged to enable a permanent and systematic change towards integrating digital technologies and innovation into local communities and national action plans. These activities contribute to SDGs 1, 2, 8, and 13 as well as establishing business models to produce new ideas and products aimed at contributing and achieving all the SDGs.

Creating awareness and keeping the momentum to develop a rural e-commerce that is inclusive, and generates economic, social and environmental benefits for all, especially for small and family farmers, this session constituted a crucial step on the pathway towards ending poverty and hunger, fostering economic growth, employment and education, contributing to SDG 1, 2, 8 and 13 as mentioned above and ensuring, following FAO's overarching mandate, that 'no one is left behind'.

## **6) Emerging Trends related to WSIS Action Lines identified during the meeting**

Since WSIS launch 16 years ago, a remarkable growth in the use of digital technologies, transforming people's lives around the globe has been witnessed. To continue covering the

growing needs of a world where food insecurity is ramping, the crucial role of Innovation in finding sustainable solutions in the field of food and agriculture has been highlighted as it addresses in a global perspective these new challenges to achieve the SDGs to their best efficiency and in line with the WSIS Action Lines.

This session illustrates good practices that public-private partnerships should seek to maximize the use of ICTs and rural e-commerce as key instruments to improve production (in quantity and quality), in the framework of the 15 years implementation of WSIS, highlighting all these new challenges and opportunities.

**7) Suggestions for Thematic Aspects that might be included in the WSIS Forum 2022**

## WSIS Action Line Facilitators Meeting

**Workshop Name:** WSIS Action Line Facilitators Meeting

**Workshop Link:** <https://www.itu.int/net4/wsis/forum/2021/Agenda/Session/360>

**Organization:** WSIS

**Date:** Friday, 21 May 2021

### 1) Relevance with the WSIS Action Lines – please specify the Action Lines C1 to C11

The session was dedicated to addressing the initiatives, solutions, plans and other activities within the Action Lines and gathered together the WSIS Action Line Facilitators covering all WSIS Action Lines.

### 2) Did your workshop highlight any issues related to COVID-19? If yes, please explain.

All of the speakers highlighted the impact of the global pandemic on their work as WSIS Action Line Facilitators. For example, UN DESA has been working on their digital governments survey where the ALF discussed how digital ID systems and AI software helped the governments in their vaccine rollouts; UNESCO underlined the importance of protecting freedom of expression, rights of the journalists to report freely, as well as the importance of combatting misinformation particularly amplified during the pandemic; ITU described their efforts with WHO on enhancing and creating learning platforms, making them more accessible to a wider population and helping the health leaders to develop digital skills to reach marginalized groups during the global pandemic; the ITU has also launched its COVID interactive data dashboard and has launched a global network resiliency platform to help stakeholders share their best practices and solutions during pandemic; WHO emphasized their initiatives in the health sector, particularly focusing on the older people.

### 3) Key achievements, announcements, launches, agreements, and commitments

- SDGs and WSIS Action Lines matrix developed in 2015 has proved to be helpful for the stakeholders in implementing their projects in line with the SDGs
- Since 2018 UN DESA has focused on how municipality governments are delivering services; in 2020 they encompassed 100 cities, and by 2022 it is planned to cover 193 major cities in the UN member states
- E-government initiatives are recorded to have contributed to green energy by going digital
- There is a last-mile connectivity project at ITU which addresses the key challenges in creating meaningful connectivity
- UNESCO launched a #dontgoviral campaign to help artists and musicians to amplify life-saving information; the campaign reached 220 million people on African continent

- At the WSIS Forum 2021, a Hackathon on healthy aging was held with focus on four areas: Alzheimer's Disease and cognitive Decline, Frailty, Transportation and Mobility, Financial Tools for Longevity
- First ever Asian e-commerce week is to be held in Abu Dhabi on 17-21 October
- UNESCO's flagship youth mobile program engaged 3.85 million young people with 47% girls participation
- UNESCO collaborated with Google maps to facilitate visiting of world heritage sites virtually which were closed due to the pandemic
- ITU created guidelines for child online protection
- UNESCO is currently working on guidelines for prosecutors on investigating and prosecuting attacks against journalists
- UNESCO launched its global education coalition: e-learning, hybrid learning and different formats

#### **4) Main outcomes**

##### **I. Debated Issues**

- Importance of promotion of digital government technologies, resource issues with conducting the digital governments survey every year
- The role of digital space in the rollout of vaccines
- Digital infrastructure under C2 is covered mainly through technical issues but there is also a need for exploring financial and investment issues and barriers impacting the infrastructure and connectivity
- There is also a need for sound national strategies to narrow urban and rural divides for efficient competition, attracting investments, and digital skills
- Knowledge societies depend on 4 pillars: freedom of expression, universal access to information and knowledge, respect for cultural and linguistic diversity, and quality education for all
- Role of ICTs in healthcare and the faith in technology for good
- Cybersecurity and cyberthreats as a crucial learning point as well as a gap in capacity building
- There is a need for regulations in the sector of emerging technologies such as AI, IoT, etc.

## **II. Quotes**

- “WSIS to be synonymous with knowledge societies” - Joe Hironaka, Programme Specialist, Digital Innovation and Transformation, Communication and Information Sector, UNESCO
- “Digital inclusion has to be a priority for all countries” - Sofie Maddens, Head, Regulatory and Market Environment Division, Telecommunication Development Bureau, ITU

## **III. Overall outcomes**

- Multistakeholder approach is key
- COVID-19 pandemic has affected all aspects within 11 WSIS Action Lines
- There is still a wide digital divide and there is a need for measuring the gap in digital skills
- Healthcare and education sectors remain the fields highly impacted negatively by the COVID-19 pandemic
- There is a need for empowering women-owned and youth-led organizations
- ICTs play an important role in food and agriculture sector
- Freedom of expression is of crucial importance, particularly during the global pandemic

## **7) Main linkages with the Sustainable Development Goals (please specify the SDGs)**

The session highlighted the linkages between the WSIS Action Lines and the SDGs. Thus all the SDGs were covered during the meeting.

## **8) Emerging Trends related to WSIS Action Lines identified during the meeting**

- Education technologies
- Healthcare technology
- Technology for older people
- E-government solutions and their benefit during the global pandemic
- Ethics and emerging technologies
- Freedom of expression and right to report freely

- Gender mainstreaming in all aspects of social and economic life

**9) Suggestions for Thematic Aspects that might be included in the WSIS Forum 2022**

It is suggested that the activities, plans, and the challenges identified by the WSIS Action Line Facilitators are included in the thematic aspects of the WSIS Forum 2022 agenda.

## Thematic Workshops

Last Mile Connectivity in Asia-Pacific: planning tools to address the Gaps

**Workshop Name:** Last Mile Connectivity in Asia-Pacific: planning tools to address the Gaps

**Workshop Link:** <https://www.itu.int/net4/wsis/forum/2021/Agenda/Session/221>

**Organization:** ITU

**Date:** Monday, 22 February 2021





Promoting 'Educational Resilience' in the post Covid19 era using ICT:  
Experiences and lessons from Africa

**Workshop Name:** Promoting 'Educational Resilience' in the post Covid19 era using ICT: Experiences and lessons from Africa

**Workshop Link:** <https://www.itu.int/net4/wsis/forum/2021/Agenda/Session/109>

**Organization:** University of Nigeria, Nsukka; Fudan University, Shanghai China

**Date:** Tuesday, 23 February 2021



## DRR and SDGs Information Deficits

**Workshop Name:** DRR and SDGs Information Deficits

**Workshop Link:** <https://www.itu.int/net4/wsis/forum/2021/Agenda/Session/109>

**Organization:** CODATA-Germany

**Date:** Wednesday, 24 February 2021

### 1) Relevance with the WSIS Action Lines – please specify the Action Lines C1 to C11

Information management best practice methods support the principles of “critical thinking”, enabling extensive reporting, transparent analysis, compliance to regulations and other boundary conditions. Information control obligations include phases of retrace, audit, reexamination, analysis, avoidance of malpractice, and indications on weaknesses/vulnerabilities. Improving / Enabling just-in-time foresight, situation management and ex-post evaluation. Application of informatics state-of-the-art methods and technology that meet the demands of complex multi-actor and cross organizational information management is urgently required for organizationally as well as technically implementing treaties, frameworks and programs and for granting coherence in the required holistic way.

### 2) Did your workshop highlight any issues related to COVID-19? If yes, please explain.

No

### 3) Key achievements, announcements, launches, agreements, and commitments

n/a

### 4) Main outcomes highlighting the following:

#### I. Debated Issues

Prof. Liu Chuang presents the current development and future plans in establishing a global repository for information supporting „**A New Mechanism for Poverty Free Geo-Ecosystem Protection and Sustainable Development**“. Currently, there are more than 800 datasets published, including more than 400,000 data files that were accessed by more than 60,000 IP from

97 countries and by more than 5M visitors.

## II. Quotes

The sea is essential to feed humanity, hence the importance of preserving biological resources through sustainable exploitation.

However, seas and oceans are exposed to overexploitation of biological and mineral resources, the effects of climate change, environmental degradation and many other effects threatening sustainable development.

### I. Overall outcomes of the session highlighting

The work of Dr. Kassim Mwitondi is devoted to „**Filling Information Gaps in Big Data Modelling of Sustainable Development Goals**“. Each SDG can be viewed as a source of Big Data, but success in reaching the defined goals will depend on our levels of information availability, open sharing of data, interdisciplinary skills development, resources and mandatory implementation of FAIR principles (Free, Accessible, Interoperable, and Re-Usable)<sup>4</sup> in all information management tasks.

While it is possible to capture key metrics on indicators and their dynamics in time, triggers of their spatio-temporal variations remain buried in data. Identifying them, in an interdisciplinary context, is a major step towards attaining the 2030 Agenda.

Big Data methods and technologies offer challenges, give opportunities and they relate to influential policies for improving decision making at institutional, national, regional and global levels.

#### 5) Main linkages with the Sustainable Development Goals (please specify the SDGs)

N/A

#### 6) Emerging Trends related to WSIS Action Lines identified during the meeting

N/A

#### 7) Suggestions for Thematic Aspects that might be included in the WSIS Forum 2022

N/A

## How can ICT innovations address the access and quality gap for girl children in the Global South?

**Workshop Name:** How can ICT innovations address the access and quality gap for girl children in the Global South?

**Workshop Link:** <https://www.itu.int/net4/wsis/forum/2021/Agenda/Session/188>

**Organization:** The Collective Consciousness

**Date:** Thursday, 25 February 2021

### 1) Relevance with the WSIS Action Lines – please specify the Action Lines C1 to C11

C2, C4, C7(e-learning), C7(e-health), C7(e-employment), C8 and C10.

### 2) Did your workshop highlight any issues related to COVID-19? If yes, please explain.

The workshop highlighted the shift in work culture due to the Covid-19 pandemic which resulting in a decentralized workplace. This work from home culture has greatly benefitted female employees in India. The panelists also highlighted how companies began to realize they can mobilize better and diverse talent in the work place if they let go of traditional rules and methodologies and embraced innovations in their company.

### 3) Key achievements, announcements, launches, agreements, and commitments

Launch by The Collective Consciousness- Devi: A menstrual health and hygiene intervention using an ed-tech platform. The platform incorporates gamified modules and VAK learning elements to provide experiential learning for the students and thus improve retention and drive behavior change in the grassroots of India.

The Collective Consciousness is also developing BridgEd- An ed-tech innovation to help students access government and private scholarships and bridge the access gap for education in India.

### 4) Main outcomes highlighting the following:

#### I. Debated Issues

- Role models v. Behavioral nudges: Their role in improving girl child education
  - Having strong role models helps motivate many in the family and beyond to study further and improve their economic status. Technology has helped to motivate students to take up STEM(Science, Technology, Engineering and Mathematics) studies and this in turn, has helps bridge the “Techno fear” which currently exists.
  - Using social media to create positive role models in the community helps in motivating more girls to enroll or continue their education. Cultural nuances can be better tackled through social media

- However, role model projection shouldn't be merely paying a lip service to the whole idea of empowering women. It needs to be more organic and intrinsic.
- True transformation can be achieved nudges like changing gender roles in school textbooks and developing better curricula which are made accessible through ed-tech innovations.
- How to attract talent in the non-profit sector so they can work more efficiently on critical issues and use modern innovations.
  - According recognition to working in the non profit sector is very important to ensure talented individuals contribute their time and effort into the sector
  - However, the main problem plaguing the Indian Development sector, is the lack of financial sustainability of companies working in the sector. This results in poor salaries for their employees, further resulting in a talent outflow from the sector.
  - Awareness gap exists in the Indian society. There is a need to address this and create stories of change to motivate individuals to work in the sector.
  - The role of Government needs to be stressed here to nudge the citizens towards development sector roles and create a healthy ecosystem for the growth of civil society.
- Access and equity in the education sector.
  - There is a need to incorporate the right models in ICT to ensure maximum access and account for diversity. One example, is to incorporate asynchronous learning instead of live broadcast sessions. During live broadcast, girl children are usually neglected and tend to miss out on the lessons. By incorporating asynchronous learning, they can revisit the classes at their convenience and learn at their own pace.
  - The current digital penetration in India is 28-56%, due to a large regional divide. There is a need for bridging this regional disparity, and aiming to reach 75% regional connectivity in the next two years.
  - Technology can help re-define gender roles. Outdated curricula can be dynamically changed and positive behavior nudges can be included in the curricula.
  - It is very important to track the outcomes of these policy changes, and a data driven policy making is the need of the hour. The success of any intervention, ICT based or not, will depend on how the intent is translated on the ground.

## **II. Quotes**

- “India needs Gender desegregated data and use of technology will help achieve the same” - Danish Aziz(He is from Unicef India serving as the Education Specialist for Jammu & Kashmir, but was on the panel in his personal capacity)
- “If you empower one women, you not only empower her, but also her entire family”- Priya Ajmera, CEO, AIC/NCORE

### **III. Overall outcomes of the session highlighting**

- The session highlighted a multi-stakeholder perspective (including innovation, civil society, business and International Organizations) into Indian ICT based policy ecosystem and aimed to identify core problem areas resulting in poor access for the girl child in India.
- Highlighted specific regional nuances which are very important to ensure success of innovations in the Indian context.
- Along with the launch of Devi and BridgEd, two of the ed-tech based innovations by The Collective Consciousness to bridge the access gap in the Global South, the thematic workshop also highlighted Stu-dost and Rocket Learning, two innovative platforms to drive the vision of WSIS Action lines in the years to come.

#### **7) Main linkages with the Sustainable Development Goals (please specify the SDGs)**

SDG3, SDG4, SDG5, SDG8, SDG10, SDG16

#### **8) Emerging Trends related to WSIS Action Lines identified during the meeting**

E-learning has transformed the Indian education ecosystem. However, there is a need to push the “right” innovations to ensure access and equity. The need for complete transparency in data collection and reporting was also observed, to ensure the right policy decisions can be taken to increase the impact of ICTs.

The rise in the use of smartphones and tablets during the COVID-19 pandemic has helped increase the digital penetration in India. However, digital literacy is still low. There is a need to further push infrastructure development to achieve true digital transformation.

## Digital transformation in child protection in Africa

**Workshop Name:** Digital transformation in child protection in Africa

**Workshop Link:** <https://www.itu.int/net4/wsis/forum/2021/Agenda/Session/228>

**Organization:** C-Sema

**Date:** Tuesday, 2 March 2021

### 1) Relevance with the WSIS Action Lines

Child Protection; promotion of ICTs for dev., enabling environment and international and regional cooperation.

### 2) Did your workshop highlight any issues related to COVID-19? If yes, please explain.

NA

### 3) Key achievements, announcements, launches, agreements, and commitments: *participants were informed of the African Unions efforts to protection children online. There is commitment throughout the continent to safeguard children online with initiatives in case study countries such as Tanzania, Kenya, Zimbabwe, Zambia and Ghana.*

### 4) Main outcomes highlighting the following:

#### I. Debated Issues

- Please capture highlights of the main issues discussed and interactions with audience – *A need for African countries to work together on this area.*
- Please highlight key achievements and challenges shared by the audience and/or panellists – *countries in the African block work isolated while the issues related to online safety for children have no boundaries. Countries in Africa need to find a unified front to ensure children are safe throughout Africa.*

#### II. Quotes

- Please provide two important quotes from the session and the names & organisation of the person you are quoting:  
*1<sup>st</sup> quote, 'Children are the digital citizens who are vulnerable to online risks caused by digital immigrants, the adults.'* Dr. Hezron Zacharia Onditi (PhD), Dept. Of Psychology, University of Dar es salaam.



*Second quote, 'Child online protection is not for the authorities only, it's a shared responsibility.' Ms. Thelma Dhaje, Child Helpline Manager, C-Sema*

### **III. Overall outcomes of the session highlighting**

- main conclusions reached during the discussion: -
    - *Digital literacy to build a generation of competent digital citizens*
    - *Digital parenting*
    - *Legislations and law enforcement to protect children online*
    - *More research is required to trace trends and changes in young people's lives*
    - *Holistic/multidisciplinary response involving national, regional, and international efforts that keep up with changes in the digital landscape*
  - the vision for implementation of WSIS Action lines beyond 2015
    - *A safer online space for children in the continent and world.*
- 5) Main linkages with the Sustainable Development Goals (please specify the SDGs)**
- *SDG 3, SDG 4 and SDG 5*
- 6) Emerging Trends related to WSIS Action Lines identified during the meeting**
- *Cyber security and cyber bullying*
- 7) Suggestions for Thematic Aspects that might be included in the WSIS Forum 2022**
- *We must have 'Children and young person's online safety' in 2022*

## New challenges for digital transformation in developing economies

**Workshop Name:** New challenges for digital transformation in developing economies

**Workshop Link:** <https://www.itu.int/net4/wsis/forum/2021/Agenda/Session/191>

**Organization:** South School on Internet Governance and Centro de Capacitación en Alta Tecnología para América Latina y el Caribe

**Date:** Tuesday, 2 March 2021

### 1) Relevance with the WSIS Action Lines – please specify the Action Lines C1 to C11

The session directly links to WSIS Action Lines C2, C3, C4, C6, those C7 related with E-business, E-Environment and E-Learning and C10 Ethical dimensions of the Information Society

C2. Information and communication infrastructure :

The workshop allowed for the exchange of ideas about how to enhance ICT infrastructure to connect the unconnected and help development.

C3. Access to information and knowledge

The COVID pandemic showed the infrastructure deficiencies in several regions of different countries, exposing lack of access to online classes to many students.

C4. Capacity building

The use of online training will not stop after the COVID Pandemic, many new ideas and ways of learning will appear, based on a hybrid mixing on site and online training.

C6. Enabling environment

The workshop analyzed which kind of regulations should be made to achieve the changes to enhance ICT infrastructure, connect the unconnected and take care of the environment

C7: ICT applications: benefits in all aspects of life:

E-business: a stronger ICT infrastructure can help the development economies and the capabilities of those working from home

E-learning: closing the gap between those not connected or poorly connected will enhance the e-learning capabilities of a big part of population of developing countries.

E-environment: It is important to address the relationship of connectivity for all in developing economies and the global warming due to the use of extended ICT infrastructure.

C10: Ethical Dimensions of the Information Society: COVID pandemic showed other challenges: a higher workload specially for women at home, higher domestic violence, and difficulties for inclusion of those not connected.

**2) Did your workshop highlight any issues related to COVID-19? If yes, please explain.**

The COVID pandemic exposed all countries to several challenges: telework, working from home, home classes for students at all levels, different industries and businesses that made quick changes to adapt their activities and infrastructures to this new normal reality.

Some good outcomes have emerged, like the rapid reaction by several business, governments and organizations that could overcome the challenge, and some could even benefit from them.

At the same time there are many industries that suffered from this new reality, like tourism and air transportation, restaurants, among others. Other industries have adapted but at the same time its workers were exposed to other difficulties, like the lack of cybersecurity infrastructure at home offices, poor bandwidth or not updated computers for online teaching or learning.

Additionally, new social challenges appeared: higher workload for women at home, higher domestic violence related to lockdown and overcrowded homes.

In developing countries and economies, the gap between the connected and unconnected experienced a new exposure. In many locations the existing infrastructure is not ready yet to connect all the unconnected. Also, the experience showed that those poorly connected had many difficulties in getting all the necessary information and communication tools for a reasonable working or learning activities, making the existing gap more evident and bigger.

**3) Key achievements, announcements, launches, agreements, and commitments**

It was announced during the workshop that the next 13<sup>th</sup> consecutive edition of the South School on Internet Governance will be organized from 4 to 8 of October 2021 being the Ministry of ICT of Colombia MINTIC the host of this 2021 edition. All information about fellowships and program will be shared in the SSIG social networks and website [www.gobernanzainterneta.org](http://www.gobernanzainterneta.org)

**4) Main outcomes highlighting the following:**

**I. Debated Issues**

- Please capture highlights of the main issues discussed and interactions with audience

It is necessary to review the inherited ICT regulation and be clear that only by working together, the public sector and the private sector will succeed in the process of universalization of access and post-pandemic digital recovery.

There is a need for consistency in fiscal policy. Digital agendas should be transversal trying to build dialogue where Ministries such as education, health, agriculture, or finance contribute to digitization and have an open interaction with other stakeholders,

One of the main challenges, from the perspective of public policies, is to achieve coherence between the different agendas of the government areas, in order to establish digital policies consistent with connectivity objectives

There are initiatives that encourage the use of emerging technologies through the changes of processes, ensuring the generation of value in the public sphere.

Training of human talent in science and technology, as a determining factor to reduce the digital talent gap is a key element in the economic and productive development.

Digital innovation and the promotion of ICT will only be effective if it has a purpose. It must address gender disparities, understand environmental and regional challenges, as well as think about the appropriation of inclusive technologies.

No country is immune to the challenges of the pandemic and the digital transformation that is sweeping the world. However, developing countries and especially people living in remote rural areas face specific challenges and are disadvantaged due to lack of connection. In many locations, for instance, the existing infrastructure is not ready yet to connect all the unconnected.

There is a need in many developing countries to update the existing regulations related to the digital economy.

Reinforcement of the multistakeholder model to create an open dialogue among different actors will be relevant to help developing economies to achieve digital transformation.

Sustainability and care of the environment must be contemplated with a holistic vision once developing connectivity infrastructure.

Affordability becomes one important barrier for Internet access, in this sense the establishment of Internet Exchange Points and community networks may help to solve this problem.

- Please highlight key achievements and challenges shared by the audience and/or panellists

It was highlighted the value of innovation in the use of technology to create new jobs and business opportunities.

There are some industries that have quickly adapted to the new normal reality with homework and virtual activities.

Environment must always be considered; sustainability should be taken in consideration from the start of any new initiative.

There are new activities related with capacity building in STEM and programming in developing economies.

One big challenge is the affordability of services and devices.

## II. Quotes

- Please provide two important quotes from the session and the names & organisation of the person you are quoting

Quote by Vinton Cerf, Vice President and Chief Evangelist, Google:

Now that we have discovered how important the Internet is, once this pandemic will be over, we will never go back to the way we were. We must however deal with the abuses that have emerged.

Quote by Vice Minister of ICTs of Colombia Mr Germán Rueda:

“We also bet on the training of human talent in science and technology, as a determining factor to reduce the digital talent gap and contribute so that Colombia advances in social, economic and productive development”

Quote by Deputy Secretary General of the ITU Mr Malcom Johnson:

“No country is immune to the challenges of the pandemic and the digital transformation that is sweeping the world. However, developing countries and especially people living in remote rural areas face specific challenges and are disadvantaged due to lack of connection.”.

## III. Overall outcomes of the session highlighting

- main conclusions reached during the discussion
- the vision for implementation of WSIS Action lines beyond 2015

## 5) Main linkages with the Sustainable Development Goals (please specify the SDGs)

Goal 1: End poverty in all its forms everywhere

Goal 4: Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all

Goal 5: Achieve gender equality and empower all women and girls

Goal 8: Promote inclusive and sustainable economic growth, employment, and decent work for all

Goal 10: Reduce inequality within and among countries

## 6) Emerging Trends related to WSIS Action Lines identified during the meeting

C2. Information and communication infrastructure

There is an urgent need to enhance ICT infrastructure to connect the unconnected and help development

### C3. Access to information and knowledge

There is lack of access to online classes to many students. The workshop included ideas on how to overcome this problem.

### C4. Capacity building

It is expected that after the COVID Pandemic new ways of learning will appear, based on a hybrid mixing on site and online training.

The workshop analyzed aspects of capacity building related with closing the gender balance and the need for STEM education in developing economies.

### C6. Enabling environment

The workshop analyzed which kind of regulations should be made to achieve the changes to enhance ICT infrastructure, connect the unconnected and take care of the environment

Ideas were shared by experts in how to make e-business and e-learning and at the same time having in consideration the environment.

It was mentioned that is important to address the relationship of connectivity for all in developing economies and the global warming due to the use of extended ICT infrastructure.

### C10: Ethical Dimensions of the Information Society

The gender gap and the new challenges for women working at home was reviewed during the workshop. COVID pandemic showed other challenges: a higher workload specially for women at home, higher domestic violence, and difficulties for inclusion of those not connected.

## **7) Suggestions for Thematic Aspects that might be included in the WSIS Forum 2022**

Evaluation of the postpandemic effect in the use of Internet and ICT technology in general.

Revision of the new emerging challenges related with the use of the Internet: cybersecurity, fake news, content regulations, among others.

Revision of the evolution of the connectivity in areas which were not connected before the pandemic, so society can see the evolution and its effects.

*Dr. Olga Cavalli*

*Director South School on Internet Governance*

*March 4, 2021.*

## Data Management and Ethical Handling of Data

**Workshop Name:** Data Management and Ethical Handling of Data

**Workshop Link:** <https://www.itu.int/net4/wsis/forum/2021/Agenda/Session/107>

**Organization:** Data Association Management Italy, FIT Academy and Karis Foundation

**Date:** Friday, 5 March 2021

Multistakeholderism: success stories. How technology, its protagonists and knowledge can put together change into action with SDGs

**Workshop Name:** Multistakeholderism: success stories. How technology, its protagonists and knowledge can put together change into action with SDGs

**Workshop Link:** <https://www.itu.int/net4/wsis/forum/2021/Agenda/Session/234>

**Organization:** Phileas Flow

**Date:** Friday, 5 March 2021

**1) Relevance with the WSIS Action Lines – please specify the Action Lines C1 to C11**

C4- Capacity Building.

C7. ICT applications: benefits in all aspects of life, E-learning.

C8. Cultural Diversity and Local Content.

C11 International and Regional Cooperation.

**2) Did your workshop highlight any issues related to COVID-19? If yes, please explain.**

Not specifically.

**3) Key achievements, announcements, launches, agreements, and commitments**

Phileas Flow announces the launch of its "Challenges" chapters to connect innovative solutions related to the achievement of the objectives set by the 2030 Agenda.

**4) Main outcomes highlighting the following:**

**I. Debated Issues**

- Please capture highlights of the main issues discussed and interactions with audience:

**Highlights from the audience:**

"We need to create an education system with an environment that enables reflection"

"Knowledge is freedom"

"Understanding enables communities to make informed decisions"

"Too much noise and lack of attention generation"

- Please highlight key achievements and challenges shared by the audience and/or panellists

**Key achievements and challenges from the panelist:**

Work with the city of Paris on a single-use plastic withdrawal. This is an objective they have 2025 as deadline. This project involves multistakeholders



as city council, NGOs, Circulab, people. **Justine Laurent, CoFounder of Circulab.**

260,000 computers now in over 100 companies countries and we've enabled something like 1 billion hours of learning. **Keith Sonnet, Founder of Computer Aid International.**

"Citizen science is engaging non professional scientists in producing new knowledge or understanding, although this concept is kind of a new term engaging or involving volunteers and non professional scientists in environments and monitoring" **María Alonso, Mapping for Change, London University.**

"We are creating a generation with lack of attention, we are just dope I mean junkies all the day with mobile phones and i'm from the mobile industry, I run a nap company so i'm here to say sorry". **Daniel Suarez, Founder of Zapiens.ai.**

## **II. Quotes**

- Please provide two important quotes from the session and the names & organisation of the person you are quoting

### **ICT and its Benefits**

"A surveys that we undertake, 84% of students have said that having access to computers at schools has improved their learning 75% of students who have never had access to a computer until we're working with them". **Keith Sonnet, Founder of Computer Aid International.**

"This is not about engagement, this is not about how we are able to generate to your brain at the next step, I mean shoot, this is about how we introduce curiosity, because if we want to think about learning and education and long learning for the future, this is about how we, the humans are able again to think by ourselves, not to consume content so" **Daniel Suarez, Founder of Zapiens.ai.**

## **III. Overall outcomes of the session highlighting**

- main conclusions reached during the discussion
- the vision for implementation of WSIS Action lines beyond 2015

Fostering cooperation among and between the different stakeholder in the process and in the result is the authentic Multistakeholderism.

## **7) Main linkages with the Sustainable Development Goals (please specify the SDGs)**

SDG 1 No Poverty

SDG 4 Quality Education 10 Reduced Inequalities

SDG 11 Sustainable Cities and Communities

SDG 13 Climate Action SDG  
SDG 17 Partnership for the Goals

**8) Emerging Trends related to WSIS Action Lines identified during the meeting**

Citizen science, mapping, social blockchain, remote care solutions, remote workforce.

**9) Suggestions for Thematic Aspects that might be included in the WSIS Forum 2022**

Transhumanism: enhancement of the human condition by developing and making widely available sophisticated technologies able to greatly enhance longevity, mood and cognitive abilities.

Telehealth and remote workforce: from the mass adoption of technology has moved front and center as every industry grapples with the effects and fallout of the Covid-19 pandemic.

## Equitable Access to Online Education: Innovative Solutions from the Ground

**Workshop Name:** Equitable Access to Online Education: Innovative Solutions from the Ground

**Workshop Link:** <https://www.itu.int/net4/wsis/forum/2021/Agenda/Session/231>

**Organization:** Geneva-Tsinghua Initiative (GTI)

**Date:** Monday, 29 March 2021

### 1) Relevance with the WSIS Action Lines – please specify the Action Lines C1 to C11

Through this e-learning (C7) workshop, we are facilitating discussions about opportunities and challenges to provide and improve ICT connectivity for schools and universities (C2), and to facilitate accessibility of ICTs for all, including children in disadvantaged background and less favorable regions (C3). The panelists are also expected to present their collaboration with local communities (C1) and share hands-on approaches that foster social innovation and contribute to an equal quality education distribution (C4).

### 2) Did your workshop highlight any issues related to COVID-19? If yes, please explain.

Yes. According to UNESCO, 1.5 billion children and youth learners' onsite education is impacted by the COVID-19 pandemic (ITU News, 2020), and they may rely on e-learning to continue the education. However, there appears to be a huge digital divide among online learners that some of them are deprived of electronic devices/facilities (e.g. computers) to access online classes. Inadequate and inequitable digital access has become the bottleneck in achieving the goal of digital inclusion of e-learning and will exacerbate educational inequality. To address this issue, various actors are working on it, while local community is one of the most innovative and active actors in enabling universal, sustainable, and affordable access to online education.

### 3) Key achievements, announcements, launches, agreements, and commitments

These four projects showcased in the workshop demonstrate their efforts and experiences in the following aspects:

- Increasing the usability life of computers;
- Offering a practical CSR option that businesses can easily adopt;
- Helping to create a circular economy and reduce waste by recycling;
- Empower underprivileged students to get access to technology and online education;
- Narrowing down the digital divide.

#### 4) Main outcomes highlighting the following:

##### I. Debated Issues

- Please capture highlights of the main issues discussed and interactions with audience  
The audiences are eager to know how to increase the scalability of the projects and what are the main obstacles constraining their scalability and replication in different places.
- Please highlight key achievements and challenges shared by the audience and/or panelists.
  - Four non-profit organizations around the world—Computer Aid, Guangyuan Project, IT for children, and Pad for Hope have shared their experiences on empowering underprivileged children to get access to e-learning, whereas challenges are also addressed as follows:
  - Technology and data security is one of the challenges facing by those organizations who receive computers from companies. Wiping hard drivers of all data to protect the data security of donating-companies and uploading software requires lots of input.
  - Generally speaking, it may increase financial burden for these NGOs to refurbish computers, pay the licenses, wipe the hard drives to the international standards, load an operating system, and pay import duties.
  - Panelists highlight the need for collaboration and cooperation with governments or companies at every stage.

##### II. Quotes

- Please provide two important quotes from the session and the names & organisation of the person you are quoting
  - Keith Sonnet, Computer Aid  
*“The importance of digital technology and the overwhelming importance of providing access to it is which COVID highlighted.”*
  - Wan Zuo, Guangyuan Project  
*“The way Guangyuan Project bridging education gap is to transform our model to corporations or organizations who are interesting the education issue to reach out a convergence of social responsibility. “*
  - Samuel Gyasi, IT for Children  
*“The idea is that the desire (of children for IT technology) is there, but there are obstacles preventing them from coming into it. When we introduced this (After-School Program) about two years ago, we have stabilized us to the numbers for the After-School Programs.”*
  - Jacky Chu, Pad for Hope  
*“(The pads and digital whiteboards) will give them opportunities to reach outsiders, for these students who have never left that region.”*

##### III. Overall outcomes of the session highlighting

- main conclusions reached during the discussion  
COVID 19 Pandemic has worsened the education for students and largen the digital divide in terms of online education. While providing equitable access to underprivileged children is vital to tackle with these issues. Different organizations

have given various responses: recycling waste computers and circulating them to children who need them, raising companies' awareness and responsibility to donate devices, continuing After-School Program with strategies, and providing internet knowledge and enriching online courses. When technology is leveraged, we can look to make vast changes in the quality education of children.

- the vision for implementation of WSIS Action lines beyond 2015
  - a. C1. The role of public governance authorities and all stakeholders in the promotion of ICTs for development
  - b. C2. Information and communication infrastructure
  - c. C3. Access to information and knowledge
  - d. C4. Capacity building
  - e. C6. Enabling environment
  - f. C7. ICT Applications: e-environment, and e-learning

**5) Main linkages with the Sustainable Development Goals (please specify the SDGs)**

This session focuses on initiatives against inequitable digital access to online education within and among countries (SDG 9&10) through multi-stakeholder partnerships and voluntary commitments (SDG 17), to ensure inclusive and equitable quality education (SDG 4) and promote just, peaceful, and inclusive societies (SDG 16).

**6) Emerging Trends related to WSIS Action Lines identified during the meeting**

The increasing projects and attention of providing digital accessibility for underprivileged students in terms of online education is the result of a growing demand around understanding the changing roles and the needs of e-learning in our societies, especially during the COVID-19 period, as well as an increasing awareness of bridging digital divide. These touch upon multiple WSIS Action Lines as described earlier.

**7) Suggestions for Thematic Aspects that might be included in the WSIS Forum 2022**

How to make sure these devices are properly used for e-learning in terms of providing online courses with quality, long-term maintenance, avoidance of internet addiction.

## Simple Ways to be Smart

**Workshop Name:** Simple Ways to be Smart

**Workshop Link:** <https://www.itu.int/net4/wsis/forum/2021/Agenda/Session/249>

**Organization:** United for Smart Sustainable Cities and the United Nations Operating Unit on Policy Driven Electronic Governance

**Date:** Monday, 29 March 2021

### **1) Relevance with the WSIS Action Lines – please specify the Action Lines C1 to C11**

The report that was launched focuses on expanding the conversation about Smart Cities to make the point that all cities can become smarter, and it does not require big budgets or complex projects. Ten case studies are presented that illustrate simple smart interventions that improve municipal administration, benefit the environment, change the role of people in the city, improve the experience of the city and increase city resilience. The importance of e-government as well as insights into innovating in e-government are themes in the report and were reflected in the workshop. Two of the panellists had implemented cases and were able to discuss the benefits and challenges of making such changes in city government, while two of the panellists were experts in innovation and could speak to the challenges of government innovation in different contexts.

### **2) Did your workshop highlight any issues related to COVID-19? If yes, please explain.**

One of the cases presented discussed the successful transition to online municipal services in the city of Ronda, Spain. This having been completed before the pandemic, the city was able to transition seamlessly to online service provision and working from home when it became necessary. The case illustrated how using a cloud-based service made this possible without the need for ICT infrastructure or high-level skills and provoked some discussion with participants about the challenges of training and changing the way that municipal staff worked.

### **3) Key achievements, announcements, launches, agreements, and commitments**

The workshop launched the publication of the U4SSC report Simple Ways to be Smart and discussed the challenges of implementing smart city changes in cities. The report is available at: <https://www.itu.int/en/publications/Documents/tsb/2021-U4SSC-Simple-ways-to-be-smart/index.html>

### **4) Main outcomes highlighting the following:**

#### **I. Debated Issues**

- Panellist Jorge Diaz Garcia-Herrera from Ronda in Spain shared the experience of the city in implementing online documents and services using a cloud-based system that improved efficiency and the experience of citizens in interacting with the city.

- Flavio Yuaca from Goiania in Brazil shared insights into how the city used Google Transit to provide real-time public transport information, getting the power of a sophisticated geo-spatial system at minimal cost to the city.
- Discussions with the floor centered on the challenge of developing skills for smart cities and of effecting change in public organisations.
- Issues highlighted included how few smart city projects are underway that are not just proof of concept.

While cities innovate with technology, few smart city projects really gain traction and get scaled up.

- Annalee Babb described the context of Barbados where cities are managed centrally due to the small size of the island. Concerns there are the provision of public wi-fi, smart transportation and how to counter flight from congested city centres through innovation and creativity.
- Geci Karuri-Sebina gave a contrasting picture from South Africa where large cities have tackled smart city projects but smaller cities are not making effective use of technologies.
- The discussion centred on how smart agendas are created by vendors with products to sell, but also by international organisations who take an interest in a region and how regions and cities can use build their own capacity to innovate and play more of a role in determining their futures.

## II. Quotes

- “Some of these (smart city) initiatives are not going well. We realize that maybe we have underestimated operational costs. Maybe we have chosen the best solution that is resource intensive, rather than a good solution that is compatible with our limitations.” Flavio Yuaca, Superintendent at Goiania City Government in Brazil
- “Ours are not cities in the accepted sense, but no-one wants them to be. They dictate their own proportions, their own definitions and particular places and in a prose equal to that of their detractors”. Annalee C Babb, Prime Minister’s Special Envoy and Special Advisor to the Minister of Innovation, Science and Smart Technology in Barbados, quoting Nobel Laureate Derek Walcott
- “One, it’s got to be purpose-driven. It’s got to be driven by your understanding of your development priorities. Two, you’ve got to be smart rather than buy smart. In fact, I would argue, you can’t buy smart. Think about what is sensible and whether it needs to be new. And the third thing, which I think is very important, is developing some kind of sandboxing capability. You need to create an experimental room to do interesting things, but in ways that don’t distract the whole system.” Geci Karuri-Sebina, National Organiser for the African Civic Tech Innovation Network in Johannesburg, South Africa.

### **III. Overall outcomes of the session**

Smart technologies do indeed offer great potential to improve the governance of cities, however cities need to be smart about applying appropriate technologies and solutions suited to their own environments.

Cities need to develop local innovation capacity, including “sandbox” environments where innovation in e- governance can be explored. Local and national governments need to be aware of agendas that work against their own priorities and, while still working collaboratively at that level, to ensure that they dictate their own smart city agendas.

#### **5) Main linkages with the Sustainable Development Goals (please specify the SDGs)**

Improving the management and planning of cities through the application of smart technologies contributes to SDG11 targets 11.1 (basic services), 11.2 (transport), 11.3 (planning), 11.6 (environmental impacts), and 11.7 (green spaces). The discussions in this workshop highlight the challenges of achieving the SDGs in cities that face constraints in terms of resources, skills and having too many challenges to address at once. Key to cities becoming more effective is the need to develop local solutions and innovative capacity, not dictated by external agendas.

#### **6) Emerging Trends related to WSIS Action Lines identified during the meeting**

- For WSIS Action Line C7 e-government, there is still much work to be done around the implementation of ICTs in government, particularly around skills development and change management. While not an emerging trend, it is possibly the most important ongoing area of focus.
- Most important is an emerging trend around finding appropriate solutions, rather than “best practices” and
- how these need to be carefully selected or developed for the context in which they are implemented.
- Finally, at the level of city and even national agendas there is a growing recognition of the need for local voices to be heard and for cities and countries to assert themselves and seek locally relevant solutions, in the face of pressure from global vendors and from international organisations.

#### **7) Suggestions for themes for WSIS Forum 2022**

Exploring the ways in which national and regional agendas intersect with international agendas for e- government and smart cities and how this intersection can be more supportive and constructive.



## Digital voluntary commitment agreement

**Workshop Name:** Digital voluntary commitment agreement

**Workshop Link:** <https://www.itu.int/net4/wsis/forum/2021/Agenda/Session/309>

**Organization:** European Champions Alliance with Institut G9+

**Date:** Tuesday, 30 March 2021

## E-commerce and sustainable development in China

**Workshop Name:** E-commerce and sustainable development in China

**Workshop Link:** <https://www.itu.int/net4/wsis/forum/2021/Agenda/Session/284>

**Organization:** GTI

**Date:** Wednesday, 31 March 2021

**1) Relevance with the WSIS Action Lines – please specify the Action Lines C1 to C11**

C5. Building confidence and security in use of ICTs

C7. ICT applications: benefits in all aspects of life — E-business

C11. International and regional cooperation

**2) Did your workshop highlight any issues related to COVID-19? If yes, please explain.**

Yes.

COVID-19 has effectively promoted the development of e-commerce. COVID-19 has improved the management of e-commerce platforms in China. The epidemic has caused problems in supply and logistics, which has objectively raised the threshold for enterprises to operate in e-commerce and promoted their ability to cope with uncertain crises. Besides, the epidemic has led to a shift of some offline trade to online. Many enterprises have explored online trade forms such as live broadcasting, which has promoted the development of e-commerce, not limited to e-commerce platforms such as Taobao.

Ms. Shiduo Feng pointed out that COVID-19 gave opportunities for e-commerce, but it also made the problem of cyber security more serious.

Mr. Andre Zhu mentioned that Pinduoduo provided traffic support and merchant services to help farmers better plan their production sales during COVID-19.

Ms. Hanna Norberg pointed out that COVID-19 has accelerated the digitization of trade documents, but also made the gap of information more visible.

**3) Key achievements, announcements, launches, agreements, and commitments**

N/A

**4) Main outcomes highlighting the following:**

**I. Debated Issues**

- Please capture highlights of the main issues discussed and interactions with audience
- Please highlight key achievements and challenges shared by the audience and/or panellists

➤ **E-commerce policy**

The prosperity and development of e-commerce requires effective governance. It's essential that the central and local governments formulate appropriate policies to develop and regulate the e-commerce.

-**Ms. Rashmi Banga and Mr. Zheng Liang** gave speech about digital transportation and e-commerce policies in China.

➤ **E-commerce and sustainable development**

E-commerce promotes sustainable development in the fields of economic growth, poverty reduction and equality, etc.

-**Mr. Andre Zhu** gave the presentation about pinduoduo's contribution to sustainable development in rural communities.

-**Mr. Marcelo Olarreaga** shared his research on e-commerce and inequality.

➤ **E-commerce and cybersecurity**

There are some problems in the development of e-commerce. One of the most serious problems of e-commerce is cybersecurity, including transaction security and customers' information security, etc.

-**Ms. Shiduo Feng** gave speech about cybersecurity policies in China.

## II. Quotes

- Please provide two important quotes from the session and the names & organisation of the person you are quoting

**Ms. Rashmi Banga, Senior Economic Affairs Officer, Unit on Economic Cooperation & Integration Among Developing Countries, GDS, UNCTAD**

"China implemented a very comprehensive national level digital policy which aimed at improving both demand, as well as supply side of the digital economy."

**Mr. Marcelo Olarreaga, Professor of Economics, Dean of the Geneva School of Economics and Management, University of Geneva**

"E-commerce allows smaller firms, less productive firms that tend to hire more unskilled workers to enter global markets and be able to reach all these global consumers around the world. And we have also shown that this has led to reductions in income inequality."

## III. Overall outcomes of the session highlighting

- main conclusions reached during the discussion
- the vision for implementation of WSIS Action lines beyond 2015
  - COVID-19 gave opportunities for e-commerce, but it also made the problem of cyber security more serious.
  - E-commerce companies, such as Pinduoduo Company, contribute to sustainable development in China.
  - Not only the E commerce policies, but also digital transformation policies, finance policies, including trade and industrial policies promote e-commerce development in China.
  - E-commerce platforms could accurately connect suppliers and consumers. With the help of AI-based technologies, e-commerce has become more human-oriented. And the industrial Internet will open a new window for the e-commerce.
  - While decreasing "between country income inequality", international trade is increasing "within country inequality". E-commerce, however, can solve the problems of trade cost and trade barriers that international trade faces, thus reducing income inequality.
  - E-commerce platforms not only kill distance, but also offer services that traditionally only could be handled with big multinational firms. The problem of information gap that the e-commerce is facing will be eased by

the blockchain, which can enable transaction between two actors that didn't know or trust each other without the use of a middleman.

**5) Main linkages with the Sustainable Development Goals (please specify the SDGs)**

**SDG 1: No poverty**

Poverty reduction is the greatest challenge in developing countries. In china, most poor people are in rural area. Pinduoduo, one of the biggest e-commerce companies in China, alleviates poverty by connecting farmers with consumers and promoting education in rural communities.

**SDG 8: Decent work and economic growth**

The economic growth becomes slower with widening inequalities and the lack of jobs. It is important for countries to transform to digital economy to promote development.

In 2016, the digital economy also contributed around 60% of china's GDP growth, and now it has become a major driver of economic growth in China. China implemented a very comprehensive national level digital policy which aimed at improving both demand and supply side of the digital economy. Besides, e-commerce companies provide farmers with opportunities to participate in digital economy.

**SDG 9: Industry, innovation and infrastructure**

E-commerce promotes industries and enables small firms to get involved. Besides, e-commerce, as a creation of innovation, strongly encourages future innovation. One of the innovation goals of the e-commerce is to enable e-commerce to be conducted among not only consumers, but also enterprises. That is called "industrial internet". And it'll open a new window for the e-commerce and also encourage the development of the technologies, new infrastructure like 5G, IoT etc.

**SDG 10: Reduced inequalities**

By enabling smaller and less productive firms to enter the global market, e-commerce reduces trade cost, trade barriers as well as income inequality within country, which is significantly increased by international trade. So although e-commerce is not as large as international trade today, it has been contributed modestly towards reduction in income inequalities within countries.

**SDG 16: Peace, justice and strong institutions**

Without security and effective governance, we cannot hope for sustainable development. Cybersecurity is one the most serious problems in the world, especially during the COVID-19. China has made efforts to support the development of e-commerce by enacting new laws and guides, improving data security and supporting technological innovation trough pilot and demonstration programs.

**6) Emerging Trends related to WSIS Action Lines identified during the meeting**

N/A

**7) Suggestions for Thematic Aspects that might be included in the WSIS Forum 2022**

N/A

## Promoting Universal Acceptance as a Prerequisite for Progress in Ensuring Multilingualism and Local Content Generation in Eurasia and Asia Pacific

**Workshop Name:** Promoting Universal Acceptance as a Prerequisite for Progress in Ensuring Multilingualism and Local Content Generation in Eurasia and Asia Pacific

**Workshop Link:** <https://www.itu.int/net4/wsis/forum/2021/Agenda/Session/283>

**Organization:** Coordination Center for TLD .RU/. PΦ

**Date:** Tuesday, 13 April 2021

## Digital Resilience for COVID-19 Mitigation, Response and Recovery – Practical Lessons Learned

**Workshop Name:** Digital Resilience for COVID-19 Mitigation, Response and Recovery – Practical Lessons Learned

**Workshop Link:** <https://www.itu.int/net4/wsis/forum/2021/Agenda/Session/301>

**Organization:** eWorldwide Group

**Date:** Wednesday, 31 March 2021

## Introducing the MD4D Handbook

**Workshop Name:** Introducing the MD4D Handbook

**Workshop Link:** <https://www.itu.int/net4/wsis/forum/2021/Agenda/Session/305>

**Organization:** Digital Impact Alliance, Data-Pop Alliance and Cooper/Smith

**Date:** Thursday, 1 April 2021

## Inclusive Access to Quality Education for All – Resilient Education Systems

**Workshop Name:** Inclusive Access to Quality Education for All – Resilient Education Systems

**Workshop Link:** <https://www.itu.int/net4/wsis/forum/2021/Agenda/Session/303>

**Organization:** eWorldwide Group

**Date:** Thursday, 1 April 2021



## Humanitarian Encyclopaedia

**Workshop Name:** Humanitarian Encyclopedia

**Workshop Link:** <https://www.itu.int/net4/wsis/forum/2021/Agenda/Session/295>

**Organization:** Geneva Centre of Humanitarian Studies

**Date:** Tuesday, 6 April 2021

## International Day of Sport for Development and Peace: Girls in ICT and Sport

**Workshop Name:** International Day of Sport for Development and Peace: Girls in ICT and Sport

**Workshop Link:** <https://www.itu.int/net4/wsis/forum/2021/Agenda/Session/332>

**Organization:** WSIS/ITU

**Date:** Tuesday, 6 April 2021

## Best Practices for Teaching the Internet of Things

**Workshop Name:** Best Practices for Teaching the Internet of Things

**Workshop Link:** <https://www.itu.int/net4/wsis/forum/2021/Agenda/Session/296>

**Organization:** The Abdus Salam International Centre for Theoretical Physics

**Date:** Tuesday, 6 April 2021

### 1) Relevance with the WSIS Action Lines – please specify the Action Lines C1 to C11:

We discussed on how to best organize capacity building activities in the field of Internet of Things, so the Capacity Building of Action Line 4 is key. IoT networks strengthen the ICT infrastructure so WSIS Action Line 2 is essential. As the organizer (ICTP) is a category 1 UNESCO institution, we covered the impact of IoT training on International and Regional Cooperation which is presented in WSIS Action Line 11.

### 2) Did your workshop highlight any issues related to COVID-19? If yes, please explain.

As the capacity building activities cannot be organized in person due to COVID-19, we discussed on how to organize them efficiently online.

### 3) Key achievements, announcements, launches, agreements, and commitments

We all agreed that some form of hands-on activities is required to make the learning process effective. We have shared experiences on how to best do it in this pandemic situation. We agreed that we need to experiment more to find the best solution for the practical aspects.

### 4) Main outcomes highlighting the following:

#### I. Debated Issues

- Panelist presented their experiences in online activities organized in the last year. They highlighted the fact that different audiences have different needs in terms of topics to be covered and of training modalities.

#### II. Overall outcomes of the session highlighting

- The main conclusion is that we should get used to online capacity building activities and we should find new ways to manage the hands-on aspects as they are essential in IoT training.

### 5) Main linkages with the Sustainable Development Goals (please specify the SDGs)

There are reports that state that IoT can have a role to play on most SDGs (<https://www.ceps.eu/wp-content/uploads/2020/03/IoT4SDG-report.pdf>). Some SDGs are clearly linked:

**SDG 2: ZERO HUNGER:**

An estimated 821 million people were undernourished in 2017. Annual cereal production will need to rise to about 3 billion tonnes and annual meat production will need to rise by over 200 million tonnes to reach 470 million tonnes to feed 9.1 billion people by 2050. IoT can be used to optimize food production.

**SDG 3: GOOD HEALTH AND WELL-BEING:**

3 billion people worldwide lack access to basic sanitation. Noncommunicable diseases alone will cost low- and middle-income countries more than \$7 trillion in the next 15 years. IoT can be used to monitor patients remotely.

**SDG 11: SUSTAINABLE CITIES:**

Half of humanity – 3.5 billion people – lives in cities today and 5 billion people are projected to live in cities by 2030. The world's cities occupy just 3 per cent of the Earth's land, but account for 60-80 per cent of energy consumption and 75 per cent of carbon emissions. IoT can be used to monitor cities.

**SDG 13 & 15: CLIMATE ACTION and LIFE ON LAND:**

Given current concentrations and on-going emissions of greenhouse gases, it is likely that by the end of this century, the increase in global temperature will exceed 1.5°C. Global emissions of carbon dioxide (CO<sub>2</sub>) have increased by almost 50 percent since 1990. IoT can be used to monitor climate.

**6) Emerging Trends related to WSIS Action Lines identified during the meeting**

Without any doubt the Capacity Building of WSIS Action Line 4 is the most important one, given the progress in online activities.

**7) Suggestions for Thematic Aspects that might be included in the WSIS Forum 2022**

Scaling up online activities and reaching the unconnected would be an interesting topic.

## Accelerating Adaptable Aging Services to Promote the Comprehensive Development of Information Accessibility

**Workshop Name:** Accelerating Adaptable Aging Services to Promote the Comprehensive Development of Information Accessibility

**Workshop Link:** <https://www.itu.int/net4/wsis/forum/2021/Agenda/Session/300>

**Organization:** Internet Society of China

**Date:** Wednesday, 7 April 2021

### 1) Relevance with the WSIS Action Lines – please specify the Action Lines C1 to C11

C1: The role of Governments and all stakeholders in the promotions of ICTs for Development

C3: Action to Information Knowledge

C4: Capacity Building

C6. Enabling environment

C7: E- Health

C7: E- Agriculture

C10: Ethical dimensions of Information Society.

### 2) Did your workshop highlight any issues related to COVID-19? If yes, please explain.

No.

### 3) Key achievements, announcements, launches, agreements, and commitments

### 4) Main outcomes highlighting the following:

#### III. Debated Issues

- Please capture highlights of the main issues discussed and interactions with audience
- Please highlight key achievements and challenges shared by the audience and/or panellists

#### IV. Quotes

- Please provide two important quotes from the session and the names & organisation of the person you are quoting

Quote 1: In December 2020, MIIT issued the “Special Action Plan for the Aging and Accessibility of Internet Applications”, launching a one-year special action starting from January 2021, to conduct information accessibility update for nearly 160 public service websites and mobile apps that are closely related to the life and work of special

groups including the elderly and the disabled. (Shao Daoxin, Deputy Director General, Information and Communication Administration, Ministry of Industry and Information Technology of China (MIIT) )

Quote 2: Need for an inclusive community regardless of age or disability.

Accessibility is not an add-on feature - it should be integral to any IT design.

Moving from special solutions to inclusive solutions that can benefit everyone!  
(Gunela Astbrink, Vice-President, Accessibility SIG, Internet Society)

#### **V. Overall outcomes of the session highlighting**

- main conclusions reached during the discussion  
COVID-19 has highlighted the fundamental importance of ICTs to economies and societies everywhere. From teleworking and e-commerce to telemedicine and remote learning, digital technologies are supporting continued access to education, healthcare, and essential goods and services for people.  
Let's set our eyes on the post-COVID era. We should enhance international cooperation to further promote the indispensable role of ICTs in shaping the information society to better serve everyone at all ages, respond adequately to the ongoing pandemic, and continue to digitally transform the social, economic, and environmental development.
- the vision for implementation of WSIS Action lines beyond 2015

#### **5) Main linkages with the Sustainable Development Goals (please specify the SDGs)**

#### **6) Emerging Trends related to WSIS Action Lines identified during the meeting**

#### **7) Suggestions for Thematic Aspects that might be included in the WSIS Forum 2022**

## Communication and Aid in The Digital Age

**Workshop Name:** Communication and Aid in The Digital Age

**Workshop Link:** <https://www.itu.int/net4/wsis/forum/2021/Agenda/Session/321>

**Organization:** CDAC Network

**Date:** Friday, 9 April 2021

## IT in Disaster Risk Reduction (ITDRR)

**Workshop Name:** IT in Disaster Risk Reduction (ITDRR)

**Workshop Link:** <https://www.itu.int/net4/wsis/forum/2021/Agenda/Session/257>

**Organization:** International Federation for Information Processing

**Date:** Friday, 9 April 2021

### 1) Relevance with the WSIS Action Lines – please specify the Action Lines C1 to C11

C1, C2, C3, C4, C5, C6,

C7: • Disaster recovery • E-applications • E-agriculture • E-business

• E-environment • E-government • E-health • E-science

### 2) Did your workshop highlight any issues related to COVID-19? If yes, please explain.

1. One of the panelists, Kenny Meesters presented “Inside the Dutch National Corona Response: An information management view.”
2. Another panelist, Caroline Rizza talked about from Covid-19 crisis in France in terms of a better integration of citizens.
3. At the Q&A and discussion, the issues of COVID-19 were presented as a new type of disaster and is going away from the traditional response ways as a panelist, Frederick Beneban presented. Different ways of thinking are required.
4. Indeed, one question was “The COVID Pandemic shows that Information Society is really aware of the huge deficits. How to organize now for post-disaster documentation and aftermath?” One of the panelists, Hans Jochen Scholl compared the difference in crisis management for COVID019 in the U.S. and Europe, and suggested the use of a national incident management system which is not a computer system but it's rather a set of practices and procedures that everybody knows and wherever an incident occurs, every stakeholder can have the same language immediately.
5. According to Jochen, mitigation would mean that one goes to the root causes, and if we cannot change the root causes, we have to behave differently. Moreover, the reactor catastrophe in Fukushima at the Great East Japan Earthquake and Tsunami shows that the larger the incident, the more it has cascading effects. Accordingly COVID-19 effects will have long range not only economical, but also a health care, psychological and other effects that we will see in the years to come.

### 3) Key achievements, announcements, launches, agreements, and commitments

We have key achievements the issues of IT in Disaster Risk Reduction presented by the panelists as follows:

6. The new norm in crisis management is instability. We are trying to solve a crisis which is getting more complex than before, so that the previous conditions are not enough to solve.
7. The requirements of crisis information management system in future with important aspects of scalability and compatibility.
8. The purpose of crisis information management would be getting the information to the right people at the right time in the right format. More important aspect is people; one needs to train people or find a person who can support.
9. Citizens’ initiatives and social media are required for crisis management. it is



important for one to be aware of territory and acting local.

10. Lessons learned from the 1st stage of the COVID-19 crisis include recognizing citizens as full actors of the crisis management process, relying on the proximity of actors at the local level and mutual trust between public institutions and citizens required for operational crisis management
11. A conference on IT in Disaster Risk Reduction provides opportunity for academic scientists and practitioners.
12. The information processing for disaster management needs to include not only from data to information but also from information to produce knowledge/intelligence which is similar with the situation awareness model.
13. Trust, rhythm and speed were found important in disaster communications for emergency response at the Great East Japan Earthquake and Tsunami ten years ago.

- **Announcement**

1. ITDRR2021 will be held in 25-27 October 2021 in Japan.

#### **4) Main outcomes highlighting the following:**

##### **I. Debated Issues**

- Please capture highlights of the main issues discussed and interactions with audience

From the Q&A and panel discussions, we raised the following issues as well:

1. Question1: Upon the current environmental crisis, what is currently going wrong in regard to the crisis management phases? And how could the field of crisis management/IT in disaster risk improve upon this? Or even solve such disaster/crisis.
  - We are trying to solve a crisis that is getting more complex than before, so that the previous conditions are not enough to solve; e.g. two engineers in a garage used to be enough to construct an information system but they are not enough to construct the one for a spaceship.
  - There is a missing link in feedback loops in crisis management. Mitigation would mean that you go to the root causes. If you cannot change the root causes, you have to behave differently.
  - Human aspects are important. 90% people were saved by local people. One needs flexibility to empower the other people.
  - People affected are more complex. COVID-19 is going away from the traditional response ways. Different ways of thinking are required.
2. Question 2: What is the role of Information Society that expects up-to-date complexity support and handling. The COVID Pandemic shows that Information Society is really aware of the huge deficits. How to organize now for post-disaster documentation and aftermath?
  - We develop systems, thinking that are set for the next five years, but any system we put in place now, is something that

we should have had at the beginning of this crisis and not something we need at the start of the next one. What we need to start the next one, we do not know yet. The goal is to be ready when a crisis hits; you need to have people, processes, and system structures in place. One needs to start hiring the right people and need to start training at the level of information management architects.

- Comparing the COVID-19 response in some European countries and United States, the difference is as follows. In the U.S., on a national level emergency response, the national incident management system has been used for long. The system is not a computer system, but it is rather a set of practices and procedures. Since the stakeholders know the system and wherever an incident occurs, they can have the same language immediately.

While all emergency personnel in U.S. are trained for both 20 years in the incident command system, it is missing for the European countries, because the need has not been in Europe than those in U.S. with more incidents.

Now the COVID19 response, after a dramatic change in approach of the last federal administration to the new environment illustration shows how effective this national incident management system can be applied to be able to organize to vaccinate 4 million people a day and to have 20% of the population vaccinated at least first time.

For the second question, in the U.S. collaboration between the military, the National Guard, which is regional and local and the civilian responders played out very nicely in the COVID-19 vaccine distribution effort.

3. Question 3(raised by the moderator): How are computer scientists, information scientists and IT people involved with crisis management in your countries? In Japan, it is hard for us to let those computer scientists come and join practitioners and risk managers in crisis management.

- In the U.S., for instance, a panelist, Hans Jochen Scholl is a member of disaster management committee of city of Seattle and have access to all the practitioners and they asked me for support. Close relationship. that disaster response management is also a lot of personal trust.
- We are always looking at technology, but the first thing in disaster response is “Can I trust this person?” that what is the message that I get is that something trustworthy. This element is more important than technology.
- The gap between practitioners and computer scientists does

exist but not so much in Europe as in Japan. Social scientists can play very good role as the connection point because they understand those two domains, viz. practitioners and computer scientists.

- There is a difference in training between two domains, practitioners and computer scientists. Computer science students do not know much it cost to build software they are trained to create, which practitioners need to know. On the other hand, while 50% performance is not acceptable for scientists and engineers, it is fine with the practitioners. We may well need to provide practical courses for students.
  - Technology should be user-centered. Social scientists would work closely with practitioners as they need to understand processes as well as technology. This way social scientists are different from computer scientists.
- Please highlight key achievements and challenges shared by the audienceand/or panelists
    1. There is fundamental shift happening in crisis management, which COVID-19 has accelerated even more. We are trying to solve a crisis that is getting more complex than before, so that the previous conditions are not enough to solve
    2. For crisis management what we need include not only technologies but also procedures, processes and people.
    3. We need citizen initiatives and use of social media. Trust is important within the people and organizations
    4. The challenge now is to develop, deploy and maintain the socio-technical information systems to support the response, but with the flexibility new unexpected crisis situations would need inclusive approaches including affected population and rapid integration of new technologies.
    5. To integrate IT scientists, engineers and practitioners in crisis management, social scientists would play a major role to connect people in those two different domains.

## II. Quotes

- Please provide two important quotes from the session and the names & organisation of the person you are quoting

We have four quotes in our session as follows:

1. Frederick Benaben (IMT Mines Albi, France):

- “We are trying to solve a crisis that is getting more complex than before, so that the previous conditions are not enough to solve; e.g. two engineers in a garage used to be enough to construct an information system but they are not enough to construct the one for a spaceship.”

2. Hans Jochen Scholl (University of Washington, U.S.A.):
  - “Every catastrophe shows that the larger the incident, the more it has cascading effects. And, in the case of the COVID-19 pandemic we will have long-term effects not only economical, but also in health care, psychological care, and other yet unknown effects that we will see in the years to come. Hopefully we will learn our lessons to mitigate the next pandemic.”
3. Kenny Meesters (Tilburg University, Netherlands) :
  - “We develop systems, thinking that are set for the next five years, but any system we put in place now, is something that we should have had at the beginning of this crisis and not something we need at the start of the next one. What we need to start the next one, we don't know yet. The goal is to be ready when a crisis hits; you need to have people, processes, and system structures in place.”
4. Caroline Rizza (I3 CNRS (UMR 9217), Telecom Paris, Institut Polytechnique de Paris, France)
  - “In order to build a close relationship between stakeholders, public private institutions citizens, companies. There is a need to build trust. What we see as a very local level is that they know each other, there is a specific familiarity between each other, so this trust already.”

### III. Overall outcomes of the session highlighting

- main conclusions reached during the discussion
  1. There is fundamental shift happening in crisis management, which COVID-19 has accelerated even more. We are trying to solve a crisis which is getting more complex than before, so that the previous conditions are not enough to solve.
  2. For crisis management what we need include not only technologies but also procedures, processes, and people. Moreover, we need citizen initiatives and use of social media.
  3. Trust within the stakeholders is more important than technology in crisis management.
  4. Mitigation would mean you go to the root causes, and if you cannot change the root causes, you have to behave differently.
  5. The challenge now is to develop, deploy and maintain the socio-technical information systems to support the response, but with the flexibility new unexpected crisis situations would need inclusive approaches including affected population and rapid integration of new technologies.
  6. To integrate IT scientists, engineers and practitioners in crisis management, social scientists would play a major role to connect people in those two different domains.
- the vision for implementation of WSIS Action lines beyond 2015

1. C1. The role of governments and all stakeholders in the promotion of ICTs for development
  - Disaster management is one of the important risk management issues at governments as well as all stakeholders in the promotion of ICTs for development
2. C2. Information and communication infrastructure: an essential foundation for an inclusive information society
  - The availability of information and communication infrastructure is important for disaster response.
3. C3. Access to information and knowledge
  - Access to information and knowledge is important for situation awareness at disaster.
4. C4. Capacity building
  - Capacity building is needed for training ICT professional as well as crisis responders.
5. C5. Building confidence and security in the use of ICTs
  - Building confidence and security in use of ICTs for disaster communications including privacy issues.
6. C6. Enabling environment
  - Enabling environment is related closely to natural disaster.
7. C7. ICT applications: benefits in all aspects of life
  - Disaster management required all the relevant ICT applications: benefits in all aspects of life — E-government, E-business, E-learning, E-health, E-employment, E-environment, E-agriculture, and E-science.
8. C8. Cultural diversity and identity, linguistic diversity and local content:
  - Disaster information should be shared by every citizen in the world for future preparedness and mutual support.
9. C9. Media
  - Media is important once disaster happens to inform people of the current situations.
10. C10. Ethical dimensions of the Information Society:
  - Ethical issues are important at disaster not to spread biased misinformation.
11. C11. International and regional cooperation
  - International and regional cooperation is essential once a catastrophe occurs. For instance, the current global catastrophe from COVID-19 has shown such a situation.

**5) Main linkages with the Sustainable Development Goals (please specify the SDGs)**

- Our workshop is concerned with disaster so that it is related to all the goals as follows:
  - a. GOAL 1: No Poverty
    - i. Target 1.5: to build the resilience of the poor and those in vulnerable situations and reduce their exposure and vulnerability to climate-related extreme events and other economic, social and environmental shocks and disasters.
  - b. GOAL 2: Zero Hunger

- i. Target 2.4: by 2030, to ensure sustainable food production systems and implement resilient agricultural practices that increase productivity and production, that help maintain ecosystems, that strengthen capacity for adaptation to climate change, extreme weather, drought, flooding and other disasters and that progressively improve land and soil quality.
- c. GOAL 3: Good Health and Well-being
  - i. We presented COVID019 issues in our workshop this time.
- d. GOAL 4: Quality Education
  - i. Education is important for all the aspects of disaster management. In particular, our workshop identifies the need for training personnel.
- e. GOAL 5: Gender Equality
  - i. At disaster mortality rate for women is higher than the one for men, so that this issue is important in terms of disaster, although we have not looked into enough this time.
- f. GOAL 6: Clean Water and Sanitation
  - i. At disaster clean water and sanitation issues are one of the important aspects related to our workshop, although we have not looked into this time.
- g. GOAL 7: Affordable and Clean Energy
  - i. It is essential that one has access to energy such as electricity to use information systems and tools for communications at disaster. In terms of sustainability, this goal is related closely to our workshop issues, although this time we have not discussed in this aspect.
- h. GOAL 8: Decent Work and Economic Growth
  - i. Decent work and economic growth issues such as Business Continuity Plan (BCP) issues are one of the important aspects related to our workshop, although we have not looked into enough this time.
- i. GOAL 9: Industry, Innovation and Infrastructure
  - i. Industry, innovation and infrastructure issues are one of the important aspects related to our workshop, although we have not looked into this time.
- j. GOAL 10: Reduced Inequality
  - i. At disaster mortality rate for women is higher than the one for men, so that this issue is important in terms of disaster as well as diversity.
- k. GOAL 11: Sustainable Cities and Communities
  - i. This is the main SDG into which disaster issues are usually categorized, so that our workshop is related tightly.
- l. GOAL 12: Responsible Consumption and Production
  - i. We have a question at the workshop on consumption issues.
- m. GOAL 13: Climate Action

- i. Climate action issues are one of the important aspects related to our workshop, in particular situation awareness and disaster.
- n. GOAL 14: Life Below Water
  - i. At disaster, water and sea might be contaminated, so that this goal is related to our workshop, although we have not discussed on this issue.
- o. GOAL 15: Life on Land
  - i. Protection of land and environment is closely related to disaster as well, although this time our workshop did not look into this issue.
- p. GOAL 16: Peace and Justice Strong Institutions
- q. GOAL 17: Partnerships to achieve the Goal
  - i. Many members of IFIP WG5.15 are from another ITDRR-related community, ISCRAM(Information System for Crisis Response and Management) which has been founded much earlier than WG5.15.

#### **6) Emerging Trends related to WSIS Action Lines identified during the meeting**

From the issues from the outcomes of our workshop, we identified the need for a change in the current WSIS Action Lines as follows:

- While the issues on building confidence and security in the use of ICTs are categorized in C5, it is missing how safety issues such as disaster are to be dealt with in the current action lines.
- C4. Capacity building is needed for training ICT professional as well as crisis responders. Moreover, ICT trainings for citizens would be required.
- Trust within the people is important and the issue would be categorized either C5 or C10. C5 is more technology-oriented so that C10 could include the trust issues.
- While access to information and knowledge is presented in C3, in terms of disaster response, what is needed is how to produce knowledge as well as to update or even change the previous knowledge.
- The challenge now is to have socio-technical issues with information management in crisis management, which is missing in the current action lines.
- To integrate IT scientists, engineers and practitioners in crisis management, social scientists would play a major role to connect people in those two different domains. From this viewpoint, the action lines could include social science aspects as well as safety and crisis management issues.





## E-Commerce, Mobile Payment, and Internet Finance

**Workshop Name:** E-Commerce, Mobile Payment, and Internet Finance

**Workshop Link:** <https://www.itu.int/net4/wsis/forum/2021/Agenda/Session/285>

**Organization:** GTI

**Date:** Monday, 12 April 2021

### 1) Relevance with the WSIS Action Lines – please specify the Action Lines C1 to C11

Our workshop is strongly related to WSIS Action Lines C1, C2, C5, C6 and C7. We will introduce the relevance between our topic and Action Lines one by one.

#### **C1 The role of governments and all stakeholders in the promotion of ICTs for development**

Our session covers the topics related to e-commerce, mobile payment and internet finance. All of them rely on advanced ICTs. Our session not only focuses on the promotion of e-commerce, mobile payment and internet finance by the private sector, but also stresses the policy support by the government and the cooperation between the private sector and government.

#### **C2 Information and communication infrastructure: an essential foundation for an inclusive information society**

Our session covers the internet finance and financial inclusion. Financial inclusion improves the accessibility of disadvantaged group to finance, and this is based on the affordable smartphones, satellite data, popularity of Wireless and other information and communication infrastructure in the remote and marginalized areas.

#### **C5 Building confidence and security in the use of ICTs**

Our session covers the cybersercurity and data privacy. Transaction security, customers' information security, surveillance, etc. are among topics we' d like to explore in our workshop. We invite speakers to talk about cybersecurity and data privacy of e-commerce, mobile payment and internet finance, based on their experience and expertise.

#### **C6 Enabling environment; C7 ICT applications: benefits in all aspects of life**

Our session covers the topic "e-commerce in the time of COVID-19", which provides the enabling environment and is one kind of ICT applications. The COVID-19 crisis has led people in many countries to significantly limit physical interactions, which has put a large share of traditional brick-and-mortar retail virtually on hold, at least temporarily. However, the lockdown policies actually boosted the development of e-commerce. In the United States, the share of e-commerce in total retail spiked to 16.1% between the first and second quarter of 2020. We invite the speakers to talk about the impact of COVID-19 on the e-commerce and related policy support required for this new trend.

### 2) Did your workshop highlight any issues related to COVID-19? If yes, please explain.

Our workshop covers the topic "e-commerce in the time of COVID-19". The COVID-19 crisis has led people in many countries to significantly limit physical interactions, which has put a large share of traditional brick-and-mortar retail virtually on hold, at least temporarily. However, the lockdown policies actually boosted the development of e-commerce. In the United States, the share of e-commerce in total retail spiked to 16.1% between the first and

second quarter of 2020. We invite the speakers to talk about the impact of COVID-19 on the e-commerce and related policy support required for this new trend.

**3) Key achievements, announcements, launches, agreements, and commitments**

N/A

**4) Main outcomes highlighting the following:**

**I. Debated Issues**

- Please capture highlights of the main issues discussed and interactions with audience

The speakers have discussed the topics of internet finance, mobile payment, regulations, etc: Robert Koopman analyses the changes e-commerce brought to trade, Jeonmin Seong discussed how mobile payment like Alipay and WechatPay has changed the markets in China; Ivo Jenik talked about the use of internet finance for financial inclusion; Prof. Chen Zhang discussed a lot about the regulation of fintech; Nicholas Frank talked about the global governance of e-commerce.

Question: *"Does covid strengthen to role of digital technologies in world economy and how so?"*

Robert Koopman: *"Yes, absolutely the digital technologies have strenthen during the time of covid. The policies limiting proximity related services have caused caused a faster and larger shift to online provision of services, businesses and households have been very innovative in adapting to the current circumstances, as have governments as they learn what works."*

Question: *"One of the obstacles of financial inclusion is that the poor have relatively low credit and are usually difficult to and find it usually difficult to repay the debt, what is the advantage of digital finance compared to traditional finance and solving this issue?"*

Ivo Jenik: *"Financial services and digital technology comes with a lot of benefits that may leads to extended access to credit and i'll give some examples of how it's happening, we don't really have time to unwind that complex question because it's absolutely right that there are important gaps in access to credit, not only from among the poor people, but also very significantly from among micro enterprises and small and medium enterprises."*

Question: *"What impact does Covid have on e-commerce in China?"*

Jeonmin Seong: *"Again, it's acceleration, Russia, China, the E commerce penetration has been very fast and very high and then last year. You'd actually penetrated 1.6 times faster than the historical trajectory and same situation in other emerging economies such as India, in case of India, it was two times right, so therefore It will continue to get accelerated and then you know second change is the the introduction of new experimentation, there is lots and lots of new experimentation, for example, live streaming right or community buy."*

Question: *"How does COVID influence financial risk and regulations in China?"*

Chen Zhang: *"The risk of finance is under control in China. Chinese monetary policy was more conservative during covid to prevent the financial risks"*

- Please highlight key achievements and challenges shared by the audience and/or panellists

The key achievement of the workshop was to give the audience the most updated picture of e-commerce, mobile payment and internet finance during the COVID.

## II. Quotes

- Please provide two important quotes from the session and the names & organisation of the person you are quoting

### ① Nicholas Frank, Australian National University:

*"It is likely that innovation in E-commerce in the digital economy space is going to continue regardless of what happens at the WTO."*

*"While the system that has a degree of polycentrism where you've got competing houses of government is a system in which you tend to have more regulatory innovation. At the same time, you don't want a system that's too fragmented."*

### ② Robert Koopman, World Trade Organization:

*"There will be some changing patterns of comparative advantage you've seen this in the production of goods moving to emerging markets in developing countries, we expect that to happen for things like financial services also it'll bring about great opportunities, but also some challenges things to worry about are things like market concentration loss of privacy security threats and then productivity and the digital divide."*

## III. Overall outcomes of the session highlighting

- main conclusions reached during the discussion  
Covid has impacted and had a huge impact on e-commerce, mobile payment and internet finance. The pandemic has accelerated the use of technology in the industry since people are mostly online at home. The trend will likely continue even after we put covid under control.
- the vision for implementation of WSIS Action lines beyond 2015  
Information and communication infrastructure: inclusive information society  
Building confidence and security in the use of ICTs  
International and regional cooperation

## 5) Main linkages with the Sustainable Development Goals (please specify the SDGs)

In the keynote speaking, Mr. Jeník talks about how the financial inclusion supports SDGs. Firstly, financial inclusion contributes to the achievement of SDG 1. For example, 194,000 people lifted out of poverty because proximity to agents enables more income generation choices and efficient safety net in Kenya. Secondly, financial inclusion also supports SDG 2. In Malawi, farmers with commitment savings increased investment by 13% and boosted crop output by 21%, which helps solving hunger problem. Thirdly, SDG 3 is also supported by financial inclusion. A typical example is Nepal: when hit with health shocks, households with

savings accounts suffered smaller income drops than households without accounts. Fourthly, financial inclusion supports SDG 4. A study conducted in Nepal shows that households with free bank accounts spent 20% more on education. Lastly, financial inclusion also supports SDG 8. A set of studies show that access to credit is linked to higher probability of job creation and improved risk coping.

**6) Emerging Trends related to WSIS Action Lines identified during the meeting**

There is an emerging trend related to WSIS Action Line C2. Mr. Jeník talks about the digital finance and financial inclusion. Digital finance is based on some ICT infrastructure, such as the affordable smartphones, satellite data, and popularity of Wireless in the remote and marginalized areas. Since digital finance is important for financial inclusion, we need more information and communication infrastructure in the remote and marginalized areas, and we should make sure that they are accessible to the poor.

**7) Suggestions for Thematic Aspects that might be included in the WSIS Forum 2022**

We suggest the following three thematic aspects for the WSIS Forum 2022:

- ① The global economy in the post-COVID era;
- ② The role of mobile payment and digital finance in the post-COVID era;
- ③ The impact of COVID on the achievement of SDGs

## Assistive Technology and Software solutions to Empower Children with Physical, Motor and Intellectual Disability

**Workshop Name:** Assistive Technology and Software solutions to Empower Children with Physical, Motor and Intellectual Disability

**Workshop Link:** <https://www.itu.int/net4/wsis/forum/2021/Agenda/Session/378>

**Organization:** Ada Lovelace Software Private Limited, INDIA and Key2Enable, UAE

**Date:** Wednesday, 14 April 2021

### 1) **Relevance with the WSIS Action Lines – please specify the Action Lines C1 to C11**

The educational platform Simplix brings children and women with disability, bring under the ambit of digital Inclusion, the common desire and commitment to build a people-centered, inclusive and development-oriented Information Society, where everyone can create, access, utilize and share information and knowledge, enabling individuals, communities and peoples to achieve their full potential in promoting the sustainable development and improving their quality of life.

### 2) **Did your workshop highlight any issues related to COVID-19? If yes, please explain.**

Covid ability: Children with Disability can use the Online educational Platform at home when Schools are closed during Lockdown and similar situation was addressed in detail.

### 3) **Key achievements, announcements, launches, agreements, and commitments**

Working in close association with Key2Enable in India, also plans to expand to entire South Asia. Collaboration, Co-Create, Synergies are absolutely necessary. Providing Disabled children with Assistive Tools and providing educational platform to schools, rehabilitation clinics, Hospitals in India on subscription basis are the major announcements and positive Commitments.

### 4) **Main outcomes highlighting the following:**

#### **Debated Issues:**

- The session focused on empowering children of determination to develop their skills and individualities by providing Assistive Technology tools and Innovative Software Solutions.
- With Simplix Unique Educational platform, children with disability can efficiently use computers and mobile devices for communicating, learning, gaming and become economically sustainable and main actors in the society.

#### **IV. Quotes**

“Artificial Intelligence, Assistive Technology and Digital Accessibility - Coexist they are complimentary to each other for better Results” - **Dr. Rakesh L, Director and Chief Technology Officer, Ada Lovelace Software Private Limited, INDIA.**

“No one should be left behind – Digital Inclusion is the Key” – Mr. Jose Rubinger, Co- Founder and CCO, Key2Enable, United Arab Emirates.

“If you are able to walk on the edges of the Cliff, you can walk Anywhere”-Thumb rule to asses disabled children performance in using Simplix – Mr. Marcelo Rubinger, Co- Founder and CCO, Key2Enable, Brazil.

“Teaching to Children with Special needs is challenging and Excitement” - Ms. Anju Key2Enable, United Arab Emirates.

#### **V. Overall outcomes of the session highlighting**

- Artificial Intelligence and Assistive Technology will empower Children with disability and thereby improving lives and livelihoods extensively. Predictive text, visual recognition and speech-to-text transcription are showing enormous potential for facilitating people with cognitive, learning, mobility disabilities.
- The product discussed can be used for several purposes. One of them is education which is fundamental for everything for disabled children. We can find Minimal brain dysfunction or specific learning disability with the gamification process we developed. Keeping in the view the vision for implementation of WSIS Action lines beyond 2015, we are supporting a particularly humanitarian cause, it also opens up employment opportunity for Persons with Disabilities.

#### **5) Main linkages with the Sustainable Development Goals (please specify the SDGs)**

SDG 8 (Decent Work and Economic Development) and SDG 10 (Reducing Inequalities). In this perspective, the purpose of the session was also aligned with Agenda 2030's SDG 4 (Quality Education).

#### **6) Emerging Trends related to WSIS Action Lines identified during the meeting**

In addition to generating a positive impact and strengthening institutional ties this educational platform for disabled children provides greater visibility, accountability, publicity and admiration by the general public. By supporting a particularly humanitarian cause, it also opens up with this impact investment, the opportunity to qualify productive labor and, consequently, to increase the employability of Persons with Disabilities, in compliance with the Quotas Law

#### **7) Suggestions for Thematic Aspects that might be included in the WSIS Forum 2022**

Social Impact of computing technologies- Reducing biases in AI, Empowering the Citizens, population with skills to equip to COVID-19 and future pandemic-preparedness, particularly in developing countries.

## Coding Tomorrow Project

**Workshop Name:** Coding Tomorrow Project

**Workshop Link:** <https://www.itu.int/net4/wsis/forum/2021/Agenda/Session/397>

**Organization:** Habitat Association & Turkey Vodafone Foundation

**Date:** Thursday, 15 April 2021

ICTs for Inclusive, Resilient and Sustainable Societies and Economies (WSIS Action Lines for achieving the Sustainable Development Goals) - Europe Region

**Workshop Name:** ICTs for Inclusive, Resilient and Sustainable Societies and Economies (WSIS Action Lines for achieving the Sustainable Development Goals) - Europe Region

**Workshop Link:** <https://www.itu.int/net4/wsis/forum/2021/Agenda/Session/307>

**Organization:** International Telecommunication Union - Office for Europe

**Date:** Friday, 18 April 2021



## Enabling policies for the accelerated pace of digitalization in Africa

**Workshop Name:** Enabling policies for the accelerated pace of digitalization in Africa

**Workshop Link:** <https://www.itu.int/net4/wsis/forum/2021/Agenda/Session/336>

**Organization:** International Trade Centre (ITC)

**Date:** Tuesday, 20 April 2021

### **1) Relevance with the WSIS Action Lines:**

The session discussed the enabling environment (C6) that will support the digitalization of small business in Africa (C7).

### **2) Did your workshop highlight any issues related to COVID-19? If yes, please explain.**

The panelists highlighted how COVID-19 has accelerated the pace of digitalization in Africa, forcing governments and the private sector to enter a “forced period of experimentation”. Drawing examples from Zambia and Uganda, panelists acknowledged that COVID-19 has negatively impacted the viability of many SMEs and the public sector faced serious challenges adapting its processes to the new reality. On the other hand, the pandemic has increased productivity across the continent, including because of remote working arrangements that cut down on commuting times. With most companies moving to remote and online working styles, there has been a high adoption of remote digital tools. Sectors like Finance and Agriculture have seen an increased adoption of digital platforms.

### **3) Key achievements, announcements, launches, agreements, and commitments**

There is a continued commitment within the private and public sector to accelerate digitalization; ICTAU, the Ugandan ICT association, announced its renewed intent to work closely with government to continue the digital transformation of the country. The AfCFTA in the next few years will be a platform dedicated to promoting the digital transformation of the continent, in particular with a view of improving the public sector capabilities and make them more efficient and transparent. The panelists suggested a knowledge-sharing platform across countries to share learnings, accelerate digitalization and increase youth involvement.

### **4) Main outcomes highlighting the following:**

#### **I. Debated Issues**

- Ms Chitra Rajeshwari, Executive Director of Avasant Foundation, shared key findings from a recent study published in partnership with the ITC, which suggested that there are many African IT companies available to continue fast-tracking digitalization. The study also shows that enhancing digital skills had a positive impact on the gender divide and enhanced employability.
- Rosemary Amondi, East Africa|Regional Director, Aspen Network of Development Entrepreneurs (ANDE) shared how COVID-19 has dramatically disrupted the viability of entrepreneurs including job losses and reduced sales.
- Rosemary shared that 40% of small businesses in Uganda for instance faced the possibility of failing in the next few months; in particular, gender-focused organizations faced higher risks of failure. Proactivity measures such as downsizing and shifting to remote work were taken. Beyond this, there has been a forced experimentation of digital tools within organizations to enhance viability. The B2B space also saw a rise in the adoption of e-market space due to social distancing. Boosting the adoption of technologies that enhance sales and productivity is very critical to the success of businesses.
- Elizabeth Ntege, newly appointed Chairperson of the ICT Association in Uganda (ICTAU), shared specific examples from the perspective of Uganda. Finance and Agriculture sectors of Uganda have faced the highest rates of digitalization, particularly the Fintechs and Ag-platforms.
- Dr. Chitundu Kasase, Director and CEO of National Technology Business Centre, shared insights on the specific strategies Zambia took to accelerate digitalization. These included the regulation of the digital space to create an environment that upholds data security, good data management and promote e-commerce.
- Mr. Martin Bwalya, Director of Knowledge Management NEPAD, shared how digitalization is key in the delivery of the AfCFTA. The AfCFTA is also striving towards data regulation and access including property rights, customs clearance etc., and ensuring policy certainty concerning trade and investment opportunities across the continent to accelerate ecommerce and digital frameworks. Mr. Martin highlighted the mutual link between profit-making and public institutions, and how AfCFTA and digitalization need each other to succeed and support businesses. He emphasized the need to enable frontline players in terms of infrastructure and trainings to take up this opportunity.

## II. Quotes

- “Embracing digitalization will improve public sector capabilities and delivery” – Martin Bwalya, NEPAD
- “Covid took the continent into a forced period of experimentation” – Rosemary Amondi, East Africa|Regional Director, Aspen Network of Development Entrepreneurs (ANDE)

## III. Overall outcomes of the session highlighting

- COVID-19 has boosted the pace of digitalization in Africa. However, it has been noted that there is much more that could be done to enhance the pace of digitalization, especially in the public sector.

- The session highlighted COVID-19 pandemic impact to digital trends across the continent and the gaps in the sector such as technologies adopted to combat COVID, mobile money increased usage, etc.
- The panelists shared key steps the public and private sectors should embrace to accelerate digitalization as well as emerging trends to look out for to benefit from this opportunity.

**5) Main linkages with the Sustainable Development Goals (please specify the SDGs)**

The session discussed how enabling public policies that will foster Africa's digital transformation contribute to the development of digital skills generating employment opportunities, in particular for youth and women. The enabling environment requires cooperation and partnerships amongst stakeholders from the private and public sector, with the support of the development community.

SDG 4 Skills

SDG 8 Decent Work and Economic Growth

SDG 5 Gender Equality

**6) Emerging Trends related to WSIS Action Lines identified during the meeting**

- Accelerated adoption of existing digital platforms that enhance viability of business have been observed across the continent. For instance the Electronic Tea Auction in East Africa.
- Public policies that will foster Africa's digital transformation will contribute to the development of digital skills generating new employment opportunities
- Intensified research into the future of work and increased tools for e-marketing. Upskilling people for this new future of work is a must.
- Policy makers have the opportunity to be leaders in innovation.
- Restructuring of markets to accommodate digitalization – that is looking at the affordability of devices, tools, and literacy.
- Improved capability of government as a result of embracing technology and manner they are functioning to deliver public services.

**7) Suggestions for Thematic Aspects that might be included in the WSIS Forum 2022**

- Managing the digital divide as a result of the accelerated pace of digitalization
- How the digital transformation contributes to a more sustainable economy
- The connectivity issue in developing countries, how this can be solved, and how it affects the digital transformation and vice versa

## Standards for Inclusion & ICT Readiness

**Workshop Name:** Standards for Inclusion & ICT Readiness

**Workshop Link:** <https://www.itu.int/net4/wsis/forum/2021/Agenda/Session/319>

**Organization:** Centre for Socio-Eco-Nomic Development

**Date:** Tuesday, 20 April 2021

### 1) Relevance with the WSIS Action Lines – please specify the Action Lines C1 to C11

C2: Encourage the design and production of ICT equipment and services so that everyone has easy and affordable access to them including older people, and promote the development of technologies, applications, and content suited to the older person's needs, guided by the Universal Design Principle and further enhanced by the use of assistive technologies. This will contribute to the UN Decade of Healthy Ageing as well.

C6: Promote inclusion of the older persons in the definition and design of online security, protection of university human rights and dignity in social media, e-commerce.

C7: e-health, e-employment, e-education, social participation and digitalised elderly care to complement the care provision by caregivers and to create benefits in all aspects of older person's life.

C10: Standards are one of the instruments important to ensure proper use of ICT and ethical behaviour.

### 2) Did your workshop highlight any issues related to COVID-19? If yes, please explain.

Yes, the issue of COVID-19 was mentioned in the context of ICT as key connector to medical information, services and social interaction. Lacking digital literacy and access to the internet or WIFI connection exasperate the vulnerability and isolation of the older persons.

### 3) Key achievements, announcements, launches, agreements, and commitments

The panel had a very interesting and insightful discussion. A consensus was reached that Coding Standards aligned to the principle of inclusiveness should be developed to empower the ageing and marginalized population. A publication will be prepared which will be based on the presentations and ensuing discussion of the workshop to mobilise public interest.

### 4) Main outcomes highlighting the following:

#### IV. Debated Issues

- Please capture highlights of the main issues discussed and interactions with audience

The key theme of debated issue was concerned with exclusion of the older population from digitalization and the potential benefits that digitalization offers. Such exclusion tends to result from social, economic and educational determinants which hinder the development of digital competences and in many cases access to the digital device and connectivity.

There are other "hidden" mechanisms that discriminate against certain social groups, such as older persons. Such as the complex design of a web portal making it harder to master the use of various functionalities; or the interface of a phone APP making it

difficult to understand. These hidden exclusions are usually embedded in digital products, APPs and services causing unintended consequences on the less digitally savvy population, mostly older, poorer and rural populations. In this instance, women tend to be disproportionately presented in these populations and face higher entry barriers.

Hidden discrimination is often unintentional and hard to detect. Product design tends to emphasise the “targeted customer groups” which consists most of the time of younger and more affluent groups as evidenced in the ready to wear clothing. Such marketing strategy is skewed against the older and less affluent groups and is linked to prevailing ageism.

Standardisation of the design process of ICT goods would raise awareness of this hidden bias and provide traceability through self-checking or third-party verification. Consequently, the private sector should also contribute to the effort of “leaving no one behind” in a digital world. A double burden of exclusion – digital and social – could thus be better prevented by engaging the suppliers of the digital goods to establish common standards of programming, coding and visualization.

The use of regulatory measures could be another option in reducing the hidden exclusion of groups like older persons due to the digitalization of our societies. The Chinese government has recently launched a regulatory response to this social issue by publishing a list of age friendly portals and service sites. Criteria used include general design specification of internet websites, mobile applications and an assessment whether applications are barrier-free and not discriminating for older people. A total of 115 websites and 43 APPs were assessed.

Adopting a developmental perspective like work life transition or ageing happens in a man-made environment. Research has identified successful working conditions that support better ageing. Therefore, embedding standards, including social standards in organisations will also facilitate the transition to healthy and active ageing.

- Please highlight key achievements and challenges shared by the audience and/or panelists

One of the key challenges in reducing digital inequality and exclusion is to create more effective and efficient measures, e.g., regulatory controls of digital products and services as in China, or voluntary adherence to established standards and guidelines. Comparative studies need to be conducted to see the cost and benefits of different intervention strategies.

While digital exclusion exists, there is also a shortage of disaggregated data according to age and location specifications. Therefore, it is challenging to identify the appropriate responses to remedy situations which exclude populations and achieving the intended results.

## V. Quotes

- Please provide two important quotes from the session and the names & organisation of the person you are quoting

“Ageing well in a digital world has moved from the earlier stage of understanding of linking technology with ageing to the current state of play, i.e., enhancing (virtual) social infrastructure.” Development of inclusive ICT infrastructure requires substantial investment to include everyone. (Klaus Niederlander, Executive Director, AAL).

“Digital inclusion is a human right AND concerns healthy living even during a pandemic.” (Lichia Saner-Yiu, President, CSEND)

## VI. Overall outcomes of the session highlighting

- main conclusions reached during the discussion  
A mix of policy tools have to be considered from standard setting, to public education and regulatory measures in order to achieve “Digitalisation for ALL”.
- the vision for implementation of WSIS Action lies beyond 2015  
Greater visibility of the issue of digital fairness and mobilization of non-state actors to participate in effort of setting standards through international NGOs such as International Organisation of Standardisation.

## 5) Main linkages with the Sustainable Development Goals (please specify the SDGs)

SDG 3: The use of ICT will promote health and wellbeing for all, including older persons

SDG 8: The use of assistive technology and promotion of age friendly working conditions will support the productive work of older workers

SDG 10: Standards, especially the design and management related standards, will promote social, economic and political inclusion of all people, irrespective of age or capability, thereby reducing inequalities within countries.

## 6) Emerging Trends related to WSIS Action Lines identified during the meeting

Discussion on digital fairness is not new. It has been highlighted in different WSIS action lines already, especially concerning C2 and C6 (see specifics below). The emerging demand from the civil society is a robust monitoring mechanism within WSIS context to measure progress.

*C2: Encourage the design and production of ICT equipment and services so that everyone has easy and affordable access to them including older people, and promote the development of technologies, applications, and content suited to the older person’s needs, guided by the Universal Design Principle and further enhanced by the use of assistive technologies. This will contribute to the UN Decade of Healthy Ageing as well.*

*C6: Promote inclusion of the older persons in the definition and design of online security, protection of university human rights and dignity in social media, e-commerce.*

**7) Suggestions for Thematic Aspects that might be included in the WSIS Forum 2022**

C10 states that “Standards are one of the instruments important to ensure proper use of ICT and ethical behaviour”. A better definition of various categories of standards and landscape, covering the whole process of input-throughput-output, need to be articulated within WSIS.

## ICTs and Smart Energy: Accelerating the use of ICTs for sustainability

**Workshop Name:** ICTs and Smart Energy: Accelerating the use of ICTs for sustainability

**Workshop Link:** <https://www.itu.int/net4/wsis/forum/2021/Agenda/Session/262>

**Organization:** Institute of Electrical and Electronics Engineers (IEEE)

**Date:** Tuesday, 20 April 2021

### 1) Relevance with the WSIS Action Lines – please specify the Action Lines C1 to C11

This workshop touches on three of the WSIS Action Lines:

- 2) Information and communication infrastructure
- 3) Access to information and knowledge
- 7) ICT applications: benefits in all aspects of life

### 2) Did your workshop highlight any issues related to COVID-19? If yes, please explain.

N/A

### 3) Key achievements, announcements, launches, agreements, and commitments

Announcement:

- IEEE project P2030.10.1 will be ratified soon; it will enable cost-efficient electricity access via the production of standardised tools for the community.

Panellists agreed that:

- Quick and reliable access to electricity in remote areas is only possible through the development of a DC ecosystem that can support access this in a sustainable manner. DC distributed power is the only way forward.
- We need electricity generation, financial models that enable the infrastructure and deployment, and we need the political will and social innovation to be able to provide electricity to underserved areas.
- Policymakers need to take the reality of national jurisdictions into account when supporting the transition from a grid system that relies on synchronous machines and large power stations to a system that integrates renewable energy.

### 4) Main outcomes highlighting the following:

#### I. Debated Issues

- Please capture highlights of the main issues discussed and interactions with audience
  - How to reach the ambitious sustainability goals while reducing carbon emissions
  - How to increase the share of renewable energy in the global energy mix
  - How renewable energy can be cost-competitive depending on a certain geography or infrastructure
  - What role standards can play in levelling the playing field in terms of reaching the more vulnerable communities in terms of ICTs, SDGs
  - How a fundamental paradigm shift could help to accelerate the use of ICTs for sustainability
  - What role can policies/standards play in shaping a more responsive



model to the energy demands globally especially in energy deficient parts of the world, and especially considering cybersecurity

- Please highlight key achievements and challenges shared by the audience and/or panellists
  - Achievements:
    - Learning from past achievements, such as recycling, and trying to build smart energy systems and waste reduction systems using ICT
    - Cost-competitiveness of renewable energy, such as solar and wind energy, compared to e.g., coal or nuclear energy
    - Standards can help in procuring/building of infrastructure and thus ensure interoperability of systems
  - Challenges:
    - How to incorporate reliable renewable energy solutions in an affordable way
    - How to approach mushrooming data storage needs and the resultant energy demands
    - How to address electronic waste recycling difficulties while new devices proliferate

## II. Quotes

- Please provide two important quotes from the session and the names & organisation of the person you are quoting
  - 1. Maïke Luiken:
    - *“Standards make building infrastructures easier.”*
  - 2. Julio Romero Agüero:
    - *“We need to invest more in technology in order to harvest 100% clean energy.”*
    - *“IEEE’s Power and Energy Society has a tremendous role to play in developing new technology that we can use to build a system that relies on renewable energy.”*
    - *“IEEE is leading the work in making sure that the Grid of Things is secure.”*

## III. Overall outcomes of the session highlighting

- main conclusions reached during the discussion
  - i. Smart energy systems are essential for helping to reduce energy wastage.
  - ii. Renewable energy systems are largely cost-competitive compared with traditional energy sources.
  - iii. Standards help level the playing field when providing energy access.
- the vision for implementation of WSIS Action lines beyond 2015
  - i. Pertinent Action Lines include 2) Information and communication infrastructure, and 3) Access to information and knowledge. The population has to be willing to make a change, and governments have to be willing to invest in building infrastructure aiming when aiming to provide energy access to underserved communities.

## 5) Main linkages with the Sustainable Development Goals (please specify the SDGs)

Several SDGs come into play in this conversation about ICTs and energy:

- a. *SDG 7: Ensure access to affordable, reliable, sustainable and modern energy for all* of course stands out. Renewable energy and distributed energy resources integration (distributed generation, distributed energy storage, microgrids) are two parts of the discussion on the energy supply side. Renewables directly relate to *Target 7.2* of the SDG, “By 2030, increase substantially the share of renewable energy in the global energy mix.” Distributed energy resources integration supports *Target 7.1* “By 2030, ensure universal access to affordable, reliable and modern energy services.” They can facilitate cleaner energy and better access, respectively. Meanwhile, devices can be made to use less energy and be part of a circular economy on the consumer side. These aspects relate to both access and sustainability of energy.
- b. Also pertinent is *SDG 13: Take urgent action to combat climate change and its impacts*. Exploring the energy conservation potential of clean, renewable energy sources and how to connect them to the grid will help to combat climate change. As well, attention to the circular economy and how we produce and recycle hardware can have a positive impact.

## 6) Emerging Trends related to WSIS Action Lines identified during the meeting

WSIS Action Line 2) Information and communication infrastructure is an essential foundation for an inclusive information society, and sustainable energy systems enable inclusive access to ICTs. Distributed power sources and the use of Direct Current can help make the use of ICTs a possibility for more people. For example, mesh power supplies can bring energy into remote and marginalized areas, enabling Internet connectivity. Increased Internet connectivity meshes with WSIS Action Line 3) Access to information and knowledge.

Overall, the technologies discussed by the panel enable more communities to access information and knowledge via the Internet. This information has the potential to benefit many aspects of life (WSIS Action Line 7) -- Disaster recovery, E-applications, E-agriculture, E-business, E-commerce, E-employment, E-environment, E-government, E-health, E-publishing, E-science, ICT waste disposal, Sustainable production and consumption, Teleworking, Transparency, presenting many opportunities for people around the world.

## 7) Suggestions for Thematic Aspects that might be included in the WSIS Forum 2022

Given that the global response to the UN Secretary General’s short survey leading up to the UN75 celebration was that the environment is the number one priority issue to be addressed, *Action Line 20: Addressing e-environment issues and challenges, developing Green IT and using ICTs to mitigate climate change*, would be a strong candidate for a discussion. Specifically, how can we design for a smaller footprint? With our data storage and processing needs, the topic of greener ways to code could be addressed, for instance. A discussion of digital building blocks for eGovernance could be another topic. This

would cover *Action Line 21: Recognizing the importance of maintaining open ICT standards development processes for innovation in the ICT sector as key enablers for an*

## The role of technology to involve civil society in the Agenda 2030 achievement: Ideathons for the Sustainable Development Goals

**Workshop Name:** The role of technology to involve civil society in the Agenda 2030 achievement: Ideathons for the Sustainable Development Goals

**Workshop Link:** <https://www.itu.int/net4/wsis/forum/2021/Agenda/Session/343>

**Organization:** Fundación Cibervoluntarios

**Date:** Wednesday, 21 April 2021

### 1) Relevance with the WSIS Action Lines – please specify the Action Lines C1 to C11

AL C1. The role of governments and all stakeholders in the promotion of ICTs for development 2021

AL C3. Access to information and knowledge

AL C4. Capacity building

AL 7. ICT applications: benefits in all aspects of life

### 2) Did your workshop highlight any issues related to COVID-19? If yes, please explain.

We highlighted the key role of ICTs in response to the Global impact of COVID-19, helping out thousands of people in risk of digital vulnerability due to lack of technological skills. Raising awareness of the importance of universal access to Internet and Digital Competences appropriation by the Civil Society.

### 3) Key achievements, announcements, launches, agreements, and commitments

To build a real ecosystem of Innovation towards the AGENDA 2030, we need to engage Civil Society, **it is time to act** and make citizens be active part of the process by:

- Generating **alliances** that leads to social transformation
- One strategic point: **access and appropriation of technology** through Digital Competences
- **Replicable, collaborative and sustainable processes** to involve Civil Society in the Agenda 2030 like: The collective intelligence platform Empodera.org **with events like** Ideathons for the Sustainable Development Goals, with which we have reach 2.000 participants in Spain contributing with solutions and real actions for the SDGs, from a local to a global scope.
- Commitment: Grow www.empodera.org platform to reach Thousands in the collaborative achievement of the Agenda 2030, by providing scalable and replicable tools.

### 4) Main outcomes highlighting the following:

#### I. Debated Issues

- *Building Agenda 2030: By involving communities directly in initiatives and concrete actions related to the SDGs.*
- *Competences: Acquisition and certification of digital, entrepreneurship and innovation competences of all participants involved.*
- *Sustainability: Generation of a community of people interested in building and co-creating replicable solutions, from local to global, by acting on specific needs within their environment.*

## II. Quotes

*“ It is vital to guarantee BOTH access and appropriation of technological tools, far beyond digital literacy. Only this way will citizens become active agents of change in their communities Internet access is vital to accelerate the progress of humanity”*

*Yolanda Rueda, Founder and CEO of Fundación Cibervoluntarios*

*“ More than ever, It is critical to promote Technology to achieve a more inclusive and open society, and our common work must focus in putting Civil Society in the center in the Center of the Agenda 2030. The key is offer tools to enhance Digital transformation with social impact.”*

*Ángel Sola, Head of International Programs at Fundación Cibervoluntarios*

## III. Overall outcomes of the session highlighting

- Increase the rights, opportunities and capacities of thousands in situations of digital vulnerability
- Technology as a tool that helps citizens to participate and generate impact
- Facilitate alliances to create bespoke projects in a collaborative, replicable and scalable way
- ACT FROM LOCAL TO GLOBAL

## 5) Main linkages with the Sustainable Development Goals (please specify the SDGs)

The session covered all 17 SDGs

## 6) Emerging Trends related to WSIS Action Lines identified during the meeting

Fundación Cibervoluntarios has been working for 20 years to promote digital transformation with social impact. During the past year It's more and more obvious that digital competences are key to expand the rights, opportunities and capacities of thousands in situation of digital vulnerability focusing on three main replicable emerging Trends:

- Technological volunteer to increase the rights, opportunities and capacities of thousands in situation of digital vulnerability
- Acting local and respond globally thanks to replicable and open technology
- Building Agenda 2030: By involving local communities directly in initiatives and concrete actions related to the SDGs.

## 7) Suggestions for Thematic Aspects that might be included in the WSIS Forum 2022

- Technological appropriation by Civil Society as a universal right
- Building Agenda 2030 by involving local communities directly in initiatives and concrete actions related to the SDGs.
- Promoting acquisition and certification of digital, entrepreneurship and innovation competences of the Civil Society.

## Gender-inclusive innovation

**Workshop Name:** Gender-inclusive innovation

**Workshop Link:** <https://www.itu.int/net4/wsis/forum/2021/Agenda/Session/392>

**Organization:** Oslo Metropolitan University

**Date:** Wednesday, 21 April 2021

## ICTs and Future of Work

**Workshop Name:** ICTs and Future of Work

**Workshop Link:** <https://www.itu.int/net4/wsis/forum/2021/Agenda/Session/341>

**Organization:** Geneva-Tsinghua Initiative (GTI)

**Date:** Thursday, 22 April 2021

### **1) Relevance with the WSIS Action Lines – please specify the Action Lines C1 to C11**

- C3-ACCESS TO INFORMATION KNOWLEDGE
- C4-CAPACITY BUILDING
- C7-E-BUSINESS
- C7-E-EMPLOYMENT
- C11-INTERNATIONAL AND REGIONAL COOPERATION

### **2) Did your workshop highlight any issues related to COVID-19? If yes, please explain.**

COVID-19 has urged many organizations to adapt to the new ways of working remotely for their employees. New trends on the working environment were born and it is believed that in the post pandemic work these dynamics of homeworking will remain for the future in a hybrid form. Through digital technology, the emergence of remote work and remote offices have facilitated our work. But this at-home work is often without clear boundaries between private and workspace, the at-home time for leisure and the working time. There is no precise time limit for working at home, and limited structures that would fully support online collaboration and the work and life balance, in a holistic way. It has also become the new normal within organizations to embrace digital transformation, but boundaries in access persist.

### **3) Key achievements, announcements, launches, agreements, and commitments**

It was discussed the challenges of remote working present nowadays and how this situation would remain in a hybrid form for the future. The topic was addressed through the lenses of research-based studies as well as current corporate practices that different organizations are putting in place. Positive remote working cultures impact the wellbeing and performance of employees. It was highlighted different relationships on the topic such as the limits in the workplace, mental wellbeing and welfare, responsibilities of work staff management and schools' capacities, diverse ways of working and managing staff and the importance of adaptability of the communications among working teams to improve performance.

### **4) Main outcomes highlighting the following:**

#### I. Debated Issues

Some of the topics highlighted in this workshop were:

- Remote working has raised numerous new challenges for the home-office workers, es such

- as no time limit, over-working, burn out, no separation between private and workspace.
- Importance of the employee's mental well-being, effective online collaboration and the work and life balance.
- Post-pandemic working transition - hybrid working models with some employees back in office, others staying remotely.
- Organizations and employer's duty of adapting the workplace in order to keep the motivation of their employees and avoid the challenges mentioned above.
- The use of technologies to elevate the human capabilities as well as the employer's performance and productivity.
- Communications and virtual presenting skills to use in remote and hybrid working teams.

## II. Quotes

- Please provide two important quotes from the session and the names & organisation of the person you are quoting

Michael Whitmore, RAND Europe:

“Psycho-social factors increase employee productivity. Sense of belonging into a working group and being cared about by one's team can increase working efficiency and productivity.”

Jonny Gifford, CIPD - Chartered Institute of Personnel and Development:

“Challenge of creating team connections is greater if the participants did not know each other prior the pandemic. A potential trap for working teams is allocating responsibility for taking steps towards greater work resilience. Managers should claim this role and demonstrate this via action.”

Zofia Bajorek, Institute for Employment Studies:

“Holding effective performance and development conversations and giving one's employees timely feedback are important for successful remote working.”

Annika Månsson, Happy At Work:

“The “Three R” approach to effective working is measurable and detailed. These Rs are Relations, Results, Resilience. Relations include trust, listening & support, recognition and sharing. Results include Autonomy, use of skills, impact and resources. Resilience includes meaning, emotional capacity, mental capacity and physical balance.”

John Zimmer, Manner of Speaking:

“Meetings become more effective when they are interactive, when people are engaged, when people can have discussions in breakout rooms and come back.

There is no need to do all tasks in a synchronized manner (...) Pre-recording presentations to be watched by attendees in the time of their convenience is an effective strategy to create a highly productive online experience.”

## III. Overall outcomes of the session highlighting

Our panelists informed, shared their experience and expertise of the new trends of the future of work. The intent was to educate our global audience on the changing aspects of work, work patterns, and forms and the speakers successfully and comprehensively framed this issue.



**5) Main linkages with the Sustainable Development Goals (please specify the SDGs)**

- SDG 1 NO POVERTY
- SDG 3 GOOD HEALTH AND WELL-BEING
- SDG 8 DECENT WORK AND ECONOMIC GROWTH
- SDG 17 PARTNERSHIPS FOR THE GOALS

**6) Emerging Trends related to WSIS Action Lines identified during the meeting**

- C2 INFORMATION AND COMMUNICATION INFRASTRUCTURE

**7) Suggestions for Thematic Aspects that might be included in the WSIS Forum 2022**

- Data privacy and data safety for remote working employees
- Gender equality in future of work
- Data security in future of work

## Public Access: Supporting meaningful digital inclusion for underserved communities

**Workshop Name:** Public Access: Supporting meaningful digital inclusion for underserved communities

**Workshop Link:** <https://www.itu.int/net4/wsis/forum/2021/Agenda/Session/320>

**Organization:** International Federation of Library Associations and Institutions

**Date:** Friday, 23 April 2021

### 1) Relevance with the WSIS Action Lines – please specify the Action Lines C1 to C11

C2 - Information and communication infrastructure: an essential foundation for the Information Society (9c - In the context of national e-strategies, provide and improve ICT connectivity for all schools, universities, health institutions, libraries, post offices, community centres, museums and other institutions accessible to the public, in line with the indicative targets.)

C3 - Access to information and knowledge (10d - Governments, and other stakeholders, should establish sustainable multi-purpose community public access points [...])

C4 - Capacity building (11c - Promote e-literacy skills for all, for example by designing and offering courses for public administration, taking advantage of existing facilities such as libraries, multipurpose community centres, public access points and by establishing local ICT training centres with the cooperation of all stakeholders. Special attention should be paid to disadvantaged and vulnerable groups.)

### 2) Did your workshop highlight any issues related to COVID-19? If yes, please explain.

Yes: the discussion touched on the adjustments which established public access facilities have made to continue offering digital skills support and learning opportunities during the pandemic. This includes, for example, NLB libraries in Singapore introducing offices with 1-on-1 personalised guidance and a trial one-stop access point to (digital) public services, to support seniors facing the rapid digitisation of services.

In Lithuania, public libraries moved digital skills trainings for seniors online, as well as offering other digital services for more at-risk or vulnerable social groups – e.g. storytelling sessions, bibliotherapy sessions for disadvantaged families.

### 3) Key achievements, announcements, launches, agreements, and commitments

-

### 4) Main outcomes highlighting the following:

#### IV. Debated Issues

- Please capture highlights of the main issues discussed and interactions with audience

The session discussed the role public access plays in digital inclusion and connectivity affordability policies: access to ICT, digital skills learning opportunities, qualified support, a source of reliable high-capacity connectivity.

To illustrate the role of public access solutions in helping connect more vulnerable or underserved user groups, the panellists shared practical experiences from targeted public access interventions:

- Connectivity, digital skills learning opportunities and related services to help connect older users, implemented through public libraries in Lithuania
- Targeted digital skills learning opportunities for seniors – personalised assistance, learning communities, digital programming; implemented by the National Library Board, Singapore
- Mobile public access – Bibliobus and Sanitary Train initiatives to support digital inclusion and wellbeing in remote areas in Argentina; Library of the National Congress of Argentina
- Facilitating meaningful access to information for women: IdeasBox4Women, tailored interventions by BSF/Libraries Without Borders
- Please highlight key achievements and challenges shared by the audience and/or panellists

The panellists highlighted some key lessons learned about the barriers which particular underserved groups may be facing disproportionately – and which public access facilities can strive to overcome.

For example, seniors – particularly those who just started their digital journeys - could experience more reluctance or feel more intimidated by the idea of learning new digital skills; women and girls can face a combination of logistical, social and psychological barriers to engagement with initiatives fostering access to information.

The panellists also noted the need to overcome silos and work with partners when developing and implementing digital inclusion/access to information initiatives.

Finally, it is crucial to tailor public access interventions to the specific local needs and context, led by local stakeholders, practitioners and their knowledge, norms, and expertise.

On the other hand, the panellists shared important achievements in leveraging public access to overcome such barriers and support digital inclusion, particularly for the more vulnerable community members.

For example, in Singapore, around 280,000 users each month benefit from free access to multimedia workstations and internet in public libraries. Also in Singapore, in-depth 4-hour library sessions that help seniors explore advanced and new technologies attract 40-50 attendees each session; while learning communities that support seniors in their digital journeys have doubled attendance since their inception, from about 30 to 60-70 members in each community.

In Lithuania, over the past few years, nearly 100,000 adults have gone to a public library to learn computer skills.

BSF/Libraries Without Borders has launched a study to identify and diagnose underlying reasons for lower use of its information access facilities among women. Based on the findings, they designed and implemented tailored interventions, ranging from outreach training for facilitators to workshops, to facilitate women's engagement and better meet their information needs.

#### **V. Quotes**

- Please provide two important quotes from the session and the names & organisation of the person you are quoting

"One of the things we find in our research on a quite consistent basis - we've done this for quite a few years now – is that public access, and a government commitment to public access, is one of the strongest correlating factors with what is the ultimate affordability of internet access in a country" – Teddy Woodhouse, Alliance for Affordable Internet

"3 key guiding principles to lowering barriers to entry for seniors in the learning of technology: provide free/low cost access for learning technology for seniors, to reduce barrier to entry and to encourage first encounters and discovery with new and emerging technologies; provide a range of learning services across various formats and resources to cater to different preferences, interest areas and pace of learning amongst seniors; encourage conversations and peer-learning opportunities to demystify technology and provide a safe location to 'hangout' for senior tech learning." – Grace Sim, National Library Board, Singapore (slides)

#### **VI. Overall outcomes of the session highlighting**

- main conclusions reached during the discussion

Public access solutions support equity and affordability of connectivity, by offering free or low-cost access to the internet and ICT, various forms of digital skills building opportunities (e.g. remote and in-person classes, workshops, one-on-one consultations, learning groups and more), and services which further encourage engagement with the digital sphere (e.g. makerspaces, movie making, access to content...).

Public access solutions can be tailored to best meet the needs of underserved groups. This can be done, for example, by creating targeted learning opportunities (e.g. for seniors), ensuring that facilitators in a public access venue are best equipped to support such users (e.g. women); developing ICT-based services and programs tailored to the needs of specific groups (e.g. using public access facilities to offer experiences similar to movie theaters in more remote locations where people can't access one as easily).

The social element of public access-based approaches can be particularly beneficial in helping support digital inclusion for more vulnerable or marginalised users. For example, female facilitators in such venues can offer positive role models to support and encourage women's inclusion and participation; and peer groups can be very helpful in older users' digital skills learning journeys.

#### **5) Main linkages with the Sustainable Development Goals (please specify the SDGs)**

SDG 9c - significantly increase access to ICT and strive to provide universal and affordable access to internet in LDCs by 2020

**6) Emerging Trends related to WSIS Action Lines identified during the meeting**

-

**7) Suggestions for Thematic Aspects that might be included in the WSIS Forum 2022**

Public access solutions, meaningful digital inclusion, multistakeholder cooperation to support digital inclusion

## ICTs for Inclusive, Resilient and Sustainable Societies and Economies in the Arab States

**Workshop Name:** ICTs for Inclusive, Resilient and Sustainable Societies and Economies in the Arab States

**Workshop Link:** <https://www.itu.int/net4/wsis/forum/2021/Agenda/Session/338>

**Organization:** ITU

**Date:** Monday, 26 April 2021

## Implementation of WSIS Action Lines at the Regional Level: Digital transformation in Europe and Central Asia

**Workshop Name:** Implementation of WSIS Action Lines at the Regional Level: Digital transformation in Europe and Central Asia

**Workshop Link:** <https://www.itu.int/net4/wsis/forum/2021/Agenda/Session/308>

**Organization:** United Nations Digital Transformation Group for Europe and Central Asia

**Date:** Monday, 26 April 2021

### 1) Relevance with the WSIS Action Lines – please specify the Action Lines C1 to C11

- **C1** (the role of governments and all stakeholders in the promotion of ICTs for development)
- **C2** (information and communication infrastructure)
- **C3** (access to information and knowledge)
- **C4** (capacity building)
- **C5** (building confidence and security in use of ICTs)
- **C6** (enabling environment)
- **C7** (ICT applications: benefits in all aspects of life – E-government)
- **C7** (ICT applications: benefits in all aspects of life – E-business)
- **C7** (ICT applications: benefits in all aspects of life – E-learning)
- **C7** (ICT applications: benefits in all aspects of life – E-health)
- **C7** (ICT applications: benefits in all aspects of life – E-employment)
- **C7** (ICT applications: benefits in all aspects of life – E-environment)
- **C7** (ICT applications: benefits in all aspects of life – E-agriculture)
- **C7** (ICT applications: benefits in all aspects of life – E-science)
- **C8** (cultural diversity and identity, linguistic diversity and local content)
- **C9** (media)
- **C10** (ethical dimensions of the Information Society)
- **C11** (international and regional cooperation)

### 2) Did your workshop highlight any issues related to COVID-19? If yes, please explain.

- During the COVID-19 crisis, the role of ICTs and services, and the digital infrastructure that they ride and scale on have become central to continued economic and societal activity and to lessening the pandemic's impact. During this thematic workshop, the **UN Digital Transformation Group for Europe and Central Asia (UNDTG4ECA)** reaffirmed the key importance of adopting a multi-agency and multi-stakeholder approach to achieve the 2030 Agenda through ICTs as an urgent cross-cutting priority to enhance the use of digital solutions as enablers for building back better after COVID-19 and ensuring economic and social development at national and regional levels.
- Over the course of the event, the pandemic's impact on vulnerable groups, women and girls, students, parents and educators, persons living in remote and rural areas was highlighted. The COVID-19 pandemic exacerbated the "triple divide", therefore the existing socioeconomic disparities which are based on gender differentials, urban-rural

gaps and inequalities in access to ICT-based tools and digital platforms. **UNICEF** presented the flagship initiative “Learning Passport” to reform national school curricula and ensure that all students could access e-learning platforms and online educational materials to guarantee that, despite the need to adopt distance learning approaches due to the virus, no one was excluded from learning opportunities. Inclusion of women in STEM courses and increased female participation in the digital sector were also mentioned by **UN Women** as key priorities to overcome existing gender disparities in education and employment, further exacerbated by the COVID-19 crisis.

- Additionally, accelerating the development of safe, inclusive and people-centered digital health services and strengthening security and privacy through effective use of health data constituted important milestones shared by WHO to support the transition from systems of reactive care to preventive health. Over the course of the thematic workshop, the importance of providing a framework for results-oriented and immediate response to build more resilient national health systems in the face of the COVID-19 pandemic was also highlighted.
- **UNECE** discussed how electronic business solutions lead to enhanced trade facilitation through the adoption of multi-stakeholder, cross-border digital solutions, which, by enabling for a seamless flow of paperless information, decrease the risks of spreading the COVID-19 virus by avoiding direct contact between people along the trade supply chain.

### 3) Key achievements, announcements, launches, agreements, and commitments

- The United Nations Digital Transformation Group for Europe and Central Asia (UNDTG4ECA) is a multi-agency platform coordinating UN efforts to enhance digitalization and digitization processes in the Europe and Asia Regions. The Group seeks to deliver a “one UN” response to the cross-cutting priority of fostering digital transformation and ICTs development in the Regions, through the adoption of a multi-stakeholder approach and the implementation of initiatives and projects to achieve advancements in the digital sector. Co-chaired by ITU and UNECE, the Group promotes coordinated UN support to Member States in their implementation of the 2030 Agenda through ICTs, while advising the UN Country Teams (UNCTs) on digital transformation issues. The recently published ICT Solutions Stocktaking Report, listing a selection of initiatives and projects by the UNDTG4ECA, constitutes a valuable reference to understand scope and objectives of UN efforts to achieve the WSIS Action Lines.
- To address key challenges in terms of digital transformation and achieve the WSIS Actions Lines and subsequently the SDGs, ITU published two reports: Digital trends in Europe 2021 - ICT trends and developments in Europe, 2017-2020 and Digital trends in the Commonwealth of Independent States (CIS) Region 2021, highlighting changes in ICT adoption since the last World Telecommunication Development Conference in 2017 (WTDC-17) and during the COVID-19 pandemic, tracking the evolution of regulation, important issues related to innovation, cybersecurity, connectivity, and reviewing progress and challenges in the digital domain in the Europe and CIS Regions.

**UN Women** is constantly working with Member States, Civil Society Organizations (CSOs), the public and private sectors to bridge the existing gender digital divide, which has been particularly exacerbated by the COVID-19 pandemic. The **UN Commission on the Status of Women** aims at fostering female leadership and women and girls’ participation in public life, sharing good practices and



recommendations with Member States to ensure gender neutral access to ICT-based solutions and continuous learning of STEM subjects. This fundamental objective can be achieved by taking track of projects and initiatives' impact on female engagement in the public sphere and overall workforce participation. Strengthening existing networks of women will attract more female role models who can then successfully share their backgrounds and experiences, enhancing women's engagement and nurturing a culture of gender equality.

The upcoming **Generation Equality Forum**, organized by UN Women and held in Paris on 30 June – 2 July 2021, will entail participation of the **Technology and Innovation for Gender Equality Action Coalition**, co-led by UNICEF and ITU. Its work will focus on four priority areas: 1. Reducing by half the gender digital divide across generations. This will occur by ensuring that digital tools are universally accessible and become effective catalyzers to build back better after the pandemic; 2. Supporting investments in female technology and innovation. The underlying objective is to ensure a 50% increase in the overall amount of national private investments to create a more gender balanced digital ecosystem; 3. Implementing gender policies to double the proportion of women working in the digital and innovation sectors; 4. Introducing policies and projects to eliminate online and other forms of gender-based violence related to the use of ICT solutions and digital platforms.

The COVID-19 pandemic forced countries to switch to online learning platforms and digital solutions to redesign the way education is traditionally delivered according to social distancing rules and nationally adopted health measures. **UNICEF** launched the flagship initiative "**Learning Passport**", aimed at developing national digital platforms for learning and education. It supports students, educators and parents in accessing digital solutions to ensure universal access to education. Particularly, Learning Passport constitutes a highly flexible and adaptable initiative, allowing countries to adopt this ICT-based tool as a national learning management system or use it to complement existing digital learning platforms. Powered by Microsoft, it has been developed with a unique suite of online and offline functionalities and abilities. The platform could be further scaled up to prioritize deployment in places with intermittent or no internet connectivity - often locations where children find themselves unable to access quality digital education tools and content. The platform serves local, contextualized content as well as global supplementary resources to support learners and improve learning outcomes. Learning Passport was implemented in 9 countries, including Timor-Leste, Kosovo, Zimbabwe and Honduras and more than 20 countries are currently in the deployment process. This online learning tool provides support along the whole education continuum (from pre-school to higher education), being flexible, equipped with unique online and offline functions, able to track changes in time and space, scalable across countries to reach concurrently as many students as possible, as well as suitable for populations with low digital skills. Deployment of the platform at the country level ensures proper use and access to digital solutions in the education domain: particularly, Kosovo and Tajikistan are launching platforms included in the Learning Passport toolkit for primary and secondary education, while Serbia and Ukraine introduced professional development trainings for teachers to acquire advanced digital skills, ensure cost-efficiency and increasingly engage national Ministries of Education.

The initiative "**Empowerment through Digital Health**" was established by **WHO Europe** as part of the European Program of Work to coordinate the strategic implementation of digital health initiatives in the Europe Region. Within this context, the Digital Health Flagship provides policy guidance and technical expertise to countries on the safety and efficacy of digital health solutions, preserving equity, gender equality and human rights as core values of their development and deployment. Particularly, the Digital Health Flagship will operationalize **WHO Global Strategy on Digital Health 2020–2025**, which was adopted by the Seventy-third World Health Assembly in 2020. The initiative underscores

three core objectives: 1. Accelerating the development of safe, inclusive and people-centered digital health services; 2. Strengthening health security through digital health and effective use of data; 3. Leveraging digital technologies to support the transition from systems of reactive care to preventive health. Additionally, to ensure that the actions of the initiative are aligned with Member States' key policies and programs relating to digitalization in the health sector, the following priority areas have been identified as an initial focus of work: strengthening of primary health care through better use of data; development of a digitally capable health workforce; enhancement of health data governance; digital delivery of mental health services; and introduction of Artificial Intelligence (AI) and machine learning in health systems and public health. In 2021 and 2022, WHO Europe will establish sub-regional networks for digital health in the Western Balkans, Central Asian Republics and Eastern European Partnership countries. These networks aim to provide learning and support opportunities for Member States, boosting experience and knowledge sharing, promoting best practices, and encouraging formation of strategic partnerships to foster multi-stakeholder cooperation and synchronization of UN system efforts for the development and implementation of digital health policies and programs.

In order to fully capture the advantages deriving from the deployment of digital tools and platforms and comprehensively exploit the benefits of digital transformation in the context of the Fourth Industrial Revolution, **UNIDO** works in close collaboration with governments, Civil Society Organizations (CSOs), Small and Medium Size Enterprises (SMEs) to increase their capacity to innovate, scale up their business platforms, and boost their potential to create new jobs and become key players in the global economy. To overcome issues related to access to basic infrastructure and national broadband networks, particularly in countries of Eastern Europe and Central Asia, UNIDO works to implement and scale up impactful initiatives and projects to foster entrepreneurship, introduce e-business solutions, enhance sustainable industrial development and strengthen regional and international cooperation in the digital domain. Even if unable to quantify benefits deriving from investments in digital solutions early in advance, governments must support companies through the creation of enabling regulatory and policy frameworks so that SMEs, start-ups, businesses of all kind are encouraged to direct their investments towards innovation, believing in the power of creative destruction as a key tool to enhance the comparative advantage of technology early adopters.

**UNECE** recognizes the central role played by electronic business solutions in ensuring trade facilitation through the adoption of multi-stakeholder, cross-border and paperless digital solutions. To respond to the COVID-19 pandemic, the UN System joined forces and embraced a multi-agency approach, introducing practices for multi-modal data exchange harmonization, specifically relying on UN/CEFACT standards and reference data models. **The UN/CEFACT Multi-Modal Transport Reference Data Model (MMT-RDM)** aims at fostering the implementation of new data exchange standards to achieve a seamless flow of information along the supply chain. Data standards for key documents accompanying cargos become easily accessible and available to users on a daily basis. Additionally, the project does not create new documents, rather it allows for existing standards to be more discoverable and useable - building strong foundations for multimodal interoperability. This mechanism ensures benefit of all parties participating in the exchange of information. Accuracy and completeness of information, timely submissions, use of data only for specified purposes are as well key factors underlying the core functional and operational capacities of MMT-RDM. This mechanism allows to achieve unfragmented digitalization. On the same grounds, **FIATA Digital Strategy** will allow participating members to exchange secured and authenticated data, access, use and sign up-to-date trade documents, and leverage industry intelligence through the implementation of Transportation Management Systems (TMSs) and the deployment of trade-related software.

**WMO** deploys data and information sharing devices to forecast weather and climate occurrences on a global scale, providing users with advanced access to diverse information from a wide range of sources and enabling weather, water and climate information to be related to multiple socioeconomic contexts. Constituting an open ecosystem of tools and applications and allowing all information providers to manage, publish and share their data, **WMO Information System 2.0 Strategy (WIS 2.0)** is a collaborative system of systems using Web-architecture and open standards to provide simple, timely and seamless sharing of trusted weather, water and climate data and information through services. It allows users to adopt Web technologies in the meteorological domain, leverage industry best practices and open standards, exploit Uniform Resource Locators (URL) to identify resources (i.e., Web pages, data, metadata), prioritize the use of public telecommunications networks when publishing digital resources, provide “data reduction” services that process big data to create results or products that are small enough to be conveniently downloaded and used by those with minimal technical infrastructure. Provided that global forecasts do not depend on countries disparities in terms of geographical location and GDP levels, strengthened globalization and cross-country data exchanges are fundamental to ensure precise, timely and comprehensive international meteorological predictions through the use of ICT-based tools and digital solutions.

Rural areas are characterized by poor quality of connectivity and households’ limited access to digital solutions despite ICT prices are the same as in urban areas. **FAO** is working to bridge the existing triple divide, a term referring to exacerbated country-based digital, rural and gender disparities. Returns to investments in digital solutions are as well particularly low in rural areas. Through the implementation of **FAO’s Digital Village** approach, rural villages will increasingly gain access to digital services, broadband coverage will be extended to remote areas and faster internet connection will be ensured. In partnership with ITU, **FAO** published national and regional country assessments in 2019, providing a detailed overview of the “**Status of Digital Agriculture in 18 Countries of Europe and Central Asia**”. The publication concretely identified the required building blocks to create an enabling environment for the use of e-agriculture solutions at the country-level. This will allow to bridge the rural and gender digital divides by making ICT solutions accessible, affordable, appropriate, adaptable and actionable, overcoming challenges related to connectivity, excessive costs, lack of confidence and trust in the use of ICTs through the formation of multi-stakeholders partnerships and enhanced people-centered participation. **FAO** also joined forces with ITU to launch the call “**Digital Excellence in Agriculture in Europe and Central Asia**”, aiming at collecting good practices in the field of digital agriculture and providing a mechanism for identifying proven solutions, outstanding initiatives, and successful projects within the domain of e-agriculture (involving use of Big Data, Blockchain, Drones) to be scaled up across the Regions. According to **FAO’s** mandate and key priorities, a conducive environment for digital agriculture requires the expansion and improvement of infrastructure - both for ICT and in the agriculture domain, increased awareness and knowledge sharing, improvements in people’s ability to use internet effectively so that they benefit from digitalization, design and implementation of a regulatory framework that is both conducive to digitalization and takes into account the specificities and risks digitalization entails.

#### 4) Main outcomes highlighting the following:

##### I. Debated Issues

- Please capture highlights of the main issues discussed and interactions with audience
  - The COVID-19 pandemic highlighted the fundamental requirement of ensuring universal access to ICT-based tools and digital platforms for continuity of work, education, prompt response to urgent health-related priorities and needs.
  - In order to exploit ICT solutions' full potential, no one should be left behind. Digital tools and services must be accessible, and gender neutrality is to be applied as core principle to support women and girls' participation in the tech sector, female full engagement in the study of STEM subjects and active contribution to digital innovation.
  - Considering the importance of ensuring children and youth's full participation in education at all levels, the introduction of digital solutions to allow continuity of schooling fell under governments and education institutions' most relevant priorities to foster universal access to quality education (SDG 4), despite social distancing measures and country-based pandemic restrictions currently in place.
  - Accelerating the development of safe, inclusive and people-centered digital health services constitutes a fundamental objective of national health systems to respond to the COVID-19 pandemic through the adoption of scalable, smart and up-to-date digital solutions in the health domain, facilitating registration, access and use of ICT-based tools and platforms to ensure quality preventive care and development of a digitally capable health workforce.
  - Governments, UN agencies, Civil Society Organizations and all stakeholders participating in the business sector are called to support Small and Medium Size Enterprises (SMEs) through public and private investments to increase SMEs' capacity to innovate, scale up their business platforms, and boost their potential to create new jobs and become key players in the global economy.
  - Use, access and large-scale deployment of electronic business solutions ensure trade facilitation through the adoption of multi-stakeholder, cross-border and paperless digital solutions.
  - Data and information sharing devices constitute important and functional tools to forecast weather and climate occurrences on a global scale, providing users with advanced access to diverse water and climate information to be related to multiple socioeconomic contexts.
  - Considering rural areas limited capacity in terms of high-speed internet connection and available broadband infrastructure, investments should be directed to rural villages to bridge the existing urban-rural, gender and digital divides (triple divide) and equip remote areas with digital tools and broadband infrastructure.

- Please highlight key achievements and challenges shared by the audience and/or panelists
  - The UN System joined efforts to support advancements in digitalization and digitization processes in Europe and Central Asia and ensure the achievement of the WSIS Action Lines and the 17 SDGs through ICTs by 2030.
  - Strengthening existing networks of women and enhancing women's engagement in the digital sector will nurture a culture of gender equality and ensure that gender mainstreaming becomes an integral component of national policies, political processes, UN system initiatives and projects.
  - Development of digital platforms for education and enhanced availability of online learning materials constituted important reforms of traditional school curricula to ensure universal access to quality education for all children and youth in the midst of the COVID-19 pandemic.
  - Policy guidance and technical expertise to countries on the safety and efficacy of digital health solutions, preserving equity, gender equality and human rights as core values of their development and deployment represent fundamental steps towards full adoption of e-health tools and platforms, ensuring smooth transition to more resilient, adaptable and well-equipped national health systems.
  - Governments must support companies of all size and from all sectors through increased public investments and the creation of enabling regulatory and policy frameworks to enhance innovation of SMEs, start-ups, and national businesses.
  - To respond to the COVID-19 pandemic, the UN System joined forces and embraced a multi-agency approach, introducing practices for multi-modal data exchange harmonization to facilitate a seamless flow of information along the trade supply chain.
  - Strengthened globalization and cross-country data exchanges are fundamental to ensure precise, timely and comprehensive international meteorological forecasts through the use of ICT-based tools and digital solutions to enhance digital interconnections between national meteorological stations.
  - Extended broadband coverage, enhanced trust in the use of adaptable, affordable and actionable digital solutions and public-private investments should be supported to faster internet connection and promote local access to ICT-based tools and platforms in rural areas.

## II. Quotes

- Please provide two important quotes from the session and the names & organization of the person you are quoting
  - “Gender mainstreaming should become an integral component of all national policies, political processes, country-based projects and long-term strategies. Gender neutral access to ICT-based tools and platforms should be ensured through strengthened inter-agency collaboration to foster enhanced participation of women and girls in the digital sector and bridge the existing gender digital divide”.  
-**Ms. Nargis Azizova**, Intergovernmental Partnership, Normative and Knowledge Management Specialist, representing **UN Women Regional Office for Europe and Central Asia**.
  - “Digital solutions and the use of data can connect the most developed and the least developed countries, creating a common ground of exchanges and mutual interoperability frameworks to enhance the use of digital tools and platforms”.  
-**Mr. Milan Dacic**, Representative for Europe at **WMO**.

### III. Overall outcomes of the session highlighting

- main conclusions reached during the discussion
  - The mandate of the UN Digital Transformation Group for Europe and Central Asia corresponds to the adoption of a one “UN approach” to foster digitalization and digitization processes in the Regions and advance multi-stakeholder and cross-sectoral cooperation in the digital domain.
  - UN Women works towards achievement of SDG 5 (“gender equality”). To nurture a culture of gender inclusion, women and girls should become active players in the tech sector, learning STEM subjects and bringing their unique perspective to all innovation processes.
  - Equipping every child and youth with digital skills will allow them to be fully prepared to face the future, particularly through this time of change and political instability. UNICEF’s Learning Passport initiative facilitates students, parents and educators access and use of e-learning tools and online learning materials to ensure continuity of education over the course of the pandemic.
  - As highlighted by WHO initiatives and projects, e-health solutions lead to the creation of reliable, timely, high quality and affordable health information systems, promoting continuous medical training,

education, and research through the use of ICTs and accelerating the development of safe, inclusive and people-centered digital health services.

- The activities of UNIDO provide multiple stakeholders with powerful tools to advance industrialization, ensuring economic and social recovery and promoting sustainable industrial development through ICT-based solutions great potential of fostering advancements brought about by the Forth Industrial Revolution.
  - UNECE efforts towards harmonization and standardization of electronic equivalents of documents and data respond to the current need of limiting person-to-person contacts in international transport, logistics and trade supply chains through cross-sectoral application of ICT solutions.
  - Constituting an open ecosystem of tools, applications and services and allowing all information providers to manage, publish and share their meteorological data, WMO “WIS 2.0” initiative secures real-time incident-handling and response through the introduction of reliable and precise ICT applications in the domains of climate and weather forecasts.
  - Having assessed the status of digital agriculture in Europe and Central Asia, FAO encourages stakeholders to scale-up digital solutions in the agricultural sector, sharing good practices and creating an enabling environment for digital transformation in the Regions, viewing e-agriculture as an important means to close the digital, rural and gender divides.
- the vision for implementation of WSIS Action lines beyond 2015
    - The UN Digital Transformation Group for Europe and Central Asia will continue its cooperative work with Member States through enhanced UN system coordination in the field of digital transformation. Guided by all WSIS Action Lines, it will further promote UN support to country-level implementation of the 2030 Agenda through ICTs, strengthening information sharing on activities of the UN System in the Regions, and providing advice to the work of the Issues Based Coalitions and the Regional Knowledge Hub. Through its activities, the Group will underscore the fundamental role of adopting a multi-agency and multi-stakeholder approach as an urgent cross-cutting priority to enhance the use of digital solutions as enablers for building back better after COVID-19 and ensuring economic and social development at national and regional levels.

## **5) Main linkages with the Sustainable Development Goals (please specify the SDGs)**

**SDG 1** (“no poverty”), **SDG 2** (“zero hunger”), **SDG 3** (“good health and well-being), **SDG 4** (“quality education”), **SDG 5** (“gender equality”), **SDG 6** (“clean water and sanitation”), **SDG 7** (“affordable and clean energy”), **SDG 8** (“decent work and economic growth”), **SDG 9** (“industry, innovation and infrastructure”), **SDG 10** (“reduced inequalities”), **SDG 11** (“sustainable cities and communities”), **SDG 12** (“responsible consumption and production”), **SDG 13** (“climate action”), **SDG 14** (“life below water”), **SDG 15** (“life on land”), **SDG 16** (“peace, justice and strong institutions”), **SDG 17** (“partnerships for the goals”).

## **6) Emerging Trends related to WSIS Action Lines identified during the meeting**

- Creating more inclusive digital societies and fostering participation of women and girls in the digital sector will nurture a culture of gender equality, ensuring successful achievement of **WSIS Action Line C4**.
- Equipping every child and youth with digital skills will allow them to be fully prepared to face the future, confronting successfully with an increasingly digitalized world and fostering the achievement of **WSIS Action Lines C3, C4 and C5**.
- Advancing digitalization in the health sector and introducing e-health solutions will foster achievement of **WSIS Action Line C7 – e-health**, reaffirming the requirement of creating reliable, timely, high quality and affordable health information systems.
- Creating an enabling environment to foster entrepreneurship, introducing e-business solutions to enhance sustainable industrial development and strengthening international and regional cooperation in the digital domain will lead to successful implementation and achievement of **WSIS Action Lines C6, C7 – e-business and C11**.
- The use of e-applications for comprehensive cross-border information sharing and the enhancement of international and regional trade is in conformity with the underlying objectives of **WSIS Action Lines C3, C7 – e-business and C11**.
- Securing real-time incident-handling and response through the introduction of reliable and precise ICT applications for climate and weather forecasts aligns with **WSIS Action Lines C5 and C7 – e-environment**.
- The introduction of digital applications in the agricultural sector will foster achievement of **WSIS Action Line C7 – e-agriculture**.





## Disaster Risk Reduction media hub

**Workshop Name:** Disaster Risk Reduction media hub

**Workshop Link:** <https://www.itu.int/net4/wsis/forum/2021/Agenda/Session/417>

**Organization:** UNDRR/WMO/WBU/ITU

**Date:** Monday, 26 April 2021

### 1) Relevance with the WSIS Action Lines – please specify the Action Lines C1 to C11

WSIS action line C3 (access to information and knowledge)

WSIS action line C4 (capacity building)

WSIS action line C7 (e-environment)

### 2) Did your workshop highlight any issues related to COVID-19? If yes, please explain.

Yes, but indirectly. The experience debated during the HLD, was originally conceived as an “in person” training. But the rise of the pandemic obliged partners organizations to change plans on the run. A Moodle platform was set up to support hybrid courses or fully on-line courses according to the sanitary situation of the country. This unexpected obstacle delayed the beginning of the project and partially affected the quality of the expected interaction at the country level.

### 3) Key achievements, announcements, launches, agreements, and commitments

UNDRR and WBU, in partnership with ITU and WMO, and with the support of USAID Bureau for Humanitarian Assistance (BHA) and of the Tsunami Fund, launched, at the end of 2020, a joint project called “**Media Saves Lives**”. This a concrete example of what can be done when International organizations and Media work together to protect citizens and enhance resilience to Disasters.

### 4) Main outcomes highlighting the following:

#### I. Debated Issues

*Please capture highlights of the main issues discussed:*

The session emphasized the role and capacity of TV and radio technologies as the most trusted sources of information and highlighted the crucial role that broadcast media

organizations play in the early warning chain so they can deliver accurate and timely early warning messages to end users before disasters strike.

The panel discussions further examined the importance of having access to safety information early enough and prior to a disaster and the critical role that information and communications technologies play in delivering early warnings and alerts. It was also recognized that collaborative efforts made by different agencies and stakeholders can accelerate action for saving lives and livelihoods.

## II. Quotes

*Please provide two important quotes from the session and the names & organisation of the person you are quoting:*

**Ricardo Mena**, Director, UN Office for Disaster Risk Reduction emphasized that community affectation figures from extreme events have decreased thanks to the implementation of early warning systems and early action initiatives. Different examples were mentioned by **Denis Mc Clean**, head of communication, UN Office for Disaster Risk Reduction DRR, on how communities have reacted positively thanks to timely information provided by media that allowed evacuation to safe places prior to the emergency, so that there were no victims in the aftermath of the crisis.

**Stephen Breaux**, Deputy Director, Telecommunication Development Bureau, International Telecommunication Union (ITU) highlighted that connectivity is key for early warnings and that it is critical and urgent that to work together to support the deployment of resilient ICT infrastructure and reduce the connectivity gap to make citizens and communities more resilient to disasters and other emergencies. It was also emphasized that to be effective, early warning systems need to actively involve people and communities at risk from a range of hazards, facilitate public education and awareness of risks, disseminate messages and warnings efficiently and ensure that there is a constant state of preparedness so that early action is enabled.

**Natalia Ilieva**, Director of Cooperation at Asia-Pacific Broadcasting Union (ABU) on behalf of WBU explained that the Media Saving Lives Initiative, composed of different phases, is a unique collaboration between organizations to break the silos in which stakeholders often work and secure through media the flow of life-saving information. The main goal of the initiative is to provide reliable information in a timely manner, including training to the use of CAP (Common alert protocol) and of EWS (Early warning system) tools. It was mentioned that during the first phase, 47 media organizations have been engaged with very positive results of collaboration to secure communications, early warnings and joint early action, across three regions: Caribe, Asia-Pacific and Africa.

**Johan Stander**, Director of the Services Department, World Meteorological Organization (WMO) remembered that 2020 has been an unprecedented year for people and the planet with a global pandemic, rising temperatures, increased concentration of carbon dioxide as well as high impact events, which have severely affected populations. According to **Cyrille Honoré** -Director, Disaster Risk Reduction and Public Services Branch (WMO)- in order to guarantee DRR cooperation and common efforts of almost every sector and media are the best agent to inform and educate the public on the issues of climate change including how it affects all aspects of human life and its role in human conflict, increased weather hazards, risk impacts on food security etc.

## III. Overall outcomes of the session highlighting

### *main conclusions reached during the discussion*

All the four organizations participating to the HLD renewed their commitment on DRR – Disaster Risk Reduction common plans also for the years to come.

Project “Media saving lives” will continue with phase 2 (second half of 2021) and is planned to continue until 2023, with the aim to reach media organizations in all the 100 countries exposed at the risks of climate change.

### *the vision for implementation of WSIS Action lines beyond 2015*

The four organizations –at the end of the session- announced their engagement to support the Call for action for the adoption of CAP (Common Alert Protocol) by all governments and media of the world <sup>1</sup> as part of their commitment to save lives during disaster events.

## **5) Main linkages with the Sustainable Development Goals (please specify the SDGs)**

### **Relevance with the SDGs:**

The complex of actions towards a better DRR using ICT tools has an impact on numerous SDG. The most evident one is SDG 13) Climate action, because most of the DRR activities are related to disasters related to climate change.

But also has an impact on SDG 4) Quality education

5) Gender equality , because many actions are based on women empowerment;

9) Innovation and infrastructure

and ,last but not least, 11) Sustainable cities and communities

## **6) Emerging Trends related to WSIS Action Lines identified during the meeting**

The 4 institutions represented in the panel (UNDRR, ITU-D, WMO and WBU) closed the HLD announcing a call for action towards a generalized adoption of CAP (Common Alert Protocol) for preventing and risk reduction of future natural disasters. This would be an action that will have an impact on WSIS action line C3 (access to information and knowledge) and WSIS action line C4 (capacity building).

## **7) Suggestions for Thematic Aspects that might be included in the WSIS Forum 2022**

Monitoring the results of the “Disaster Risk Reduction media hub” initiative and of the call for action in favor of CAP during WSIS 2022 would be very useful, in order to check if announcements will be followed by action on the field. Especially because next WSIS will just

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1 <https://public.wmo.int/en/media/news/wmo-joins-emergency-alerting-call-action>

<https://preparecenter.org/site/ifrcalerthubinitiative/call-to-action-on-emergency-alerting/>

arrive at the eve of the next Global Platform 2022 for DRR, expected to take place in May next year.

## ICTs and Innovative Education on Sustainable Development Goals

**Workshop Name:** ICTs and Innovative Education on Sustainable Development Goals

**Workshop Link:** <https://www.itu.int/net4/wsis/forum/2021/Agenda/Session/339>

**Organization:** Geneva-Tsinghua Initiative (GTI)

**Date:** Tuesday, 27 April 2021

### 1) please specify the Action Lines C1 to C11

Through this e-learning (C7) workshop, we facilitated discussions about opportunities and challenges to provide information and knowledge about SDGs (C3) through innovative use of ICTs. The panelists are also expected to present their collaboration with local communities and international stakeholders (C1) and share hands-on approaches that foster social innovation and international cooperation (C11).

### 2) Did your workshop highlight any issues related to COVID-19? If yes, please explain.

Yes. The pandemic presents both enormous challenges and tremendous opportunities for reaching the 2030 Agenda and promoting the education of Sustainable Development Goals (SDGs). Never before have we realized the significance of ICTs in enabling SDGs education to the public in a more accessible, inclusive, and innovative way. UNSSC has changed their training methods to 100% online, which used to be about 90% face-to-face courses. The Global MOOC Alliance also launched the Global Massive Open Online Challenge 2021 in COVID-19 period to encourage hands-on learning and open collaboration remotely to help address the UN Sustainable Development Goals locally. This workshop is proposed to showcase how the international community leverage ICTs in line with education on SDGs and contribute to building back better after the pandemic.

### 3) Key achievements, announcements, launches, agreements, and commitments

These five projects showcased in the workshop demonstrate their efforts and experiences in the following aspects:

- Launching courses related to sustainable development
- Organizing SDG-related activities and workshops
- Curating exhibitions and art installations
- Encouraging local initiatives pertaining to SDG

### 4) Main outcomes highlighting the following:

#### I. Debated Issues

- Please capture highlights of the main issues discussed and interactions with audience

The audiences are eager to know how to facilitate better understanding about the complexities of SDGs in different contexts and how to evaluate outcomes of ICT-based education.

- Please highlight key achievements and challenges shared by the audience and/or panelists.
  - Panelists believe that there is more than we can do to further their concept, enhance their understanding, and establish the Sustainable Development empowerment scenario from a global perspective. Panelists tried to promote the awareness and practice of SDGs among young people through joined innovative activities, global initiatives, and youth community on the basis of localization.
  - Panelists are constantly thinking about how to measure impact which has been sometimes quite challenging because quantitative data are more difficult to obtain than the qualitative one, and it is important to see what the real change is and decide how to improve the processes design further. Meanwhile, it is stated that quantitative and mixed mechanisms, long-term tracking, knowledge transfer, demonstration and sharing are future directions.

## II. Quotes

- Please provide two important quotes from the session and the names & organisation of the person you are quoting
  - Dr. Philippe Bertrand, BeAnotherLab
  - *“The archive of your stories (is to) let participants to step into the shoes of inhabitants of the favelas that had their children executed by police forces, paramilitary expert and military groups in Colombia, migrants in Europe, or a transgender man talking about love or someone facing prejudices because of their religion.”*
  - Mr. Enoch Wong, Global MOOC Alliance
  - *“The year-long Challenge is a global competition for students, which requires massive creativity, encourages open collaboration, and offers learning through online courses to help address the UN sustainable development goals locally.”*
  - Ms. Peilin (Blair) Chen, Shimmer SDGs Hub
  - *“The sustainable development becomes the new normal in the next generation, so we really focus on promoting our concepts in the youth of mainland China and we want to make them see more of the world and more understand on sustainable development, (which) is not just about 17 SDG goals (but) about changing your lifestyle, the industrialized system and the new concept.”*
  - Dr. Jennifer Williams, TeachSDGs
  - *“With technology we started to find ways to have our students connect with classrooms from different parts of the world, so we were able to connect, travel abroad and take our students to places like Beijing, Spain, and Russia, and we're finding that those are some of the richest experiences for students.”*
  - Mr. Patrick van Weerelt, UNSSC

*“Sustainable development is not a linear process, it is about understanding and navigating complexities. And it is about understanding synergies and tradeoffs while also considering the needs and impacts across boundaries and across generations. So it's a complex matter, and we should really reflect on it deeply.”*

### **III. Overall outcomes of the session highlighting**

- main conclusions reached during the discussion

The Sustainable Development Goals (SDGs) were set in 2015 by the United Nations General Assembly and are intended to be achieved by the year 2030, with a collection of 17 interlinked global goals designed to be a “shared blueprint for peace and prosperity for people and the planet, now and into the future”. To promote the understanding of Agenda 2030 by the global community, especially for the youth, great importance has been attached to the education on SDGs by leveraging ICTs. The global pandemic has transformed the offline education to online education, which also requires ICT innovation to attain the educational purpose pertaining the SDGs.

Our generation has a responsibility to fully engaging in the sustainable transformation, which requires a coherent vision of sustainable development and increasing participation from the globe. Among all of the existing solutions, ICT technology plays a great role to attaining the SDGs for education by enabling a transformative, interactive, and learner-centered education system. Different organizations have shown their commitments and innovations: using XR technology to enable body swaps for a more empathic society, launching global online competition to encourage SDG-related initiatives, setting up platform to promote social innovation and SDG education for youth, establishing online K-12 classrooms to offer open and accessible resources aligned to the Sustainable Development Goals, and providing inter-agency training for staff of the United Nations system. Through leveraging of ICTs, we speed up the information sharing, facilitate the cross-sector collaboration and enable more comprehensive understanding and collective actions toward the agenda 2030.

- the vision for implementation of WSIS Action lines beyond 2015

C1. The role of public governance authorities and all stakeholders in the promotion of ICTs for development

C2. Information and communication infrastructure

C3. Access to information and knowledge

C4. Capacity building

C6. Enabling environment

C7. ICT Applications: e-environment, and e-learning

C8. Cultural diversity and identity, linguistic diversity and local content



## C10 Ethical dimensions of the Information Society

### C11. International and regional cooperation

#### **5) Main linkages with the Sustainable Development Goals (please specify the SDGs)**

This session focuses on innovative use of ICTs in the field of SDG education (G4) through global partnerships and multi-stakeholder involvement (G17), to carry out hands-on activities in favor of inclusive quality education and promote sustainable societies (G16).

#### **6) Emerging Trends related to WSIS Action Lines identified during the meeting**

During the meeting we saw the increasing use of distant learning and emphasis on online-offline coordination in SDG-related education. The openness, accessibility, and inclusiveness of SDG education were also addressed during preparing online courses and organizing relative activities. The collaboration with local communities and international stakeholders was also recognized as one common key factor in providing ICT-related solutions. Finally, a realistic international performance evaluation and benchmarking (both qualitative and quantitative) are also needed for further development. All of them touch upon multiple WSIS Action Lines as described earlier.

#### **7) Suggestions for Thematic Aspects that might be included in the WSIS Forum 2022**

N/A

## Third Regional Consultative Meeting on Arab Digital Cooperation and Development - Consolidated Regional Policy Dialogue Platforms

**Workshop Name:** Third Regional Consultative Meeting on Arab Digital Cooperation and Development - Consolidated Regional Policy Dialogue Platforms

**Workshop Link:** <https://www.itu.int/net4/wsis/forum/2021/Agenda/Session/369>

**Organization:** The United Nations Economic and Social Commission for Western Asia & the League of Arab States

**Date:** Tuesday, 27 April 2021

### 1) **Relevance with the WSIS Action Lines – please specify the Action Lines C1 to C11**

The session highlighted the importance of multistakeholderism and multilateralism. It proposed the amalgamation of several events into one big conference that addresses and combines the two notions of digital cooperation and digital development, through the organization of the third Arab High-Level Forum on WSIS and 2030 agenda (known as AHLF or Arab WSIS) in conjunction with the 6<sup>th</sup> Arab IGF, in 2021, among others.

Within this context, the main WSIS action lines tackled in the session included C11 (International and regional cooperation) and C1, C2, C3, C4, C5, C6, C7.

### 2) **Did your workshop highlight any issues related to COVID-19? If yes, please explain.**

Many speakers noted that Covid-19 has changed the landscape and priorities worldwide and in the Arab region, and thus it is very relevant and timely to consider and learn from the covid-19 situation and best practices in the Middle East and elsewhere.

Speakers highlighted the need to come up with concrete proposals to bridge the digital divide due to the pandemic and to put together the appropriate legal framework and policies that can positively influence societies in the region.

### 3) **Key achievements, announcements, launches, agreements, and commitments**

Participants unanimously agreed to convene the third AHLF on WSIS and 2030 agenda in conjunction with the 6<sup>th</sup> Arab IGF in 2021 in one consolidated event entitled “Arab Digital Cooperation and Development Forum and Conference”.

The session drafted some ideas of the timeline and schedule and talked about the themes that should be included in this event with the integration of the Arab Digital Cooperation and Development Conference and Forum (ADCD-C&F) tracks and ICT4D topics.

It was agreed that the event will take place in late September beginning of October and will spread over 2 weeks in non-parallel sessions, at the rate of 2 sessions of 2 hours each per day.

The speakers stressed the importance of selecting attractive and relevant topics, and to be innovative in the way of putting everything together. Ideas included reaching out to youth and entrepreneurs to be involved in the event.

The event will be as a pilot for a mega conference in 2022 and will show that the Arab region can consolidate the existing different tracks and bridge silos.

It is expected that the proposed event will include a track for policy debate around parts of the Arab Digital Agenda/ICT Strategy which concluded its first phase end of March 2021. A final decision in this regard will be taken by the chairmanship of the Arab working group on the Arab ICT strategy, as the custodian of this project from the government side. The Arab digital agenda/Arab ICT Strategy (ADAICTS) being a collective regional product where several national partners and regional and international organizations come together to harness ICTs to implement the 2030 Agenda at the regional level.

Participants agreed to form an efficient special small balanced taskforce of a limited members to work in a fast and organized way during the nine coming weeks to make sure the Arab IGF-6 is organized at the proposed time.

A call for commitments was launched to join the taskforce and to also mobilize sponsors from the business sector and others, to ensure the publicity of the event on social media and through live webcasting, etc.

Many participants have already committed to be part of the taskforce. Others are welcome to join and send their additional ideas to ESCWA if any before end of the week, i.e. by 30 April 2021.

#### **4) Main outcomes highlighting the following:**

##### **a. Debated Issues**

Although the Tunis Agenda gave birth of the IGF as an independent process that is “umbilically corded” with WSIS. Annual WSIS and IGF are being held separately, with certain WSIS organizational groups, and another IGF organizational groups. But in the Arab region, ESCWA and its partners see that it is wise to test the consolidation of the two tracks.

The debate during the session run around the proposition of piloting the concept of consolidation, timing, formatting and running the existing Arab WSIS and the Arab IGF tracks under the suggested name of Arab Digital Cooperation and Development - Consolidated Regional Policy Dialogue Platforms as follows:

A.1 The idea of consolidation under ADCD C&F following UNSG.

A.2 Time aspect of the event:

A.2.i Spreading/condensing (duration of the event proposed 2-3 weeks Sept-Oct)

A.2.ii Whether it should be parallel or not

B.1 IGF as Track in ADCD sphere

B.2 IGF preparatory modality

Participants in the session had the opportunity to engage and present their views on the best approach / framework to formally converge and consolidate the different processes into one unified enhanced digital cooperation and development platform and framework, as well as on the operational modalities to organize such a mega event in due time, with the ultimate goal to optimize the multi-stakeholders dialogue, strengthen the Arab region voice in relevant regional and international fora, and achieve the desired positive impact for inclusive digital transformation and sustainable development in the Arab region that leaves no one behind.

Some speakers questioned the long period of implementing the event as it will drop the attention of the audience. However, after some discussion and clarification it was suggested that to not take the Arab IGF in specific to more than 2-3 days but the whole event can be split into 2 weeks.

After a short introduction by Mr. Juraj on ESCWA's various activities and services to Member States, he reiterated ESCWA's readiness to support the digital development in the Arab States in close cooperation with experts and policymakers active in the region.

Mr. Ayman Elsherbiny then presented a refresher on several successful flagship events and products that had the footprint of many partners, exhibiting how the congregation of all stakeholders materialized and how communities were engaged in the different activities. Within that spirit, he presented the proposition for convening the "3<sup>rd</sup> AHLF on WSIS & 2030 Agenda" in conjunction with the "Sixth Arab IGF" in 2021 as pilot for the intended "Arab Digital Cooperation & Development Forum and Conference", then opened the floor to get the views of the WSIS and IGF communities on the proposition.

#### **b. Quotes**

**Mr. Juraj Riecan, ESCWA:** ESCWA is here to support the digital development in the Arab States and happy to pool efforts and work closely with partners from different regional and international organizations and government entities to undertake successfully this extensive program and bring forward the process of digital development in the Arab region.

**Mr. Ayman Elsherbiny, ESCWA:** ESCWA's attention to information society that started in 2002-2003 has now manifested in "Advancing Digital Cooperation and Development Arab States Action Programme" (ADCD-ASAP). The program is multi project setting encompassing eight pillars among them the Arab Digital Development Conference, which is the topic that ESCWA is trying to shape through online consultations, including today's session. In fact, this is an amalgamation of the Arab WSIS, Arab e-government Council and potentially other activities related to ESCWA's main partners, ITU RDF, UNESCO related tracks on information society, etc. ESCWA flagships include the Arab Digital Development Report (ADDR), the 2030 horizon series on digital technologies, a website on information society and digital economy, the Arab IGF and the Arab WSIS, and the latest product that ESCWA is working on jointly with the League of Arab States, aspiring to develop the Arab digital agenda/Arab ICT Strategy (ADAICTS) during the year of 2021. The first phase of ADAICTS has just concluded, and the adoption will be at the end of the year in December hopefully and the launch in the first quarter of 2022."

#### **Views of the IGF community**

**Mr. Karim Abdelghani, ITU:** This event is quite timely, particularly because of the ongoing efforts to develop the Arab Digital Agenda/ICT Strategy. A semi-final version is expected to be discussed using this platform before its hopefully adoption in December 2021. ITU values very

much the collaboration with ESCWA on different levels and supports the suggestion to not have parallel sessions. But the details will have to be worked out later. 2 weeks seem sensible, but the picture will be clearer once commitments from different stakeholders on the type of sessions that they want to organize during this forum are clear.

**Mr. Paul Hector, UNESCO:** This is a very important event for UNESCO who works on six of the WSIS action lines. Happy to participate and to endorse the proposition regarding the duration, timing and not having parallel sessions, as very often there is a lot of interest in many issues and that type of proposal format gives people more flexibility in terms of attendance. It is important to look at how to extend the reach of what is done beyond the traditional stakeholders, and it is really a great opportunity, having greater inputs from civil society and some other non-traditional partners within WSIS.

In terms of the timing, this is opportune since UNESCO General Conference is taking place this year with several issues related to many of the technology tracks. UNESCO will be discussing with Member States, later in the year, a recommendation on the ethics of artificial intelligence. In several countries, UNESCO is currently doing studies on the UNESCO Internet universality indicators, and these are basically a set of indicators which help governments, nations and other stakeholders to better assess how the Internet within the countries is serving the developmental agenda and, of course, looking at ways to improve. UNESCO also currently has work going on in Tunisia, Sudan, Palestine and is starting work in Jordan. This time is wonderful as it will give UNESCO an opportunity to bring and share some of its work with the many stakeholders and also get feedback. UNESCO looks forward to sharing this work in this platform.

**Mr. Nawar Alawa, ESCWA:** The integration of the current Arab e-government council track inside the Arab WSIS design and the new upcoming event is a good idea. The Arab e-government Council was launched by ESCWA in 2013 to enhance the regional coordination among policymakers in digital transformation, e-government and digital government. The meeting is held every year. Eight meetings have taken place till now and hopefully the meeting number nine will be conducted in the upcoming consolidated event. Having it with AHLF 2021 will be a real success building on the success of the latest AHLF 2019. GEMS initiative was launched during one of the e-government directors' meetings. It stands for government electronic and mobile service maturity index and GEMS was issued officially twice, the latest one was in 2020 and the report is published on ESCWA's website.

#### **Views of the IGF community**

IGF community presented their thoughts on the theme, viability and operational modalities of the sixth Arab IGF as one of the tracks being run within the sphere of the Arab digital cooperation and development forum of ADCD.

**Mr. Khaled Wally, LAS:** The idea of consolidation is a very good idea. LAS is looking forward to cooperating with ESCWA and all partners to finalize the final agenda and final timing for these events as most of us have some obligations during the suggested period, but the question is why not to have the Arab IGF and the WSIS run in parallel during the same period?

**Mr. Hisham Aboulyazed, NTRA-Egypt:** We have seen many innovations in how several regional IGFs and national IGFs have been organized in the last two years, starting from the global IGF to the regional IGF, as well as the national. So, the general understanding and take out from those experiences, is that IGF by its nature, is a flexible structure, which gives it the agility to

reshape the way it is presenting its value and conducting its work. So, there could be a good value for the community to have such a cluster approach. From the comments of several organizations and speakers, the key value here is interconnectedness between several tracks. Of course, the preparatory work and some of the procedures of each of the processes will stay distinct with the action line owners or coordinators or facilitators, but there is a great value for the Arab IGF here to propose add and to take out for his community as well.

For the themes, the current situation has put different lights on some of the traditional topics. The digital divide and connectivity has for long been one of the focus areas for the IGF community, but in the last year, it has given it a very different perspective. I'm glad that we are seeing the linkage with the goals of 2030. It is relevant here to highlight the recommendation from the High-Level Panel on digital cooperation to have the universal connectivity goal by 2030, which in many development discussions, many actually consider that as the 18<sup>th</sup> SDG target. So, I think it would be very relevant for the Arab IGF especially this year to address the digital divide from that perspective and to link that with the roadmap by the Secretary General”.

**Mr. Charles Shaban – AGIP, Chair of the Arab AMPAC IGF-5:** “I totally agree with having the sixth Arab IGF as part of the bigger event ADCD, so we can make sure it is financially supported to continue yearly and make use of the experience and participation of all attendees. The fastest way to organize it is to form a smaller team, who is ready to put the needed time. ESCWA, LAS and the other partners can discuss and form this team, and I think it can be done this year, and in September as part of the ADCD as needed”.

**Ms. Hanane Boujemi, vice Chair Arab IGF AMPAC, Morocco:** “I commend the strategic thinking of ESCWA in getting everybody on the same table. Amalgamating and cross cutting all activities to avoid silos is very much needed. I support the plan, the vision, and the implementation should include all people. We need to capitalize on what happened during Covid-19 to understand what the key stakeholders, including the technical community, the infrastructure people, are doing at the level of the Middle East, then we can move to the policy level. We can round up all the challenges that we face and the opportunities, because we have managed to cross an important path with regard to the uptake of technology in the Middle East, and the whole circumstance affected it. Holding the Arab IGF in September, is a good idea.

With regards to the taskforce, we need to move to the key topics that are relevant to the region and choose people who are working day to day on those specific topics to lead us and guide us through the discussion, make each stakeholder entity that is champion in the process, responsible for a key issue. The sessions need to be punchy, to the point, hoping to influence policy to some extent in the context of the Middle East. This is an opportune moment to engage with governments as they are the way, they are implementing, uptaking and changing things, having digital strategies. Now is the time that we all get together in one place to achieve these objectives”.

**Mr. Chafic Chaya, RIPE NCC** “I refer to the UN High Level Panel on digital cooperation who called our age the age of cyber interdependence. This means no government and no stakeholder can act alone on internet related issues and technical problems that are interlinked. The big challenge for any dialogue platform is to find a way to organize an inclusive transparent bottom-up policymaking process at the regional level, that combine governments and innovative stakeholders to tackle the inter-linked problems and internet issues. We can

have scenarios from the worst to the best-case scenario, and we have learned lessons from the Arab IGF. We support the IGF model and the consolidation of the Arab meetings and events under an innovative dialogue platform whatever is called, but within the values of inclusiveness, transparency and multi-stakeholder approach, while recognizing the main challenges such as the lack of complete outcomes of these meetings and the active participation of the High-Level policy makers and industry representatives. I believe, whatever the concept will be, the DNA of this dialogue platform should be to share, should be multi-stakeholders because this will lead to a win-win situation”.

**Ms. Zeina Bou Harb, OGERO, Lebanon:** The IGF 2021 focuses on economic and social inclusion and human rights, universal access and meaningful connectivity, emerging and cross-cutting issue areas including emerging regulations, market structure, content, data and consumer, users rights regulations, environmental sustainability and climate change, inclusive internet governance ecosystems and digital cooperation; I fully support the consolidated approach and the specialized taskforce, but we have really to act very quickly, because we don't have much time. I propose to schedule immediately, a meeting for the team to work on the plan of the Arab IGF. On the other hand, I would like to point out that the NRIs are all invited to hold a session back to back with the UN IGF during December, maybe this also should be considered when we plan our event. I'm ready to help with the taskforce”.

**Ms. Mirna El Hajj Barbar, ESCWA:** “I fully support the consolidation format towards digital cooperation in the Arab region, and I also support the way we need to expedite work towards holding the Arab IGF 6 during last week of September or the first week of October through a special taskforce. We need to work on the composition and representativity inside the special taskforce to have a balanced representation of multi-stakeholders’ categories. ESCWA is ready to help on that from within the AMPAC members and experts and ready to work with the task force itself to put a good scientific substantive agenda for the Arab IGF as well as for all the other tracks in which ESCWA is involved, including the digital development track and the track of the Arab digital Agenda /Arab ICT strategy and others”.

**Mr. Ayman Elsherbiny, ESCWA:** “we need real commitments by all, because this challenge is heavier than the previous ones. ESCWA counts on people who are intensively active for nine weeks for the taskforce, after Eid till end of July”.

**Mr. Hosein Badran, Internet Society:** “I welcome the proposed consolidated approach. It is a good way forward to capitalize on all the other activities that are happening as part of ADCD and would be a good way to move forward as well in forthcoming years”.

Spreading the sessions is better than collapsing them into one or two days, because people have now zoom fatigue and it's difficult to stay online for three four hours consecutive, so not more than two hours per day and whatever number of sessions sound just good. Make sure to picking current attractive and meaningful topics to the Multi stakeholder audience that we are targeting including governments, civil society, technical community, and academia for better impact”.

**Mr. Ibaa Oueichek, Expert:** “It is a great idea to have the IGF handled within the consolidated platform. Over spreading it over a very long period would result in a less or drop of attention. The whole event is okay but do not take the Arab IGF over 2-3 weeks. The taskforce is needed as there is no much time left”.

**Mr. Haidar Fraihat, ESCWA:** “Governing the Internet in a proper way, in a multi stakeholder fashion, is very important to avoid getting the region into more crisis. The work on IGF will prevent or mitigate problems that might arise in the future. I congratulate everyone for insisting on making this possible and the continuation of this work”.

**Ms. Christine Arida, NTRA, Egypt:** “I support the consolidation. it is a golden opportunity for the Arab IGF to take the chance to open up to new stakeholders and this is something that is happening worldwide. We have to come in and make this circle of internet governance community go beyond and tackle the topics that are now more than ever important especially in our region. We need to be innovative if we want to consolidate and do something different.”

**Mr. Faysal Bayouli, Ministry of communication & Information Technology, Tunisia** “The proposition to consolidate the events is a good idea, and it will give more visibility of the Arab IGF”.

### **c. Overall outcomes of the session highlighting**

The consultative meeting is considered as the beginning of a series of consultations about consolidating platforms.

The key value of the proposed cluster approach is interconnectedness between several tracks, as has been highlighted in the comments of several organizations and speakers. It will show that the Arab region can consolidate the different tracks and bridge silos, which is a request of many of the WSIS and IGF communities.

The proposed consolidation is inspired from the UN secretary general’s global roadmap on digital cooperation which is highly centered around the IGF upgrade, or what is called the IGF+, and incarnates many of the ICT for Development that are taken for granted topics in the digital cooperation, but will not follow the exact structure of IGF.

The proposition of consolidating the different tracks in non-parallel sessions and one consolidated platform was unanimously endorsed by all to allow a hundred percent chance to participants to attend all sessions or selected ones of interest as deemed convenient.

ESCWA will reach out to AMPAC, LAS, ITU, NTRA Secretariat, TCWG, and new stakeholders to form the special taskforce and expedite the preparations for the event during the next six to nine weeks. All those interested in contributing to the event are welcome to contact ESCWA by the end of this week to get the proposition in the best ways and come up with a full-fledged agenda by end of April. The taskforce will look among others on embracing relevant attractive topics and be innovative in using good approaches with the Media, such as preparing some videos and consider live streaming, etc. for a special edition in such a transitional year, to simplify the organizational matters and the impact process.

LAS, ESCWA and the working group on the Arab ICT strategy will consider the possibility of using such an event to disclose parts of the Arab digital agenda for debate during the policy sessions of the Arab IGF/Arab WSIS. The session will be designed specifically to hear the stakeholders, business sector, civil society, technical community, on the ADAICTS semi-final version in October hopefully in preparation to its submission to the Arab Telecom Ministers in December 2021.

The NRIs are all invited to hold a session back-to-back with the Global IGF during December. This also should be considered when planning the event.



**5) Main linkages with the Sustainable Development Goals (please specify the SDGs)**

The session presented a refresher on the second AHLF on WSIS and the 2030 Agenda that took place in March 2019 as one track of the proposed consolidated platform. It considered the possibility of using the proposed consolidated platform to disclose parts of the Arab digital agenda/Arab ICT strategy (ADAICTS) and get the views of all stakeholders, business sector, civil society, technical community on its semi-final version, which is based on ESCWA's framework of 5 clusters centered around laws, economy, society, governmental transformation and culture, that covers simultaneously the WSIS action lines, intersecting mainly with SDG8, SDG9, SDG10, SDG16 &SDG17.

**6) Emerging Trends related to WSIS Action Lines identified during the meeting**

Participants highlighted the need to be innovative, going beyond to topics like AI.

**7) Suggestions for Thematic Aspects that might be included in the WSIS Forum 2022**

WSIS Forum 2022 may consider replicating ESCWA's proposed multi-track model to piloting the consolidation of existing regional and global digital cooperation and digital development tracks towards the establishment of a unified overarching Digital Cooperation and Digital Development Platform. The goal is to optimize and strengthen strategic multi-stakeholders' policy dialogues conveying the views and proposals of both the WSIS and IGF communities, with the aim to maximize the desired impact for inclusive digital transformation and sustainable development that leaves no one behind and help build forward better post covid-19.

## Children and the digital transformation of public services: The state of affairs

**Workshop Name:** Children and the digital transformation of public services: The state of affairs

**Workshop Link:** <https://www.itu.int/net4/wsis/forum/2021/Agenda/Session/317>

**Organization:** UNICEF/United Nation University Operating Unit on Policy-Driven Electronic Governance

**Date:** Tuesday, 27 April 2021

### 1) Relevance with the WSIS Action Lines – please specify the Action Lines C1 to C11

- a. C1: The role of governments and all stakeholders in the promotion of ICTs for development.
- b. C3: Access to information and knowledge
- c. C4: Capacity building
- d. C5: Building confidence and security in the use of ICTs
- e. C7: ICT applications: benefits in all aspects of life – E-government
- f. C11: International and regional cooperation

### 2) Did your workshop highlight any issues related to COVID-19? If yes, please explain.

Key highlights of the workshops include:

- (i) Government services are increasingly being carried out online and are benefiting children and their families especially during the COVID-19 pandemic;
- (ii) limited knowledge on how the digital transformation of public services impact children and their families even though more and more online services are being provided by governments;
- (iii) there are elements of the digital transformation of services that are being amplified even in the presence of the COVID-19 pandemic. Some of these elements are technology use in education, health and other social services. Other elements are increase in pace, literacy, etc., however, accessibility challenges have increased especially during the global COVID-19 pandemic.

Although not the core focus of the workshop, the global COVID-19 pandemic was as indicated reflected in various ways during the discussion of the state of digital transformation of services for children.

### 3) Key achievements, announcements, launches, agreements, and commitments

The workshop had 57 attendees (including Facebook feed/video views on the day of the workshop). There were also 5 panelists and 6 WSIS secretariat i.e. a total of 68 persons.

The workshop presented the results of the recently published report on “Government digital services and services and children: Pathways to digital transformation” (published in January 2021).

Conducted by UNICEF and UNU-EGOV and published in January 2021. The report is available on:

- UNICEF: <https://www.unicef.org/globalinsight/reports/government-services-and-children-pathways-digital-transformation>
- UNU Collection: <http://collections.unu.edu/view/UNU:7896>

Available on both the UNICEF and in the UNU Collections the report is to date has been viewed 636 times and downloaded 125 times from the UNU Collections.

#### **4) Main outcomes highlighting the following:**

##### **I. Debated Issues**

The main issues covered during the workshop and the discussion were generally on classical government services.

The main goal was to present the motivation, objective and state of affairs on digital governance services for children and to discuss the results of the study. Main discussions were on (a) little or no knowledge on the impact of digital services on children both in the literature and case studies; (b) how are authorities – (governments and other public sector authorities), addressing children in the digital services design.

The following was highlighted:

- (i) The use of digital technology seen as an enabler to change and is ultimately significant for children nowadays.
- (ii) There is a universal potential for digital government services but this does not necessarily specify or identify children and their needs as an explicit driver or driving force of digital services.
- (iii) Most publications and reports focused on cost efficiency and effectiveness of service delivery not minding whether the target audience is young or old.
- (iv) Some countries in the study have presented child relevant strategies but there is the persistence of implementation gap especially in education, health and social services.
- (v) Norm-setting institutions and donors played a major role in driving the general digital transformation agenda. More so, they played a huge role in driving the digital services for children, and child protection especially in emerging economies and low-income countries.
- (vi) All case countries recognized that digital governance and digital government needs for children are significant. These are in terms of data protection, privacy and security, and adhere to, or are planning appropriate standards.

- (vii) Unclear change management responsibilities between a lot of governments especially in middle-income and high-income countries, for example, Brazil and Sweden. Although ministries and sectorial ministries in these countries played a significant role, they lacked coordination.
- (viii) User engagement in digital services for design and testing was recognized across all five case study countries and across all the different stakeholders but it often tended to be the first thing that got cancelled or prioritized lower when budgets or timelines starts sliding in the actual IT projects. Therefore, there is need for improvement.
- (ix) Increased challenges for lower income countries for the provision of digital services such as internet access, identity management, digital skills, etc. The lower the income level of the country the less digital service availability for children and in general compared to high-income countries.

The key achievements and challenges outlined above was generally shared by all attendees including panellists.

## II. Quotes

**Quote 1.** *".....Brazilian experiences show the availability of high-quality data, segmented in relation to geographical, socio-economic and user-parameters is essential for targeted and knowledge-based decision making, not only to assist the marginalized and potentially digitally excluded families but children in particular...."* **Manuella Maia Ribeiro.** Coordinator of the Survey on the use of Information and Communication Technologies in the Brazilian Public Sector. NIC.br/Cetic.br (Brazil).

**Quote 2.** *".....the importance of the digital transformation is illustrated by an almost 50% increase in the current budget for Ghana's IT and eGovernment strategy....."* **Muhammad Rafiq Khan.** Chief, Child Protection. UNICEF, Ghana Country Office (Ghana).

**Quote 3.** *".....privacy, security and data protection need to continue to be at the foundation of any initiative of digital services as it is particularly important for children....."* **Jasmina Byrne.** Policy Chief, UNICEF, Office of Global Insight and Policy (USA).

**Quote 4.** *".....the economic motivator behind digital transformation of services is seen in most countries notwithstanding their GDP per capita or where they are located geographically...."* **Morten Meyerhoff Nielsen.** EGOV Adviser, United Nation University – EGOV (Portugal).

## III. Overall outcomes of the session highlighting

Refer to 4.1 above.

### 5) Main linkages with the Sustainable Development Goals (please specify the SDGs)

- a. Goal 1: End poverty in all its forms everywhere
- b. Goal 3: Ensure healthy lives and promote well-being for all
- c. Goal 4: Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all
- d. Goal 5: Achieve gender equality and empower all women and girls
- e. Goal 10: Reduce inequality within and among countries
- f. Goal 16: Promote just, peaceful and inclusive societies
- g. Goal 17: Revitalize the global partnership for sustainable development

**6) Emerging Trends related to WSIS Action Lines identified during the meeting**

Refer to 4.1 above.

**7) Suggestions for Thematic Aspects that might be included in the WSIS Forum 2022**

Measurement! Objectives of the SDGs and WSIS Action Lines are noteworthy and relevant but many are hard to monitor and measure as they are often qualitative in nature and the aims are not quantified.

May be worth considering minimizing the overlap individual SDGs and Action Lines are in a post-2030 context.

WSIS should continue bringing together multiple stakeholders to facilitate and help establish partnerships, not least for international and regional organisations.

## Global Trends in Assistive Technology: Emerging assistive technology, inclusive design, and accessibility features of mainstream products

**Workshop Name:** Global Trends in Assistive Technology: Emerging assistive technology, inclusive design and accessibility features of mainstream products

**Workshop Link:** <https://www.itu.int/net4/wsis/forum/2021/Agenda/Session/419>

**Organization:** World Intellectual Property Organization

**Date:** Tuesday, 27 April 2021

## Virtual Exchanges as an Alternative and Additional Form of Academic Mobility

**Workshop Name:** Virtual Exchanges as an Alternative and Additional Form of Academic Mobility

**Workshop Link:** <https://www.itu.int/net4/wsis/forum/2021/Agenda/Session/435>

**Organization:** The Bonch-Bruевич St.Petersburg State University of Telecommunications

**Date:** Thursday, 29 April 2021

### 1) Relevance with the WSIS Action Lines – please specify the Action Lines C1 to C11

C3 Access to information and knowledge

C4 Capacity building

C7 ICT applications: benefits in all aspects of life – E-learning

C11 International and regional cooperation

### 2) Did your workshop highlight any issues related to COVID-19? If yes, please explain.

The workshop was dedicated to the development of virtual academic mobility in the conditions of COVID-19.

### 3) Key achievements, announcements, launches, agreements, and commitments

### 4) Main outcomes highlighting the following:

#### I. Debated Issues

- Please capture highlights of the main issues discussed and interactions with audience

The main issues: organization of the educational process in the conditions of the pandemic, students ' attitude to distance learning, financial aspects, hybrid learning mode, lack of international students, internet connection problem

- Please highlight key achievements and challenges shared by the audience and/or panelists

Dr Georgios Dafoulas from Middlesex University (UK) gave hundreds hours of training during the COVID-19 pandemic;  
The number of applicants has decreased;  
Reduction of the budget for marketing.

#### II. Quotes

- Please provide two important quotes from the session and the names & organisation of the person you are quoting:

“They started with a millennial so we have the shift to generational going to generation Alpha and beta in the future, we need to consider how students.

They're no longer geared towards the old fashioned three or four year traditional undergraduate programs, so a lot of students now they're thinking about learning nuggets micro learning”, Dr Georgios Dafoulas

Director of Programmes Computer Science, Leader BSc Business Information Systems, Professor of Information Systems & Business Computing, Computer Science Department – Faculty of Science & Technology

Middlesex University (UK);

“With 19 and it is a global challenge that made many problems for us, but the as also push evolving The reasons are consistent”, Dr Hadi Shahriar Shahhoseini

Associate Professor and Vice Chancellor for International Affairs

Iran University of Science and Technology (Iran).

### **III. Overall outcomes of the session highlighting**

- main conclusions reached during the discussion  
The participants agreed that to ensure the quality of education, it is worth using online learning technologies and combining them with classic offline learning.
- the vision for implementation of WSIS Action lines beyond 2015

#### **5) Main linkages with the Sustainable Development Goals (please specify the SDGs)**

SDG 4: Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.

#### **6) Emerging Trends related to WSIS Action Lines identified during the meeting**

#### **7) Suggestions for Thematic Aspects that might be included in the WSIS Forum 2022**

Solving the problem of Internet access worldwide, which will facilitate the development of distance learning and international activities in universities.

The issue of payment for online training.



## Indigenous Peoples and Connectivity: Bridging the Digital Divide

**Workshop Name:** Indigenous Peoples and Connectivity: Bridging the Digital Divide

**Workshop Link:** <https://www.itu.int/net4/wsis/forum/2021/Agenda/Session/432>

**Organization:** ITU/Permanent Mission of Australia to the UN and UN DESA

**Date:** Wednesday, 28 April 2021

### **1) Relevance with the WSIS Action Lines – please specify the Action Lines C1 to C11:**

- C1. The role of governments and all stakeholders in the promotion of ICTs for development
- C2. Information and communication infrastructure: an essential foundation for an inclusive information society
- C4. Capacity building
- C6. Enabling environment
- C7. ICT applications: benefits in all aspects of life
- C8. Cultural diversity and identity, linguistic diversity and local content

### **2) Did your workshop highlight any issues related to COVID-19? If yes, please explain**

- The Covid-19 Pandemic has underscored the urgency of accelerating progress towards digital inclusion for all. It highlighted the importance of ICTs for continued functioning of societies but has also brought to the fore the startling digital inequalities between and within countries, especially for indigenous communities. More than ever before people have had to rely on ICTs, including for work, to conduct their business, access to information for health and for other services, as well as to connect with each other safely.
- Indigenous communities have been among the most impacted by Covid and yet they remain under-served, among those least likely to be connected to the internet and often lack equal opportunities to acquire digital skills needed to make the most of and create ICTs.
- During Covid, ICTs have also been critical for participation. Lack of access and affordability of ICTs for indigenous peoples have posed an additional barrier to participation and enjoyment of their rights.

### **3) Key achievements, announcements, launches, agreements, and commitments**

- The session was primarily awareness raising in nature.

### **4) Main outcomes highlighting the following:**

#### **I. Debated Issues**

- Please capture highlights of the main issues discussed and interactions with audience
  - There are 370 million indigenous peoples in the world. Many experience discrimination and exclusion, including barriers that prevent their enjoyment of their fundamental rights., including their right to communicate and participate.
  - They also face obstacles in accessing and using ICTs and face a digital divide wider than many other groups.
  - ICTs have become a necessity and should not be seen as a luxury.
  - It is critical for sustainability and impact as well as self-determination and respect of their rights that initiatives to address the digital divide for indigenous peoples are driven by or with those indigenous peoples.
  - There are many indigenous communities with innovative solutions and uses of ICTs, including relating to management and use of spectrum, that need support to scale up and be replicated by other indigenous communities.
  - Local content, local language and capacity building are key parts of bridging the digital divide, including for indigenous communities.
  - ICTs offer the opportunity to open new universes of action, for people to tell their own stories via digital platforms with the potential for economic, social and cultural benefits.
    - Please highlight key achievements and challenges shared by the audience and/or panelists
  - Examples shared: Government digital inclusion plans being developed in collaboration with indigenous peoples including investments in infrastructure, culturally appropriate digital skills and digital literacy, safety online, support for reinforcement and revitalization of indigenous languages and access to education and health services.
  - Examples shared of innovative programmed and advocacy by indigenous peoples and their partners to bridge the digital divide, build capacity of indigenous communities in ICT, and use ICTs to protect, practice and develop their cultures and livelihoods.
  - The opportunity and need to work in multistakeholder partnerships and other collaborations across sector to bridge the digital divide for indigenous peoples.
  - The remoteness of some indigenous communities poses a challenge to access and use of ICTs, but must be addressed so that indigenous communities can have equal opportunities to access, use and create ICTs.
- II. Quotes**
- Please provide two important quotes from the session and the names & organization of the person you are quoting:

- **Mikaela Jade** – CEO and Founder IndigitalCabrogal Woman of the Dharug-speaking Nation, CEO and Founder Indigital (Australia)

*“Our peoples have the right to learn about ICTs. The reason why it is so important is to understand that we are not only the consumers of technology, but we also can participate in the designing of new ICTs, through cultural language, knowledge and law”.*

- **Roberto Múkaro Borrero**, Guainía Taíno Tribe, President, United Confederation of Taíno People

*“Indigenous peoples are incredibly vulnerable and are at a huge disadvantage regarding digital access. Bridging the economic, information and digital divides can be linked to the core rights, such as freedom of expression and the right to receive information. As indigenous people engage with the United Nations and Governments, it is important to support initiatives led by indigenous peoples themselves, who really know what they want.”*

### **III. Overall outcomes of the session highlighting**

- main conclusions reached during the discussion
  - Overall, the session highlighted the importance of building capacity and connecting the unconnected within indigenous communities and reiterated the importance of supporting indigenous led efforts along these lines for more sustainability and impact of programmes.
  - It also underscored the urgency of addressing the digital divide for indigenous communities and shared impressive efforts being undertaken by and with a variety of stakeholders to do so and lessons learnt.

### **5) Main linkages with the Sustainable Development Goals (please specify the SDGs)**

- ICTs are recognized by the SDGs as a means of implementation for all SDGs.
- ICTs can help address or worsen inequalities (SDG10) that indigenous communities face in the offline world.
- The session was also a side event to the Permanent Forum on Indigenous Issues, which had a special focus this year on SDG16: Peace, Justice and Strong Institutions. Promoting peaceful and inclusive societies for sustainable development and the primary U.N framework for securing the culture and traditional knowledge of indigenous people is the UN Declaration on the Rights of Indigenous Peoples. It guarantees the right to maintain control, protect and develop their cultural heritage, traditional knowledge, and traditional cultural expressions, including manifestations of their science, technologies and cultures. Indigenous peoples and their participation are indispensable to the achievement of the SDGs.

### **6) Emerging Trends related to WSIS Action Lines identified during the meeting**

- To address the digital divide that indigenous communities continue to experience, investments and initiatives need to be led by or, less favorably, at least be in collaboration with indigenous peoples. This is key for sustainability and impact, as well as for the rights and empowerment of indigenous peoples.

- Indigenous voices have innovative ideas and initiatives on all aspects of ICTs, ranging from management of spectrum to use of emerging technologies.

**7) Suggestions for Thematic Aspects that might be included in the WSIS Forum 2022**

- Innovative approaches to ICTs and connectivity that are developed by or with indigenous peoples.

## Fiber Open Data – making data available for Africa

**Workshop Name:** Fiber Open Data – making data available for Africa

**Workshop Link:** <https://www.itu.int/net4/wsis/forum/2021/Agenda/Session/413>

**Organization:** World Bank/ITU

**Date:** Thursday, 29 April 2021

**1) Relevance with the WSIS Action Lines – please specify the Action Lines C1 to C11**

C2

**2) Did your workshop highlight any issues related to COVID-19? If yes, please explain.**

Yes. The ongoing COVID-19 pandemic has underscored the importance of access to broadband internet connectivity to mitigate against its negative impacts. However, while digital connectivity and technologies unlocked opportunities for some during the pandemic, large portions of the population in developing countries remain unconnected to the internet. Given the scale of investment needs to fill access gaps for high-speed broadband services for all by 2030, the availability to adequate data on existing telecom infrastructure, particularly fiber optic infrastructure, can support decisions for more targeted and cost-efficient infrastructure investments by the private and public sectors.

**3) Key achievements, announcements, launches, agreements, and commitments**

ITU and the WB convened to reaffirm their commitment to their Joint Declaration on Cooperation on the Advancement of the 2030 Agenda for Sustainable Development (Joint Declaration) by partnering to develop an Open Standard for terrestrial Optical Fiber Cable (OFC) infrastructure data and usable maps for terrestrial OFC infrastructure in Africa.

**4) Main outcomes highlighting the following:**

**IV. Debated Issues**

-Transparency with regards to fibre networks is already practiced by some network operators. In South Africa there are already published detailed maps of fibre networks. Concerns regarding the harm to competition entailed in sharing fibre network information/maps may be countered by these examples. The process of achieving open data for fibre optic networks is one of making data sharing normal as opposed to exceptional.

-Evolution in the availability of the telecommunications industry and data services have affected the validity of the reasons why companies are not inspired to share infrastructure data. The ITU is in the process of procuring research that will seek to identify evidence of benefits experienced by countries where data was released openly.

- Many African countries may not have data on Fiber or may already have but not in formats that are shareable for re-purposing/re-use. This has led to significant challenges associated with cable cuts through construction activities which has significant cost implication. Research has shown that annual costs worldwide could be in the upwards of 1.3 billion dollars for documented cuts. This increases the cost of ICT services to customers, businesses and investors not forgetting service outages and increased constructions costs that hemorrhage economies. The solution however lies in proper documentation of fiber data in formats and with the objectives of sharing for public good, that's fiber open data.

- In the framework of the PRIDA project, and in relation to enhancing the broadband connectivity, an activity was achieved to collect relevant data when available for installed, ongoing, or planned. Backhaul links in the African countries in order to update the ITU Transmission Network Map. More than 22 countries provided significant data, but inputs are still to come from 10 countries. A specific effort of advocacy on the needs to deliver some critical information is requested for other 10 African countries which did not provide any data by end March 2021. An interactive tool needs regular update, so an effort will be made to launch a second exercise by end 2021.

#### V. Quotes

- Please provide **two** important quotes from the session and the names & organisation of the person you are quoting

**Stephen Breaux:** “on behalf of the BDT Director Ms Doreen Bogdan Martin I wish to welcome you to this WSIS Session co-organized by World Bank/ ITU for the announcement of the Fibre Open Data initiative for making data available for Africa.”

**Lucine Munkyoung Park:** “Broadband mapping initiative helps ensure efficient and effective broadband deployment in underserved areas. This initiative aims to address global infrastructure data gaps to support evidence-based investment programs and policy making.”

#### VI. Overall outcomes of the session highlighting

-The WB/ITU lead activity, introduced in the session, focuses on the promotion of availability of Open Data ICT Infrastructure having Africa as a starting point. And it will be expanded to the rest of the world on future stages.

- Open Fiber Cable (OFC) Infrastructure data availability will support evidence-based investment programs, policy making, and act as a catalyst for innovative digital connectivity solutions in terms of technology and financing mechanisms.

#### 5) Main linkages with the Sustainable Development Goals (please specify the SDGs)

SDG 9

#### 6) Emerging Trends related to WSIS Action Lines identified during the meeting

Open Fiber Cable (OFC) Infrastructure data availability and use for investment programs and policy making

**7) Suggestions for Thematic Aspects that might be included in the WSIS Forum 2022**

Open Fiber Data project update and impact assessment

## The impact of digital transitions on society and economy

**Workshop Name:** The impact of digital transitions on society and economy

**Workshop Link:** <https://www.itu.int/net4/wsis/forum/2021/Agenda/Session/386>

**Organization:** EC MEDICI

**Date:** Thursday, 29 April 2021

### 1) Relevance with the WSIS Action Lines – please specify the Action Lines C1 to C11

C1. The role of governments and all stakeholders in the promotion of ICTs for development to support the implementation of ICT when ensure the secure environment to organise initiatives for further development of complete

- eGovernment
- eHealth
- eLearning
- eCommerce and banking

C2. Information and communication infrastructure

- smart city infrastructure development
- maintaining of the current infrastructure
- develop a new one corresponding to the new technologies

C3. Access to information and knowledge

- Access to broadband Internet and other platforms that allow information and communication
- equal access to the formal and informal training
- secure access
- AI, IoT, Data Analytics enhance human productivity

C4. Capacity building

- digital literacy to become a basic
- development of new technical and non-technical skills
- opportunity to knowledge growth

C5. Building confidence and security in use of ICTs

- to design and develop security at each level of ICT infrastructure - very important
- to take into account GDPR rules
- to keep individual liberty

C7. ICT applications: benefits in all aspects of life — E-government

Important aspect of life and development of Smart cities:

- customization and personalization of information
- citizen-centred
- open and collaborative environment



#### C7. ICT applications: benefits in all aspects of life — E-health

Important aspect of life which support the monitoring and prevention the Data Science, AI and IoT development increases accuracy.

#### C8. Cultural diversity and identity, linguistic diversity and local content

- providing access to all population without regards of cultural and ethnical diversity and identity
- bring digital equality
- The most important issue in the digital transformation is to preserve our humanity thanks to an ethical approach

#### C11. International and Regional Cooperation

- International and Regional cooperation in responding to political issues surrounding denial of access to ICTS and their contents / Monitoring and helping to ensure digital access for each nation's citizens, hospitals and businesses. When this issue occurs at a national level, it immediately impacts that nation's regional partners in every sector.
- This is particularly important due to the global and regional IT connectivity needed for contemporary economies, transport, energy supply, health care, and disaster resilience.

### **2) Did your workshop highlight any issues related to COVID-19? If yes, please explain.**

Yes, the workshop highlighted the opportunities as well as challenges related to digital transformation led by COVID-19 and the prevalence and in many cases the absence of access to digital assets.

For Life During Corona, the gap between regions whose medical facilities can use ICTs for testing, diagnosis and treatment, and regions which cannot, was highlighted as a crisis situation during COVID.

Several aspects of the Life after Corona were mentioned:

- The acceleration of the digital transformation- 5G & cybersecurity, AI and Big data
- Smart cities – rapid growth and related cyber risks
- Globalisation and climate change cooperation
- Health – healthcare as a national resource
- Health - healthcare as a national resource which is reliant on ICTs for medical practise as well as in international cooperation on critical health issues
- Consumers from different generations – for Z gen – Covid-19 is great polarizer

In addition, it was highlighted on the IoT security vulnerabilities and considerations in smart city after Pandemic topic. The meaningful change in cities during and after the pandemic is digital transformation, smart city rapid growth, and cyber risks. The outcome will be a new kind of resilient city, completely different than what we have seen before. During the COVID19, the nations' daily behaviour changed because most activities have to manage digitally, and it means more cyber risks for people. Based on predictions, cybercrime damages will cost the world more than \$6 trillion by end of 2021, exponentially more than the damage inflicted from natural disasters in a year, and more profitable than the global trade of all major illegal drugs combined.

### **3) Key achievements, announcements, launches, agreements, and commitments**

Nowadays there is a recurring buzzword: Digital Transformation (DX or DT) – it is an opportunity or a nightmare? The pandemic strengthened this trend, digital transformation will help to mitigate the effects of the crisis, improve resilience. “Resilience”, by the way, another recurring term in the

pandemic time. We all agree on the meaning of the term “transformation” but “Digital” has different meanings. A comprehensive definition of the term Digital transformation should be the integration of digital technology into all areas of activity, from business to public sector, fundamentally changing how we operate and deliver value to customers or citizens.

Every area of our life is "touched" by digital transformation. Its impact is dramatically changing life dynamics. The decisions we make entering the digital transformation are an important part of our future existence. Consideration of the consequences is required.

We have to think about what decisions we take in a digital transformation and to try to predict the butterfly effect of them trying to provide the right ethical basis to protect humanity from ourselves.

The diffusion of platforms if on one side creates new opportunities on the other side “kills” a number of existent businesses. The access to global service platforms creates a shortcut between offer and demand cutting out major part of the traditional added value chain. You don’t need to invest relevant capitals to feed your business, the key investment is the creation of the digital platform, the asset you own is the number of users both on the offer and demand side. Following the schema of some of the recent revolutions the idea was: digital technology is disruptive cancelling a number of businesses, but new businesses will be created, the key point is that the specific nature of digital technology is actually creating less positions than the one eliminated. In general, to improve our life with technological development, enhancing and visualising communication, services, and processes, as well as stimulating creativity. New skills are developing, new professions are emerging, and others are disappearing, but there is another side - the effect of alienation.

Significant changes and challenges are immersed in education as well. The decisions we make now will be visible in decades. Transformations in education build new environments and methods of teaching and learning. All this is done in the name of improving access to education, personalized and secure training to build more business-ready citizenship.

The outcome in the field of urban settlements will be a new kind of resilient city, completely different than what we have seen before. It means more big data, more cyber risks and attack and more investment on smart cities and emerging technologies such as IoT, AI and blockchain.

It needs more expertise sessions to find practical solutions instead of theoretical for the negative impact of digital transitions on society and economy and make a roadmap, action plan and RM for that. We must keep humans in the loop and carefully consider the social and economic impact due to digital transition.

Panellists Identified some concrete actionable items based on on-line webinars and courses (e.g. ITU Academy) that will directly involve them: a) Improving Awareness & promoting Capacity Building Actions; b) Fostering a Culture of Cybersecurity. Starting from the actual interdisciplinary team it will be opened a call for participation to establish an Interdisciplinary team analysing mid & long-term impacts of DT.

On the occasion of the panel Valmiki Mukherjee, Chairman of Cyber Future Foundation announced the initiative started for Cyber Peace Goals, and the alignment of the Cyber Peace Goals with the Sustainable Development Goals.

#### **4) Main outcomes highlighting the following:**

##### **IV. Debated Issues**

**Please capture highlights of the main issues discussed and interactions with audience**

- Key social and economic issues (loneliness, unemployment, “workers’ robotisation”, etc.)

- Appropriate use of technology: citizens first
- Ensure better connectivity
- Cyber Risks to Watch Out during pandemic for 2021-22 and smart cities security considerations
- Learn from each other in a world of great distrust and fake information
- Ensure cyber resilience in case of natural or human disasters
- How to "survive" in case of cyber disasters, or loss or blocking of access to ICTs

Considering the evolution of Cities, within the general framework of digital transformation, from “Digital” to “Smart” on the occasion of the panel Dr. S. Toporkoff introduced the concept of “Cognitive” City, it expands the concept of the smart city by its constant interaction with its citizens through advanced information communications technologies. A link based on collaboration, interaction, the sharing of information, transparency and skills.

**Please highlight key achievements and challenges shared by the audience and/or panellists**

Opportunities

- Interrelated changes and economic opportunities
- Technological capabilities of DT/DX – AI, IoT, Data Analytics etc. to improve human wellbeing and enhance human productivity
- Providing digital access to disconnected and underserved population
- Improved recovery activities in case of natural or human disasters
- Digital transformation and cyber pervasiveness could allow for tight "central" control over citizens and limit human rights.
- Continue to move towards international agreement and implementation of U.N. and ITU indications on widespread and free availability of ICTS and contents

Challenges

- Disruption of existing socio-economic models, established markets, potential average loss of working positions
- Creating digital divide and inequity between have and have nots, both on the personal level and on the supra-national level between countries
- Introducing significant risk and exposure towards cybercrimes, privacy infringements and individual liberty reductions.
- Ensure overall resilience even in case of cyber-tech failures

Identified areas of application for digital transformation opportunities to advance economic outputs

- Effect of digital models towards bringing innovative ideas to fruition, cheaper experimentation, collaboration and dissemination of information resources
- Increasing interaction between people, government, organizations and businesses
- Bringing digital equity and opportunity through careful planning and execution, dispersion of information resources
- Increasing productivity - Automation vs. human intervention
- Reskilling, up skilling workforce – opportunity for knowledge growth
- Replacement of jobs by machines, and freeing up human ingenuity and creativity for greater good
- Balancing Policy and business priorities to expand access to economic opportunities.

**V. Quotes**

*“It is evident that digital transformation it is not a process “one size fits all”, each specific sector and even activity requires a particular approach and custom solution; this starting from the three main branches: citizens, companies, public administrations.” (Alfredo M. Ronchi – MEDICI Framework, Italy)*

*“Following the schema of some of the recent revolutions the idea was: digital technology is disruptive cancelling a number of businesses, but new businesses will be created, the key point is that the specific nature of digital technology is actually creating less positions than the one eliminated.” (Alfredo M. Ronchi – MEDICI Framework, Italy)*

*“New technologies are influenced by and themselves influence political, economic, social, cultural systems and also ethical values. Digital transformation needs to be values-driven values to save and improve lives, empower people to take their destiny in their hands, increase peace by connectivity and transparency. In short: digital transformation is ethically negative if it increases dependency, vulnerability and domination. It is ethically positive if it increases freedom, peace, education security, community, identity and spirituality, in short to become truly human.” (Christoph Stückelberger – Globethics.Net, Swiss)*

*“Think Vision; Think Collaborative and Citizens; Think about reproducing, adapting and improving; Think Developing skills, Think sustainable, inclusive, cognitive” (Dott. Sylviane Toporkoff President & Founder Global Forum, France)*

*“Cognitive city expands the concept of the smart city by its constant interaction with its citizens through advanced information and communication technologies” (Dott. Sylviane Toporkoff President & Founder Global Forum, France)*

*“The dynamics of our time are big, things are happening faster, this is growing exponentially in recent decades. The reason is the invention and launching of computers, the global network and its services.” (Eugenia Kovatcheva, PhD, University of Library Studies and Information Technologies, Bulgaria)*

*“Every area of our lives is “touched” by the digital transformation. Significant changes and challenges are immersed in education as well. The result of their solutions is not seen immediately, but after a decade. Transformations in education are both in the environment and in the methods of teaching and learning. All this is done in the name of improving access to education, personalized and secure training to build more business-ready citizenship.” (Eugenia Kovatcheva, PhD, University of Library Studies and Information Technologies, Bulgaria)*

*“Digital transformation and cyber security go hand in hand. We cannot realize the benefits of digital transformation without securing the digitally connected components of cyber space. The challenges associated with cyber threats to digital assets make everyone connected to this ecosystem vulnerable, so we must introduce a global regime of cyber peace to ensure there is an expectation of law and order in the cyber world. The cyber peace goals must align with the sustainable development goals so that we can ensure their maximum impact. At this year’s WSIS Forum the Cyber Future Foundation along with its fellow cyber peace partners Cyber Peace Institute and Cyber Peace Foundation propose the adoption of the Cyber Peace Goals to which will ensure digital transformation positively impacts everyone” (Valmiki Mukherjee, Chairman & Founder, Cyber Future Foundation)*

*“**Cyber-insecurity** - The digital transformation can also be used to remove and destroy the capacities it was meant to bring about, including the digital transformation itself.” (Lynn Thiesmeyer, Professor Emerita and Adjunct Professor at the Faculty of Information Studies, Keio University, Japan)*

*“The lack of international agreement on standards and countermeasures is hampering approaches to the growth of government-based cyber-insecurity, yet their implementation will be even more difficult unless we begin considering it now.” (Dr. Lynn Thiesmeyer, Professor Emerita and Adjunct Professor at the Faculty of Information Studies, Keio University, Japan)*

*“Smarticipation concept to make an interactive connection between people and governments for access to information and increase public knowledge.” (Mahdi Bina, Head of Smart city Council at Canada InnoGate Solutions, Canada)*

*“The outcome will be a new kind of resilient city, completely different than what we have seen before. It means more big data, more cyber risks and attack and more investment on smart cities and emerging technologies such as IoT, AI and blockchain.” (Mahdi Bina, Head of Smart city Council at Canada InnoGate Solutions, Canada)*

*“Digital transformation is the key of any technological progress of our times. This rapid change of technologies brings serious difficulties to users, business and societies. Still the benefits are enormous.” (Dimitris Androutsopoulos, Co-founder and CEO, Net Technologies Finland Oy, Finland)*

*“Digital transformation, the cornerstone towards resilient and safe societies and businesses.”*

(Dimitris Androutsopoulos, Co-founder and CEO, Net Technologies Finland Oy, Finland)

*“Countries need to provide legal basis for smooth digital transition and to regulate their impact on society and economy” (Dr. Pavan Duggal Advocate, Supreme Court of India, Chairman International Commission on Cyber Security Law)*

*“As countries have to increasingly start working together for addressing legal and policy issues concerning impact of digital transition on society and economy, cyber resilience and digital transformation will be only mantra way ahead.” (Dr. Pavan Duggal Advocate, Supreme Court of India, Chairman International Commission on Cyber Security Law)*

## **VI. Overall outcomes of the session highlighting**

- **main conclusions reached during the discussion**
- **the vision for implementation of WSIS Action lines beyond 2015**

Panellists Digital transformation through different key topics ranging from socio-economic to ethic aspects outlining trends & outcomes.

Digital transformation leads the society is to increase productivity, to entertain virtually, to be connected from distance. It is a bright side of the process. There is another one - losing our humanity and the lack of international agreement on standards and countermeasures is hampering approaches to the growth of government-based cyber-insecurity.

Digital transformation should be considered with sufficient thought to cyber security as it ensures that the connected assets and the data associated with the digital transformation is put to productive use by the users. Adjust region policies and processes to address the cybersecurity and privacy risk mitigation challenges during and after Pandemic & Implement updated mitigation

### **Obstacles**

- Political: shorter mandates than evaluation cycles, treating free and full ICT access as a resource for elites only
- Sociological
- Financial
- Monitoring and evaluation
- Technology

## 5) Main linkages with the Sustainable Development Goals (please specify the SDGs)

Goal 3: Ensure healthy lives and promote well-being for all

Digital transformation as a tool develops services which ensure well being

Goal 4: Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all

Every area of our lives is "touched" by the digital transformation. Significant changes and challenges are immersed in education as well. The result of their solutions is not seen immediately, but after a decade. Transformations in education are both in the environment and in the methods of teaching and learning. All this is done in the name of improving access to education, personalized and secure training to build more business-ready citizenship.

Goal 8: Promote inclusive and sustainable economic growth, employment and decent work for all

Digital transformation in action increase productivity and ensure equal access to work. New jobs emerge and people have to develop new competences.

Goal 9: Build resilient infrastructure, promote sustainable industrialization and foster innovation

There is a strong need to check overall resilience in case of natural or human disasters

Goal 11: Make cities inclusive, safe, resilient and sustainable

There is a strong need to check overall resilience in case of natural or human disasters

Towards smart and safe societies, which is on the top of the list of priorities, the need for applying the most advanced secure network with such features that match the user requirements, is mandatory. Similarly, networks and applications have to guarantee the resilience of the critical infrastructures, such as energy plants and pipelines, airports and harbours, railways and industrial areas.

Critical communications have been used for many years for public safety. From the old narrow band legacy networks, such as TETRA, to the current trend of 5G (like the new one in Finland), organizations and users get full of benefits. Connecting public safety networks offer the opportunity to the LEAs to better serve the citizens. Cooperation between public safety authorities is vital. Common operations are helping against organized crime.

The last 3 years, Police Authorities of Norway, Sweden and Finland are capable of common operations since network interoperability has been achieved between the 3 networks.

New broadband technologies offer unique features. Images and videos are improving surveillance, search and rescue and emergency situation handling.

IoT solutions offer new power in interconnecting and controlling various units of any critical infrastructure. Decision making is heavily supported by AI-based tools. New algorithms will support vital functions while 5G offer to users a variety of new smart apps.

Goal 16: Promote just, peaceful and inclusive societies

For the achievement of all three goals (9,11,6), common standards and laws have to be established especially in cybersecurity

As Dr. Lynn Thiesmeyer says: the digital transformation is a tool and a process that not only can empower and liberate nations and their capacities but can also be used to remove and destroy those capacities, including the digital transformation itself. In addition to working directly against Sustainable Development Goals 9, 11, and 16, these actions deny both

domestic and international freedom of communication, knowledge and economic activity among ordinary citizens as well as between the nation and its economic partners.

#### **6) Emerging Trends related to WSIS Action Lines identified during the meeting**

**According to (inter)national standards (HQE, LEED) and evaluation criteria, define your project with 6 core values:**

This session deals with technologies, human factors, social issues, privacy, security, capacity building, e-services, education and cultural aspects, economy, working positions and more.

Increased values to take into consideration:

- proximity of services, health, risks, carbon footprint, acting on employment, education, culture, housing comfort...
- to give back to citizens a more pleasant living environment and to reinforce the resilience of cities in the face of tensions due to climate change, human and natural disasters.

#### **7) Suggestions for Thematic Aspects that might be included in the WSIS Forum 2022**

Emerging jobs trends after 2 years under the COVID-19, re-skilling and up skilling to match new positions

Digital transformation in education for Z generation and their perspectives, opportunities and drawbacks

Digital transformations and Smart cities; from Vulnerable to Valuable; goodbye privacy?

Artificial Intelligence, Machine Learning, new frontiers, opportunities and drawbacks

Ethical and business standards for international cooperation in the Cyber-pandemic and Cyber-insecurity

Digital Transformation & Innovations in Cyber Security, ICT based on 5G,IOT, Blockchain, AI, VR, Big Data & other new technologies and Linking Education with ICTs Capacity Building & Employability

**Workshop Name:** Digital Transformation & Innovations in Cyber Security, ICT based on 5G,IOT, Blockchain, AI, VR, Big Data & other new technologies and Linking Education with ICTs Capacity Building & Employability

**Workshop Link:** <https://www.itu.int/net4/wsis/forum/2021/Agenda/Session/428>

**Organization:** CMAI Association of India

**Date:** Friday, 30 April 2021



## Digitalization in the Cities and Privacy for Citizens

**Workshop Name:** Digitalization in the Cities and Privacy for Citizens

**Workshop Link:** <https://www.itu.int/net4/wsis/forum/2021/Agenda/Session/384>

**Organization:** Geneva Cities Hub

**Date:** Friday, 30 April 2021

The development path of public welfare organizations driven by new technologies— Bridging the Digital Gap under the influence of COVID-19 epidemic

**Workshop Name:** The development path of public welfare organizations driven by new technologies— Bridging the Digital Gap under the influence of COVID-19 epidemic

**Workshop Link:** <https://www.itu.int/net4/wsis/forum/2021/Agenda/Session/437>

**Organization:** Youchang Consulting

**Date:** Friday, 30 April 2021

## International Conference & Awards on Digital Transformation of Education: Road towards SDG 4

**Workshop Name:** International Conference & Awards on Digital Transformation of Education:  
Road towards SDG 4

**Workshop Link:** <https://www.itu.int/net4/wsis/forum/2021/Agenda/Session/376>

**Organization:** CMAI Association of India

**Date:** Friday, 30 April 2021

## Media and Information Literacy for Government Officials and Policy-makers

**Workshop Name:** Media and Information Literacy for Government Officials and Policy-makers

**Workshop Link:** <https://www.itu.int/net4/wsis/forum/2021/Agenda/Session/399>

**Organization:** United Nations University Operating Unit on Policy-Driven Electronic Governance, United Nations Educational, Scientific and Cultural Organization, Autonomous University of Barcelona

**Date:** Friday, 7 May 2021

### 1) **Relevance with the WSIS Action Lines – please specify the Action Lines C1 to C11**

Media and Information Literacy is a complex and composite concept that entails knowledge, skills and attitudes allowing citizens interaction and critical engagement with content from media and all information providers as a lifelong learning process. Access to information using ICT's is necessary and can be considered pre-requisite for this process, which is perfectly aligned with WSIS Action Lines 1 and 3, not only for the promotion of ICT's for development, but also regarding access to information and knowledge (including ethical and critical decision-making of all citizens, as emphasized by WSIS Action Line 10).

It is individual and collective development that allows critical and global citizenship all around the world in respect for human rights, citizens' empowerment, cultural and linguistic diversity, which is in the same vein as WSIS Action Line 8 for Cultural Diversity and Local Content.

### 2) **Did your workshop highlight any issues related to COVID-19? If yes, please explain.**

During the workshop, the Covid-19 pandemic was mentioned as an important fact that has been showing the indispensability of digital technology. It was stressed the additional importance brought to ICT's during the pandemic and the infodemic dangerous trend in health-related issues in digital and physical environments.

### 3) **Key achievements, announcements, launches, agreements, and commitments**

The key agreement is on the urgency and importance of launching a Media and Information Literacy Massive Open Online Course for Government Officials and Policy-makers to support planning and implementation of national MIL policies and strategies. This urgency has been exacerbated by the pandemic context giving the amount of false or misleading information that hinders citizens' behavior and governments' actions. Well equipped citizens contribute for healthier media environments where societies at large and all stakeholders commit for the need to empower citizens rather than focus on protectionist approaches.

### 4) **Main outcomes highlighting the following:**

#### **VII. Debated Issues**

- Please capture highlights of the main issues discussed and interactions with audience

The main issues discussed focused on the challenges and limitations that countries face in the implementation of national MIL policies and strategies.

The following topics were particularly emphasized:

- The importance of considering MIL as a cross-policy and to include all stakeholders, moving from protectionist to empowerment;
- The relevance and contribution of MIL for SGD's;
- Challenges in MIL implementation: sensitive political and cultural national environments, leaving no one behind, leapfrogging MIL in formal, non-formal and informal initiatives, financial resources, understanding of the overarching integrated public concept of media and information literacy.
  - Please highlight key achievements and challenges shared by the audience and/or panellists

Covered in previous point.

#### **VIII. Quotes**

- Please provide two important quotes from the session and the names & organisation of the person you are quoting

#### **Alton Grizzle, Programme Specialist in Communication and Information, UNESCO**

"We need concrete action plan to ensure that we can achieve national media information literacy policy as a journey towards all. It is a long journey, and it started many, many years ago - 40 years ago with UNESCO, but even before - and we have been calling for change".

#### **Tomás Durán-Becerra Head of Research UNIMINUTO University, Colombia**

"We have to ask questions we have to create this culture of asking questions".

#### **Dorcas R. Bowler, Director of Libraries, National Library and Information Services, Ministry of Education of the Bahamas**

"The purpose of media and information literacy is to empower the uses of technology and to [foster] true continuous learning and knowledge acquisition about the function of media, the mechanisms for content creation and distribution, the rights of persons to information and literacy and information as a whole and to allow them to be able to express freely".

#### **IX. Overall outcomes of the session highlighting**

- main conclusions reached during the discussion

The main conclusion draws on the role played by all stakeholders in planning, implementing and assessing Media and Information Literacy. Governments are key actors in this process and there is significant progress in several countries. Political will and commitment are essential to contribute for media and information literacy for all. Nonetheless, other stakeholders and their importance shall not be overlooked, namely the role played by the academia, research institutions, civil society organizations and citizens individually considered. It is a collective endeavor with global benefit.

#### **5) Main linkages with the Sustainable Development Goals (please specify the SDGs)**

Through MIL, citizens can better understand their rights and responsibilities in a digitized society, have the skills and competencies to navigate in information and interact with media and information providers, be aware of intersectionality and different forms of discrimination, thus helping to advance the achievement of SDGs, namely 4, 5, 11 and 16.

Thinking about all dimensions that MIL touches and the range of different skills and competencies, we understand the ultimate goal of peaceful living, which is underpinned in SDG 16 to “promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels”. Particularly, MIL helps to advance towards the achievement of target 16.10 to “ensure public access to information and protect fundamental freedoms, in accordance with national legislation and international agreements”.

**6) Emerging Trends related to WSIS Action Lines identified during the meeting**

To empower citizens rather than protecting them in the framework of media convergence, fake news and disinformation using ICT as part of the solution. This also avoids concentrating on the online perils and helps to build resilient, comprehensive and inclusive societies.

**7) Suggestions for Thematic Aspects that might be included in the WSIS Forum 2022**

Monitoring and assessment has been a recurrent and attractive topic with impact in different domains and with different objectives. For governments, it contributes for better performance, efficiency and efficacy while thriving for citizens’ engagement and more transparent, accountable and trustful practices. As such, regardless of the specific area in which it can be considered (in terms of scientific or thematic field, as local e-government, media and information literacy at the national level), it can be of added value and can also help bridging with other objectives and initiatives (as capacity building).

## Combating counterfeit telecommunication/ICT devices and software

**Workshop Name:** Combating counterfeit telecommunication/ICT devices and software

**Workshop Link:** <https://www.itu.int/net4/wsis/forum/2021/Agenda/Session/406>

**Organization:** ITU-T Study Group 11 "Signaling requirements, protocols, test specifications and combating counterfeit products"

**Date:** Friday, 7 May 2021

### 1) Relevance with the WSIS Action Lines – please specify the Action Lines C1 to C11

- Combating counterfeiting ICT devices is the way to prevent its negative impact on network infrastructure (C2).
- Combating counterfeiting of ICT devices/software is one of the tools to be used for consumer protection (C5).
- Combating counterfeiting software is linked with combatting illegal and harmful content in the media (C9).
- Combating counterfeiting is an international issue where all stakeholders need to be involved (C11).

### 2) Did your workshop highlight any issues related to COVID-19? If yes, please explain.

No

### 3) Key achievements, announcements, launches, agreements, and commitments

- VII.** Combating counterfeiting of ICT devices is very actual and well-known issue worldwide. Despite the intensive work that has been done by ITU-T SG11, there are still some gaps that are crucial for achieving success and resolving this important issue, such as device authentication, effective control of device with cloned and tampered identifiers and EIR and CEIR standardized interfaces.
- VIII.** The piracy and multimedia data misappropriation is a new trend which affects most of the countries. There is a need to develop a global solution to combat such challenge and raise awareness among audiovisual industry, operators, governments and consumers.
- IX.** Panelists committed to continue this relevant discussion in ITU and encouraged all to join ITU-T SG11 meetings and all related events.

#### 4) Main outcomes highlighting the following:

##### I. Debated Issues

###### a. *Tampered or counterfeit software and consequent data misappropriation*

Based on the experiences shared by members looking at tampered or counterfeit software, and consequent data misappropriation (such as TV Piracy), it appears that there is no "silver bullet" and various solutions should be implemented together. There was a discussion aimed to identify key actions that membership should put in place in order to solve this problem and how ITU standardization activities could assist on this.

- Uruguay and Brazil stated that piracy or cybercrime is a multi-million dollar problem that generates great economic losses for the audiovisual industry and provokes serious risk related to cyber security privacy, which is a big challenge for operators, governments and consumers.
- The legal framework that protects the industry and consumers is among the measures, which member states currently deploy. Among other instruments, this kind of legislation allows regulator to stop the import and block of unauthorized/illegal devices (e.g., tampered satellite receivers), block certain suppliers of illegal content and implement certification process. However, regulations have not kept paced with the new technologies, meaning that certain activities that affect the sector remain "in limbo".
- The second measure is to build coordination and cooperation between the public and private sector in order to seek specific solutions that facilitate addressing the problem.
- In general, the customer gets the content without assessing the consequences they may face afterwards. The customer's end-device might be affected by spyware, data theft, uncontrolled remote access, to name but a few. Therefore, the third measure that needs to be put in place is to educate people and raise awareness about the problem as it may help to stop promoting the illegal practice.
- It was noted that the illegal content provider is not located in one particular country and therefore, the international collaboration is important to achieve a success.
- It was highlighted that, based on the contribution proposed by Brazil in March 2021, ITU-T SG11 started a new work which aim is to collect use cases on the combat of multimedia content misappropriation.
- All Member States are encouraged to share their experience on fighting against multimedia content misappropriation, which will be further used for developing a global solution.

###### b. *Combating counterfeit and stolen ICT devices*

Tracking of ICT products becomes a problem on the national level. The discussion focused on the measures that members states and industry put in place to stop the circulation of counterfeit and/or stolen ICT devices.

- Colombia and Mauritania highlighted their experience on combating counterfeiting and stolen ICT devices. It was noted that countries loss the



revenue of the smartphones sales due to counterfeit. For example, it was indicated that the European market lost around 45.3 billion Euro over 2015.

- It was highlighted that the system implemented in Colombia blocks stolen ICT devices checking the IMEIs on different criteria. As of today, the subscriber database in Colombia contains 62 million entries for 8 million population. The positive list contains 116 million IMEIs with relevant owner's ID while negative list contains 25 million of blocked IMEIs (60% non-registered, 16% invalid and 7% duplicated). However, there is a problem with the registration of new devices in the positive list for devices which were bought in Internet or brought from abroad. Moreover, this problem also applies for devices connected to different networks in one or more countries. IMEI alteration is another issue as there is a wide margin of error caused to identification which equipment is genuine or original and which one has been altered or tampered. In this regard, Colombia highlighted the importance of the standardization of measures and tools, which would help to stop IMEI alteration.
- Mauritania pointed out that sometimes the counterfeit and tampered devices may be more affordable than the genuine one. However, the counterfeit devices bring some negative impact on human health, the security issues, consumer privacy issues, the quality of networks and services, revenue loss and so on. Therefore, from this perspective, it is important to establish regulatory and technical framework to combat proliferation of counterfeit products. Mauritania suggested to establish a legal framework, C&I regime and establish a solid cooperation between all stakeholders at the regional level.
- Also, all panellists highlighted the importance of raising awareness about this challenge. There is a need of global cooperation in order to exchange information among all countries on stolen mobile devices.
- Svyazcom (Russian Federation) highlighted the importance of having standardized interface between EIR and CEIR, as it may help to save 40-50% of time and resources as well as 20-30% of costs for building and deploying the solution.
- The Global Voice Group (Cape Town) highlighted that it is estimated that between 10 to 20% of the mobile devices connected to the African telecom networks are counterfeit and the number continues to grow. The Global Voice Group also proposed using digital certificates for identification of the terminals and the blockchain technology may become one of the solutions to identify devices on the network.
- The Moderator highlighted that [ITU Conformity Product Database](#) might become a tool to facilitate combating counterfeiting.
- Qualcomm (United States) pointed out that illegal devices are other forms of fraud and therefore the mechanisms to commit that crime is essentially similar to the one applied for counterfeit and stolen devices. The regulatory framework is obviously very important. Along with other measures such as type approval or device certification the regulation should also require mandatory device registration at the national level. The registration system should allow regulator

or the government to be able to access and analyse the data from mobile networks.

- The technical framework should be in place as well. It should grant amnesty to existing devices which were already in place. However, for the time being, there is no device authentication and currently, all we have is subscriber authentication.
- Also, it was noted that Open-Source projects should be encouraged for implementing such solutions.
- As kind of measures, it was proposed to study within SG11 the potential approach on creation of device authentication mechanisms and its implementation on the networks.
- ITU-T SG11 developed and continue working on several standards which define frameworks on combating counterfeiting and stolen ICT devices. All members are encouraged to contribute to the following SG11 meeting on the topics and proposals highlighted at this session.

## II. Quotes

- **Mrs Mercedes Aramendía (President of the Uruguayan Regulatory Unit of Communication Services (URSEC), Uruguay):**  
*“The piracy or cybercrime practice can be carried out from anywhere globally. So, collaborating at regional and international level is essential to share information, techniques and seek global solution is increasingly relevant.”*
- **Mr Cheikh Tidjani Oudaa (Head of technical department of Autorité de Régulation, Mauritania)**  
*“In order to combat counterfeiting, it is important to conclude the mutual recognition agreement between countries for conformity assessment and market surveillance.”*
- **Mr Mohammad Raheel Kamal (Senior Director of Qualcomm, United States)**  
*“There is a need a public consultation among the ministries, the governments, the customs, the importers, the manufacturers and consumers implementing a system on combating counterfeiting and stolen ICT devices.”*

## III. Overall outcomes of the session highlighting

- According to the discussion, it is proposed that ITU-T SG11 should:
  - i. start new work items on: device authentication; EIR-CEIR standardized interface;
  - ii. conduct open discussion among different stakeholders on implementing system standardized by ITU on combating counterfeiting and stolen ICT devices/software;
  - iii. collect use cases on the combat of multimedia content misappropriation and further develop standards and technical report to address this problem.

### 5) Main linkages with the Sustainable Development Goals (please specify the SDGs)

Vendors lose their revenues due to large market of counterfeit devices, while network operators face the challenges on growth of connected counterfeit devices which decrease QoS on their networks (SDG9).

### 6) Emerging Trends related to WSIS Action Lines identified during the meeting

The implementation of systems combating counterfeit and stolen ICT devices all over the world will mitigate the number of counterfeit or illegal devices connected to the network which will definitely reduce the negative impact of such devices on the network infrastructure.

**7) Suggestions for Thematic Aspects that might be included in the WSIS Forum 2022**

Authentication of ICT devices aiming to facilitate combating counterfeit and stolen ICT devices

## Inclusive and responsible digitalization in the city

**Workshop Name:** Inclusive and responsible digitalization in the city

**Workshop Link:** <https://www.itu.int/net4/wsis/forum/2021/Agenda/Session/382>

**Organization:** Association Internationale des Maires Francophones; Geneva Cities Hub

**Date:** Tuesday, 4 May 2021

**1) Relevance with the WSIS Action Lines – please specify the Action Lines C1 to C11 :**

C.1 : The event put forward the relevance of better including cities into the ICTs debates, since cities play a key role in the deployment of digital infrastructure, in delivering public services through digital means, and in setting-up multi-stakeholders frameworks to innovate, to regulate, and promote ethical digital values such as inclusion and digital sobriety.

C.3, 8, 10: Cities have to ensure that they provide equitable access to information and knowledge by connecting as many residents as possible to the internet and other ICTs. The issue of digital inclusion (in particular towards groups of people in vulnerable situation, such as minorities, people with disabilities, elderly people, etc.) is a priority for cities in that regard.

**2) Did your workshop highlight any issues related to COVID-19? If yes, please explain.**

COVID-19 has led to a massive increase in the use of digital technologies, which have become essential pillars of resilience in our cities. The workshop referred to COVID-19 in that regard. Indeed, cities have had to rapidly implement new digital policies to fulfill the demands of their residents. This implementation has raised questions about the inclusiveness and sustainability of digital technology in a constrained environmental context.

**3) Key achievements, announcements, launches, agreements, and commitments**

The International Telecommunication Union, through the voice of Mr. Malcolm Johnson, affirmed its willingness to enhance its collaboration with cities in the future.

The cities of Kigali, Tunis, Lyon, and Geneva, all, affirmed their commitment in favor of virtuous digitalization, one that is inclusive, sustainable, at the service of all citizens, and respectful of the environment.

**4) Main outcomes highlighting the following:**

**I. Debated Issues**

- **Please capture highlights of the main issues discussed and interactions with audience**
  - Digital technologies enable the development of services for the population. Be it in education, health, waste management, administration, etc., these technologies allow citizens to access more easily the services they need, and that the city provides.
  - Digital technologies, while empowering individuals, may also increase social and territorial divides.
  - Massive usage of digital technologies also constitutes a risk for the environment, insofar as they consume significant energy.

- **Please highlight key achievements and challenges shared by the audience and/or panellists**

- The Mayors who participated to this workshop (Tunis, Kigali, Geneva, Lyon) implementing numerous projects to develop their cities and the services they provide through digital technology.
- The digital initiatives of these cities seek to strengthen the solidarity between the territories and the relations with the national authorities.
- Cooperation and dialogue between all decision-making levels and exchanges between cities and civil society regarding best practices are necessary to ensure that digital technology does not increase territorial divides, but rather helps to reduce them.
- To mitigate the environmental risks linked to the use of digital technology, procedures can be implemented, as demonstrated by the city of Lyon: purchase of reconditioned equipment, maintenance contracts favoring “repair rather than throw away” , use of free-licensed software, carbon footprint of the ICT’s infrastructure and usage: all these solutions support a sober digital environment.

## II. Quotes

- **Please provide two important quotes from the session and the names & organisation of the person you are quoting**

- Mr Malcolm Johnson, Deputy Secretary General, ITU : *"Creating a more sustainable future means transforming cities towards a healthier, more sustainable, human-centric model. We can only achieve this if all parties involved work together, including cities, States, businesses and the citizens themselves."*
- Mr. Sami Kanaan, Mayor of Geneva, Member of the AIMF Bureau, President of the Geneva Cities Hub: *"If cities play a key role in the deployment, use and availability of digital technology, they also have a responsibility to protect the environment. Digital technology holds great promises, but it is also a real threat because it consumes a lot of energy. For this reason, the themes of frugality and energy savings are really important ones. "*

## III. Overall outcomes of the session highlighting

- **main conclusions reached during the discussion**
- **the vision for implementation of WSIS Action lines beyond 2015**

*Cooperation between cities themselves and also between cities and their national administrations is all the more important, given that cities must manage to deploy networks where they are needed, while limiting the use of digital technology where its consumption exceeds the needs and while raising awareness within the population about the need to reduce social fractures. The achievement of these multiple and sometimes antagonistic objectives can be supported by ITU through continuous and substantive dialogue with cities.*

- c. **Main linkages with the Sustainable Development Goals (please specify the SDGs)**

*SDG 9, 10, 11: Cities implementing digital technologies that are inclusive and with a minimal environmental impact do contribute to those 3 SDGs.*

**d. Emerging Trends related to WSIS Action Lines identified during the meeting**

*Supporting collaboration between ITU and cities, including by :*

- 1. Developing connectivity projects with cities.*
- 2. Implementing projects with cities to promote digital sobriety.*
- 3. Supporting the dynamics of reducing the digital divide by cities.*

**e. Suggestions for Thematic Aspects that might be included in the WSIS Forum 2022**

*Consider, for the 2022 WSIS Forum, to increase the engagement of mayors (and cities at large) in international debates around digitalization.*

## Enabling meaningful connectivity - myths and realities of current connectivity challenges

**Workshop Name:** Enabling meaningful connectivity - myths and realities of current connectivity challenges

**Workshop Link:** <https://www.itu.int/net4/wsis/forum/2021/Agenda/Session/298>

**Organization:** ESOA

**Date:** Tuesday, 4 May 2021

### 1) Relevance with the WSIS Action Lines – please specify the Action Lines C1 to C11:

- C1. The role of public governance authorities and all stakeholders in the promotion of ICTs for development
- C2. Information and communication infrastructure
- C3. Access to information and knowledge
- C4. Capacity building
- C5. Building confidence and security in the use of ICTs
- C7. ICT Applications
- C9. Media
- C11. International and regional cooperation

This pandemic has given much-needed momentum to tackling a long-standing problem: The Digital Divide, and highlights how this problem needs to be addressed as a priority; resetting existing policy approaches, which for the last few years, have been dominated by 5G.

We are now more conscious than ever that Internet access is fundamental for education, healthcare and simply the ability to work and earn a living. It is not a new challenge; it has been there for years, but still it is not bridged. Clearly, we need a new approach. There should be no excuse for making people wait for solutions that may never come when such solutions are here today. With the objective of achieving the common goals and WSIS Action Lines, all stakeholders will be key and specially governments that need to explore and prioritise access to connectivity by leveraging all solutions and support their efforts with national broadband budgets that focus on rural communities.

### 2) Did your workshop highlight any issues related to COVID-19? If yes, please explain.

#### During our workshop,

During Covid, internet was more important than ever. Access to information through satellite broadcasting was key in Africa but also for business to continue their work it was key to have internet to access grants as well as to continue with the sales.

During COVID, there was a lack of information in many remote locations and satellite broadcasting was key to keep them informed about the ways to protect themselves from COVID.

In regard to education, due to covid, a majority of students have suffered a decline in their learning. This shows just how important connectivity is, especially in covid times.

### **3) Key achievements, announcements, launches, agreements, and commitments**

- Many services around the world rely heavily on access to satellite connectivity. Without these services, the digital divide will increase and the quality of life of a large number of world citizens will be diminished.
- Satellite connectivity is a key piece of the puzzle to enable future opportunities for disadvantaged communities and bridge gender, educational, social, health, economic and other geographical divides.

### **4) Main outcomes highlighting the following:**

#### **X. Debated Issues**

- Refugees: Terrain, logistics and infrastructure are challenges that are found in the field. Satellite connectivity is key to ensure that services can be provided to refugees in camps, and support emergency responses. We shouldn't take for granted the commodities part of the world have like communicating with family or accessing health or education services.
- Start-ups: Startups and business that are trying to make a change in the world and have a social approach to business rely heavily on the internet to sell their products and also access grants and enter partnerships with other stakeholders. Satellite connectivity is key to providing equal opportunities to all those who do not live in the largest cities of the country and ensuring they can still count on good quality connectivity. The chances of survival for entrepreneurs with no internet are significantly lower than those who do have Internet access.
- Education: A significant part of the population lives outside metropolitan areas where infrastructure the terrain makes it difficult to deploy traditional communications infrastructure. The socio-economic situation of much of the African continent means access to affordable internet is a significant challenge.
- Broadcasting: The African continent relies on satellite TV and other solutions are a long way away. This service informs, entertains and keeps Africans in touch with the rest of the world.

Broadcasting during COVID was used to ensure dissemination of information vital for COVID and also for education purposes.

#### **I. Quotes**



- “Africa has its own unique challenges, less than 45% of the African population uses the Internet mostly because they live outside urban areas where the terrestrial infrastructure is deployed” – Siobhan Lynch, Avanti Communications
- “Satellite internet in rural areas is in many cases faster than terrestrial internet in urban areas; my business relies on social media for 90% of sales and on access to internet for partnerships, grants and awards” – Faith Aweko, Reform Africa

## II. Overall outcomes of the session highlighting

- Connectivity is a clear solution to bridge education, gender, information, health and economic divides and contribute to successfully achieving the SDGs. All technologies should be used wisely to ensure that citizens everywhere benefit without discrimination.
- Many services around the world rely heavily on satellite connectivity. Without it, the digital divide will increase and the quality of life of a large number of world citizens will be diminished.
- Affordability and deployment of infrastructure in difficult terrains are the main challenges in Africa. Satellite internet is key to connect these regions and provide ehealth, education services and bridge digital, social and gender divides.
- 5G will not arrive across Africa quickly and demand for it is lacking. It is important we make use of reliable, secure and quick deployable connectivity to support citizens around the world.
- Partnerships and innovative approaches are essential to deliver sustainable, transformational change.

## 5) Main linkages with the Sustainable Development Goals (please specify the SDGs)

Many international bodies are pooling their strengths to contribute to achieving the SDGs and implement the WSIS Action lines. However, we still face a lack of concrete action and outcomes that are necessary to ensure success on all fronts. In some instances, this relates to a lack of awareness of available solutions. Greater coordination between initiatives would be beneficial not only for the digital ecosystem but also for regulators and administrations. During the session on Meaningful Connectivity, we listened to real cases and explored initiatives and projects that can easily be replicated and are steps in the right direction to succeed in achieving the SDGs.

GOAL 4: Quality Education

GOAL 5: Gender Equality

GOAL 8: Decent Work and Economic Growth

GOAL 9: Industry, Innovation and Infrastructure

GOAL 10: Reduced Inequality

GOAL 11: Sustainable Cities and Communities

GOAL 13: Climate Action

## 6) Emerging Trends related to WSIS Action Lines identified during the meeting

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## 7) Suggestions for Thematic Aspects that might be included in the WSIS Forum 2022

- Exploring and working towards sustainable and scalable projects. What are the challenges and how to overcome them?

- How collaboration between stakeholders is key to enabling the digital future everywhere and avoid creating a digital chasm.
- Best practices and showcases of successful collaborations around bridging the Digital Divide – this is not an Objective that will be achieved within 1 year so is highly appropriate for next year as well.

## Exploring investments in connectivity

**Workshop Name:** Exploring Investments in connectivity

**Workshop Link:** <https://www.itu.int/net4/wsis/forum/2021/Agenda/Session/409>

**Organization:** ICC Business Action to Support the Information Society

**Date:** Friday, 7 May 2021

**1) Relevance with the WSIS Action Lines – please specify the Action Lines C1 to C11**

C1 – The role of governments and all stakeholders in the promotion of ICTs for development

C2 – Information and communication infrastructure: an essential foundation for an inclusive information society

C3 – Access to information and knowledge

C6 – Enabling environment

C11 – International and regional cooperation

**2) Did your workshop highlight any issues related to COVID-19? If yes, please explain.**

The workshop highlighted the importance of connectivity from a perspective that combines access (availability of affordable connectivity and devices), adoption (digital skills and readiness) and applications (e.g. education, healthcare, economic development). The COVID-19 pandemic has revealed deep disparities in access to affordable and meaningful connectivity. Those disparities need to be addressed to close the digital divide, which will be critical to ensure a good recovery from the crisis across countries, regions, as well as gender and social groups.

**3) Key achievements, announcements, launches, agreements, and commitments**

No new announcements, launches, agreements, and commitments were made at the workshop itself, although reference was made to the call to [Leave No One Behind: A People-Centered Approach to Achieve Meaningful Connectivity](#) launched during the High-level Thematic Debate on Digital Cooperation and Connectivity convened by the President of the UN General Assembly on 27 April 2021.

**4) Main outcomes highlighting the following:**

**X. Debated Issues**

- Please capture highlights of the main issues discussed and interactions with audience

The workshop started with a keynote speech by Candace Johnson, President, Johnson Paradigm Venture, Vice-Chair, NorthStar Earth and Space, and ICC Executive Board member, who underlined the importance of innovation, supported by private sector investment to deliver connectivity for all. She illustrated this point with a series of examples in her long career in the satellites industry.

The keynote speech was followed by a panel discussion centered around two main questions:

- What would human-centric connectivity policy solutions look like?
- What are the models and sources of financing that will enable us to reach the unconnected?

The speakers all highlighted the need to adopt a human-centric approach when talking about connectivity, and to ensure that the technologies put in place are adapted to people. To achieve this, Paul Mitchell, Senior Director, Technology Policy, Microsoft, highlighted the need to focus on skilling people up, and to have a global approach to evolution and innovation in policy, technologies and business models. Sonia Jorge, Executive Director, Alliance for Affordable Internet, built on this idea to express how the Alliance for Affordable Internet advocates for affordable and meaningful connectivity for all in order to empower people, and provide opportunities to improve their livelihoods, highlighting especially the need to close the digital gender divide. She also noted how digital skills must also include the ability to use the internet safely and privately.

Antonio Garcia Zaballos, Head of connectivity at InterAmerican Development Bank (IADB), focused on the importance of public-private partnerships and highlighted their role in reducing digital poverty. In the context of Covid-19, supporting countries to move forward in their efforts to build infrastructure, as that is essential for the resilience and continued development of different sectors, such as education, health, or security. The public sector can provide this support financially but also by putting in place flexible regulatory frameworks and models that support investments in connectivity. Collaboration between the public and the private sector is more important than ever to reduce digital poverty and make sure we build on the learnings from the Covid-19 pandemic and are better prepared in the face of potential future crises. He also underlined the importance of technology neutral regulations and the long-term financial sustainability of investments and business models they support.

Ana Valero, Director, Regulatory Affairs, Telefónica Hispam, underlined how different contexts might require different approaches for human-centric connectivity. She noted the differences in connectivity needs between urban and rural areas in Latin America. Rural areas are generally where the population has the lowest income, with poorer infrastructures (roads, electricity, etc.), and underdeveloped basic services like healthcare or education. It is therefore more complex to bring connectivity to these areas. She discussed how mobile connectivity can be an efficient technology to bring connectivity, as 50% of the devices people use to connect in rural areas are smartphones.

- Please highlight key achievements and challenges shared by the audience and/or panellists

Ana Valero, Director, Regulatory Affairs, Telefónica Hispam, reported on the “Internet para todos” initiative implemented to connect rural areas in Peru. In

Latin America, 100 million people live in unserved areas, 6 million in rural areas in Peru. Launched in 2019 by Telefonica, Facebook, CAF and the Inter-American Development Bank the “Internet para todos” project proposes a new, sustainable way of providing connectivity in rural areas, based on innovation both in technology and in commercial and operational activities. The project has already reached more than 2 million people in more than 12 000 communities.

Paul Mitchell, Senior Director, Technology Policy, Microsoft, talked about the work done by Microsoft on connectivity via its Airband project and the importance to consider policy initiatives holistically to create an enabling ecosystem that supports innovation, investments and partnerships by all stakeholders to reduce the digital divide. He also highlighted the need to adapt to changes, as the meaningful aspect of connectivity evolves over time. He also reminded the audience of the importance of public-private partnerships to achieve those goals in a sustainable way, and especially the need for flexibility in governments’ approaches when supporting future-proof infrastructures.

#### **XI. Quotes**

- Please provide two important quotes from the session and the names & organisation of the person you are quoting

##### **Paul Mitchell:**

“We need to focus on innovation on three different levels. We need innovation in policy, we need innovation in technology and innovation in business models that together will allow for the digital transformation we are all seeking.”

##### **Sonia Jorge:**

“A people centered approach, a human centered approach to connectivity has to be one that provides opportunities”

##### **Antonio Garcia Zaballos:**

“From the Latin American perspective, we are facing a different type of poverty, which we call digital poverty. Over the last year and a half, we have seen that every month of lockdown has implied levels of digital improvement and enhancement of around one year depending on the country. Countries have had to speed up on different levels: institutional, regulatory, policy and infrastructure levels.”

##### **Ana Valero**

“Connectivity, is very relevant. It is a condition required, but not sufficient for digitalization. We also face the challenge of skills and education. We also have a very important challenge that has to do with relevant use cases that bring people to connectivity. The private sector, but also the public sector has a very important role in creating these use cases.”

#### **XII. Overall outcomes of the session highlighting**

- main conclusions reached during the discussion  
The discussions highlighted the importance of innovating in infrastructures, partnerships models and business models in order to achieve a human-centric,

affordable and meaningful connectivity and to reduce the digital divide. The different speakers also agreed on the need to skill people up to improve access to connectivity, and to listen to their needs. This means being able to adapt to different situations, especially between rural and urban areas which often require different approaches to connectivity. Although the role of the private sector was considered essential in addressing the challenges faced by all, the public sector also has an important role to play to facilitate investments in connectivity, whether it is via governments or development banks. Public-private partnerships have proven to be successful in proposing sustainable and flexible solutions.

- the vision for implementation of WSIS Action lines beyond 2015

The WSIS Action lines aim to create and sustain an open and inclusive Information Society where governments, civil society, businesses, the technical community and international organizations could work together to achieve the full potential of ICTs for development, to bridge digital divides and leave no one behind.

The role of the WSIS Forum is to highlight the important activities and contributions the pursuit of the WSIS action lines can make. By highlighting the efforts made across the many UN agencies involved as well as the work of governments, business, civil society and others in making progress – the WSIS Forum is an annual opportunity to benchmark progress, share success stories and learning experiences and incentivize further action.

**5) Main linkages with the Sustainable Development Goals (please specify the SDGs)**

This workshop is strongly linked with Sustainable Development Goals 8 (decent work and economic growth), 9 (industry, innovation and infrastructure) and 10 (reduce inequalities).

**6) Emerging Trends related to WSIS Action Lines identified during the meeting**

The workshop highlighted that appropriate policies are at the center of the implementation of WSIS Action Lines for development and pointed to the growing need for partnership among all stakeholders to identify the timely, sustainable, and future-proof policies that enable innovation and investment necessary for the implementation of the WSIS Action Lines.

**7) Suggestions for Thematic Aspects that might be included in the WSIS Forum 2022**

WSIS Forum 2022 should seek in-depth discussions on connectivity and meaningful access to Internet and ICTs and how this contributes to bridging divides and closing gaps. The WSIS Forum mandate refers to taking stock of the progress made on the WSIS Action Lines. Thus discussions should also include presentations of collaborative initiatives and partnerships showcasing the lessons learned from local and regional projects aimed at advancing the Action Lines by enhancing connectivity, adopting digital technologies, and encouraging multistakeholder cooperation and public-private partnerships and investments.



## Rethinking post Covid-19 Mobility: Connectivity on the Move in the MENA region (Middle East and North Africa)

**Workshop Name:** Rethinking post Covid-19 Mobility: Connectivity on the Move in the MENA region (Middle East and North Africa)

**Workshop Link:** <https://www.itu.int/net4/wsis/forum/2021/Agenda/Session/324>

**Organization:** Viasat Inc.

**Date:** Thursday, 6 May 2021

### 1) Relevance with the WSIS Action Lines – please specify the Action Lines C1 to C11

- WSIS Action Line C2, as the discussions pertained to information and communications infrastructure and highlighted the role of ESIM in the development of an inclusive information society;
- WSIS Action Line C3, since satellite powered broadband and applications such as Earth Stations in Motion (ESIMs) provide connectivity everywhere, which in turn improves access to information and knowledge; and
- WSIS Action Line C7, as satellite-powered broadband facilitates the provision of ICT services, including healthcare, education, agriculture, etc.....

### 2) Did your workshop highlight any issues related to COVID-19? If yes, please explain.

Covid-19 brought about rapid changes in work patterns, leading many sectors to adapt their business models to remote working, which required reliable connectivity. Satellite-powered broadband is essential to meeting the increasing demand for connectivity, particularly in remote and rural areas. ESIM provide connectivity in air, at sea and on land. This facilitates economic recovery by supporting airlines, the oil and gas industry and the provision of education and healthcare services.

Ryan Johnson, Senior Director – Viasat, highlighted the importance of satellite-powered broadband for achieving the WSIS Action lines and the Sustainable development goals. He further emphasized and demonstrated how ESIM are used by airlines to provide continuous broadband connectivity for passengers and crew regardless of where they are, as well as to travelers in countries and areas without terrestrial network coverage.

In addition, Eng. Tariq Al Awadhi, Executive Director – Spectrum Affairs at Telecommunications and Digital Government Regulatory Authority (UAE), highlighted the Emirati government's response to the Covid-19 pandemic and TDRA's efforts to facilitate the deployment of ESIM in response to Covid-19.

### 3) Key achievements, announcements, launches, agreements, and commitments

Representatives of the Emirati Telecommunications and Digital Government Authority and the League of Arab States announced the recent launch of a dedicated working group on telecommunications development and non-WRC related spectrum issues, under the auspices of the Arab Spectrum Management Group's (ASMG). The ASMG is encouraging wide participation from interest stakeholders during the upcoming meetings of the Working Group (WG6).



The UAE Telecommunications and Digital Government Regulatory Authority announced it had developed or updated a substantive number of regulations (22-23) to facilitate the use of different types of technologies and services, and the League of Arab States signaled its willingness to partner and collaborate with stakeholders.

Viasat announced the upcoming launch of its Viasat-3 constellation, which will provide global coverage and broadband connectivity through 3 high throughput Ka-band satellites. Finally, although a challenging task, the representative of ADES emphasized the oil and gas industry's commitment to achieving net 0% carbon emissions by 2050.

#### **4) Main outcomes**

##### **I. Debated Issues**

The main issues discussed included:

- The broader impacts of Covid-19 on people and industries, and the increased dependence on connectivity and satellite-powered broadband.
- The need for regulatory harmonization across MENA to facilitate the deployment of ESIM.
- The need for increased multistakeholder collaboration and cooperation for technological harmonization across MENA.
- The prospects of using ESIM for search and rescue and emergency telecommunications operations; Viasat Inc. representative Ryan Johnson detailed how ESIM technology allows vessels to network together for improved crisis response.
- Key achievements for ESIM connectivity. Notably, the UAE has developed service-specific regulations, including for ESIMs, which are reviewed every year alongside any technological changes. The regulatory process is aligned with international best practices, whilst facilitating access to technology. It was further noted that the UAE government is also placing significant importance on emerging technologies, which other countries should work towards achieving as well.
- The positive impact of ESIM on the aviation industry and how airlines are utilizing satellite-powered broadband to provide better service for passengers while, at the same time, supplying crews with more robust data and analytics.
- The challenges faced by the oil and gas industry and how satellite-powered broadband enables business continuity and carbon reduction in the sector.

##### **II. Quotes**

**“ESIM is part of a toolkit that governments rely on during crises and disasters”** – Ryan Johnson, Senior Director, Global Market Access & Government Affairs, Viasat Inc.

##### **III. Overall Outcomes of the Session**

The session noted that:

- ESIM provide connectivity everywhere, in air, at sea and on land.

- Government prioritization and regulatory harmonization, aligned with international standards and best practice, are required to facilitate the deployment of ESIM across the MENA Region.
- ESIM deployment is essential to meet new work and social patterns that have increased the demand for connectivity during Covid-19.
- ESIM deployment will facilitate the Covid-19 recovery by promoting economic growth and moving MENA region countries towards a knowledge-based economy.
- ESIM applications are critical for the aviation, oil and gas, and tourism Industries, as well as for emergency services involved in search and rescue operations.

#### **5) Main linkages with the Sustainable Development Goals**

- Goal 1: No poverty (more connectivity, better socio-economic development);
- Goal 8: Decent work and economic growth (impact of mobility and connectivity on increase in productivity and satellite-powered broadband's impact on access to digital skills and tools);
- Goal 9: Industry, innovation and infrastructure (hyper connectivity and mobility and impact on innovation); and
- Goal 11: Sustainable cities and communities (how satellite-powered connectivity contributes to the management of carbon emissions and enabling sustainable communications).

#### **6) Emerging Trends related to WSIS Action Lines identified during the meeting**

ESIM was identified as an emerging technology application, which will revolutionize connectivity on the move.

#### **7) Suggestions for Thematic Aspects that might be included in the WSIS Forum 2022**

- Connectivity on the Move: How Satellite-powered Broadband Contributes to the WSIS Action Lines and the Sustainable Development Agenda.

## Measuring the information society using new data sources

**Workshop Name:** Measuring the information society using new data sources

**Workshop Link:** <https://www.itu.int/net4/wsis/forum/2021/Agenda/Session/407>

**Organization:** Partnership on Measuring ICT for Development

**Date:** Thursday, 6 May 2021

### 1) Relevance with the WSIS Action Lines – please specify the Action Lines C1 to C11

- The aim of the Partnership on Measuring ICT for Development is to improve the availability of information society statistics across the spectrum. The outcomes of its work are thus relevant to monitoring of implementation of the action lines. The session at the WSIS Forum 2021 is particularly pertinent to the following: C1 (national statistical systems producing ICT indicators for policy making), C2 (measuring ICT infrastructure), C3 (measuring access to information), C4 (building capacity on ICT statistics), C6 (measuring enabling environment), C7 (measuring e-government, e-business, e-learning, e-waste), C11 (international cooperation in ICT statistics).

### 2) Did your workshop highlight any issues related to COVID-19? If yes, please explain.

- The ability of national statistics office to collect data through in-person surveys was severely hampered by the pandemic.

### 3) Key achievements, announcements, launches, agreements, and commitments

- ITU shared the results of its pilot project on using mobile phone big data for measuring the information society, particularly the Handbook on Mobile phone big data to measure SDG ICT indicators, and the results of the two pilot use cases in Brazil and Indonesia.
- UNCTAD published its new Manual on the Production of Statistics on the Digital Economy , at [https://unctad.org/system/files/information-document/ecde\\_StatisticsManual\\_2020\\_en.pdf](https://unctad.org/system/files/information-document/ecde_StatisticsManual_2020_en.pdf)
- UN-DESA is launching its next e-Government survey in 2022.

### 4) Main outcomes highlighting the following:

#### I. Debated Issues

- Big data will become increasingly important to complement official statistics in the measurement of developments in the information society, so that relevant information is available for timely digital policies.

- Challenges related to the use of big data, including limited or no access to private sector data, lack of skills to use big data in national statistics offices in many developing countries, and Lack of the necessary infrastructure to host and analyse big data.

## II. Quotes

## III. Overall outcomes of the session highlighting

- The session sought answers to the questions how statistical offices can collect data in innovative ways? Are there new tools out there that we can use? Can they use big data sources to complement official statistics and better meet their objectives for providing timely and accurate evidence for policy-making? In particular, the session included presentations on the use of mobile phone data to calculate the two SDG indicators; i) 9.c.1 – Percentage of population covered by mobile network: 2G, 3G and 4G and above (administrative data) and ii) 17.8.1 – Percentage of population using the Internet (household survey data). The session also showcased the importance of using new data sources/big data to complement or supplement existing data particularly in measuring digital economy.
- Partnership with national stakeholders is key in successful implementation of big data use; international organizations can help facilitate access to privately-held data in the digital economy (such as from multinational online platforms)
- Efforts and experiences of countries and international agencies (such as UNSD, ITU) can help build skills in developing countries.
- Countries can request assistance from agencies with experience working with big data.

### 5) Main linkages with the Sustainable Development Goals (please specify the SDGs)

- The relevance of ICT statistics to monitoring progress in the SDGs has been discussed in previous editions of the WSIS Forum. ICT indicators complement the SDG monitoring framework. The Partnership's thematic list of ICT for SDG indicators is available at <https://unstats.un.org/unsd/statcom/51st-session/documents/2020-23-ICT-E.pdf>.

### 6) Emerging Trends related to WSIS Action Lines identified during the meeting

- Use of mobile phone big data to measure the information society and other areas of official statistics
- Use of web scraping to measure e-commerce and the digital economy

### 7) Suggestions for Thematic Aspects that might be included in the WSIS Forum 2022

Session to showcase more use cases that countries have done to measure their information societies, going beyond mobile phone data and webscraping.

## Building Resilient Digital Infrastructure

**Workshop Name:** Building Resilient Digital Infrastructure

**Workshop Link:** <https://www.itu.int/net4/wsis/forum/2021/Agenda/Session/447>

**Organization/Country:** Rwanda

**Date:** Friday, 7 May 2021

**1) Relevance with the WSIS Action Lines – please specify the Action Lines C1 to C11**

C2, C5, C7

**2) Did your workshop highlight any issues related to COVID-19? If yes, please explain.**

Yes. The panelists reiterated the role of broadband infrastructure and digital financial services (Mobile Money) during the pandemic.

**3) Key achievements, announcements, launches, agreements, and commitments**

The World Bank announced its plan to finance Digital acceleration projects in Rwanda.

**4) Main outcomes highlighting the following:**

**I. Debated Issues**

- Rwanda Digital Transformation Journey and Rwanda’s Digital Infrastructure landscape
- Building resilient Networks and future Networks: The way forward.
- Potential of the digital economy.
- Rwanda’s Digital Government success story.
- Digital Financial Inclusion and fostering the security of Digital Financial services.
- **Please highlight key achievements and challenges shared by the audience and/or panelists**
- The Government of Rwanda has digitalized about 100 services on the Irembo platform
- Rwanda has reached 93% financial inclusion and Digital financial services are playing an important role.
- The geographical coverage of 4G LTE in Rwanda is above 96%.
- The audience requested the clarification on data protection and privacy laws in Africa and harmonization of laws. The panelists clarified that Rwanda drafted the data protection and privacy law and different entities have sector regulations related to data protection. Smart Africa Secretariat is spearheading the harmonization of data protection and privacy laws in Africa.

**II. Quotes**

- "Policies and regulation issues have been shown to be extremely powerful tools to build a resilient network" Aminata, ITU.
- "There is a need to create an environment that makes it possible for young people to start very creatively innovative business ideas, but not just in the Rwandan market but scale up across the region, across Africa. Rwanda has positioned itself as a test bed or proof of concept nation" Wilson Muyenzi, WB.

### **III. Overall outcomes of the session highlighting**

- Rwanda reiterated its commitment and enthusiasm to partner with the WSIS
- World Bank's support to finance the digital acceleration project in Rwanda that will enable Rwanda to implement WSIS action lines

#### **5) Main linkages with the Sustainable Development Goals (please specify the SDGs)** SDG 8, 9,12,16,17

#### **6) Emerging Trends related to WSIS Action Lines identified during the meeting**

- Digital financial services
- Digital government services
- Resilient digital infrastructure

#### **7) Suggestions for Thematic Aspects that might be included in the WSIS Forum 2022**

"Building resilient broadband infrastructure and secure digital platforms through digital cooperation. Lessons learnt during the pandemic".

## WSIS Forum 2021 Highlights and Key Achievements

**Workshop Name:** WSIS Forum 2021 Highlights and Key Achievements

**Workshop Link:** <https://www.itu.int/net4/wsis/forum/2021/Agenda/Session/278>

**Organization/Country:** WSIS

**Date:** Monday, 17 May 2021

### 1) Relevance with the WSIS Action Lines – please specify the Action Lines C1 to C11

The session covers many of the WSIS action lines and many speakers and panelists of the 2021 forum highlighted their achievements and outcomes.

- C1. The role of governments and all stakeholders in the promotion of ICTs for development
- C2. Information and communication infrastructure
- C3. Access to information and knowledge
- C4. Capacity building
- C5. Building confidence and security in the use of ICT's
- C6. Enabling environment
- C7. ICT applications: benefits in all aspects of life
- C8. Cultural diversity and identity, linguistic diversity and local content
- C10. Ethical dimensions of the Information Society
- C11. International and regional cooperation

### 2) Did your workshop highlight any issues related to COVID-19? If yes, please explain.

- Panelists highlighted the digital acceleration of technology in wake of COVID-19.
- Realization of the importance of ICT's in communication, business, and society in the wake of COVID-19
- COVID-19 and Public Access: Supporting users in light of rapid digitalization; remote support and services required
- Increased demand for connectivity, safety, and digital skills due to COVID-19
- Strengthened multistakeholder approach to boost digital transformation
- Risk of digital exclusion for persons with disabilities and the elderly population due to COVID-19

### 3) Key achievements, announcements, launches, agreements, and commitments

- The WSIS Forum 2021 brought together more than 1000 participants from over 180 countries in the more than 200 sessions that have been held in the 15 weeks since starting in January and has had more than 20,000 views on our Facebook session recordings.
- The 2021 Forum included new activities such as a fully virtual hackathon



- A series of Facebook live interviews with stakeholders discussing Impact of COVID-19 on their work.
- New special tracks introduced such as ICT's for well-being and happiness and emerging technologies for sustainable development

#### 4) Main outcomes highlighting the following:

##### I. Debated Issues

- n/a

##### II. Quotes

“During this challenging period, I am very pleased that the virtual format of the Forum has been so much appreciated by all stakeholders it's enabled much more increased participation and meaningful collaboration, cooperation and coordination across the world. As the pandemic continues to isolate us, this forums collaborative spirit has been a shining testament to our resilience.”

- *Malcolm Johnson, Deputy Secretary General, ITU*

And as you may know, the world's first global normative instrument on the ethics of artificial intelligence will be considered for adoption at UNESCO.

- *Joe Hironaka, Programme Specialist Digital Innovation and Transformation Communication and Information Sector, UNESCO*

Transformation and acceleration due to COVID-19, there is a pandemic force and people begin to turn towards the use of computers more and more.

- *Alfredo M. Ronchi, Secretary General, MEDICI Framework of Cooperation*

##### III. Overall outcomes of the session highlighting

n/a

#### 5) Main linkages with the Sustainable Development Goals (please specify the SDGs)

SDG 8: Decent work and economic growth

SDG 9: Industry, innovation, and infrastructure

SDG 10: Reduced Inequalities

SDG 11: Responsible consumption and production

SDG 16: Peace, justice, and institutions

SDG 17: Partnerships for the goals

#### 6) Emerging Trends related to WSIS Action Lines identified during the meeting

- IEEE discussed emerging trends such as how smart energy with focus on affordable sustainable and renewable energy resources can enable effective ICT powered solutions.
- IFIP IP3 discussed their vision to make online learning available to end-users and consumers of digital products to a greater extent than before as well as establishing global standards of skills and competencies related to cyber security for practitioners and end-users.

- Cyber peace institute discussed the emerging trends of ransomware attacks on healthcare supply chains have risen in the time of COVID-19.
- ITU-D discussed international coordination remains a challenge in relation to multidimensional cybersecurity measures.
- E-seniors association discussed the need for all ages to build resilient capacities in order to react to crises regarding ICT's and internet enabled technologies.
- ITU intersector Rapporteur Group discussed new immersive media technologies continue to be developed.
- ITU-World Bank discussed Broadband mapping initiative helps ensure efficient and effective broadband deployment in underserved areas.

**7) Suggestions for Thematic Aspects that might be included in the WSIS Forum 2022**

n/a

## **Special Tracks**

# ICTs and Gender Mainstreaming Special Track

Opening of the ICTs and Gender Mainstreaming special track

**Workshop Name:** Opening of the ICTs and Gender Mainstreaming special track

**Workshop Link:** <https://www.itu.int/net4/wsis/forum/2021/Agenda/Session/112>

**Organization:** WSIS

**Date:** Monday, 8 March 2021

## 1) Relevance with the WSIS Action Lines – please specify the Action Lines C1 to C11

The gender element is cross-cutting through all WSIS Action Lines and Sustainable Development Goals. This is also enforced by the 50/50 gender participation challenge set forth by the WSIS Forum to ensure women participation and empowerment in all ICTs related areas, therefore in WSIS Action Lines. The below are the WSIS Action Lines that are the most relevant to gender mainstreaming in and through ICTs, as well as the ones that have been directly or relatively discussed during the High-Level Opening of the ICTs and Gender Mainstreaming special track:

C1. The role of governments and all stakeholders in the promotion of ICTs for development

C3. Access to information and knowledge

C4. Capacity building

C6. Enabling environment

C7. ICT applications

C8. Cultural diversity and identity, linguistic diversity and local content

C11. International and regional cooperation

## 2) Did your workshop highlight any issues related to COVID-19? If yes, please explain.

Yes, the panelists stressed on the detrimental impact of the COVID-19 pandemic on the issue of gender mainstreaming in ICTs, such as the increased burden on women's work-life balance, and connectivity issues.

## 3) Key achievements, announcements, launches, agreements, and commitments

- EQUALS global partnership <https://www.equals.org>

- Code camps in Americas and African regions – ITU
- International Girls in ICT day – ITU <https://www.itu.int/women-and-girls/girls-in-ict/>
- Generation equality technology and innovation action coalition co-led by UN Women – ITU
- COVID Women’s council; specific proposal to help women facing difficult times because of economic crisis as a result of COVID pandemic – Ministry of Women and Gender Equity, Chile

#### 4) Main outcomes

##### I. Debated Issues

- **Gender inequality in leadership positions**

It was unanimously agreed by the panelists that one of the greatest challenges in achieving gender equality in ICTs, as well as in other fields, is the low number of women in leadership and management roles.

Ms. Doreen Bogdan-Martin, BDT Director, ITU, stressed on the fact that women aspiring for leadership positions still face discrimination: they are precepted as less natural leaders, and when wanting to counter this perception, they were regarded as inauthentic. Currently, only 13% of regulators are women, about the same is the case in ICT ministries. According to a survey from last year, women are outnumbered by men by 3 to 1 in the private sector, they are less paid, and promotion is rare. She also reiterated further challenges that still need to be tackled: entrenched power struggles, ingrained prejudices, inflexible organizational attitudes that make it harder for women to balance professional and personal struggles.

In Chile, there is a low proportion of women in STEM careers with 25% and in tech companies with 5%. H.E. Ms. Pamela Gidi, Deputy Minister, Undersecretary of Telecommunications, Undersecretariat of Telecommunications, Chile, reiterated the importance of tackling this issue and highlighted the aspirations for gender parity in the Ministry where 46% of the workforce are women. She further outlined the challenges brought about by the COVID-19 pandemic such as lack of connectivity, inability to work remotely, and a rise in women’s responsibilities.

Dr. Mercedes Aramendia, President of the Board, Uruguayan Communications Regulator – URSEC, Uruguay, upheld the conversation with staggering statistics from 2019 Fortune 500 list which registered the highest ever percentage of women CEOs in tech companies – 6.6%. She also mentioned that only 6% of Nobel Prize for intellectual and academic achievements were awarded to women. Furthermore, she stated that social and cultural norms affect achieving gender equality.

- **Need for structural changes**

Mr. Mario Fócil, Operational Secretary, Administration at Federal Court of Administrative Justice, Mexico, outlined the need for modifying structural conditions that make inequality possible. Accordingly, there are four challenges:

1. Prevailing culture of gender assigned roles: domestic work, caring for other people on women's shoulders.
2. Lack of proper working conditions: flexible hours, teleworking, etc. Domestic burden is increased, particularly with the COVID-19 pandemic.
3. Gender stereotypes as obstacles to women's interest in STEM.
4. Absence of opportunities for graduates, difficulty in incorporating skills into practice.

- **Wise use of ICT tools to promote gender equality**

Mr. Loïc Hervé, Secretary of the Senate, Senate, France, highlighted the work of CNIL, the National Commission on Informatics and Liberty, a regulatory body whose mission is to protect public freedom by preserving personal data. He pointed out that during these fast-paced times, it is essential to understand that digital dimensions concern not only economic issues, but a variety of challenges. Citing the SDG 5 and 9, he reiterated the importance of adopting a holistic view on dealing with societal challenges brought by modernity. According to him, ICTs can be a tool to promote gender equality, and technology is a progress only if properly framed in the interest of citizens.

- **Behavioral aspects**

Starting with stating a number of barriers - access to technology, connectivity, affordability, and building a regulatory environment - Mr. Andrew W. Wyckoff, Director, Directorate for Science, Technology and Innovation, OECD, brought a new flow to the discussion: it is less about the technology, and more about the behavioral aspects. He stressed on the fact that the whole pipeline needs analysis. From 0 to 15 years girls outnumber boys in STEM, after which social, cultural norms and stereotypes come into play. Another case for low number of girls and women is the gender of professors and the question of how to bring more women in to these positions remains open. One more example is publication issues: the post-doc period mostly coincides with child-bearing period due to which most women fall out. According to Mr. Wyckoff, there is a need for changing attitudes in the system so that there is a balanced approach.

- **ICTs and gender-based violence**

Ms. Kirthi Jayakumar, Founder, The Gender Security Project, India, who taught herself to code to help the survivors of gender-based violence mentioned another issue in ICTs: lack of proliferation in a manner that is equal and accessible. An example included the so-called husband's phone and wife's phone in India, where the former was a smartphone with all the latest functionalities, whereas the latter was fundamentally functional meaning it had no capacity to install applications, browse web, etc.

## II. Quotes

*"It would take 130 years to reach parity in heads of governments if we keep at the current pace"*

- Ms. Doreen Bogdan-Martin, Director, Telecommunication Development Bureau (BDT), International Telecommunication Union

*“ICTs are enablers of human rights”* - Mr. Mario Fócil, Operational Secretary, Administration at Federal Court of Administrative Justice, Mexico

### **III. Overall outcomes of the session**

- Digital technologies are nurturing the culture of participation rather than the old command-and-control approach.
- There is a need in collaborative style. Female leaders prove better prepared to new demands.
- Women tend to employ more participative leadership style, more likely to share power and leadership.
- Transparency, inclusiveness, dialogue and consensus-building. Many women naturally demonstrate these skills.
- Multistakeholder approach is key. All levels of society need to collaborate.
- Recognize Women as agents of growth and sustainability
- Digital transformation accelerated by the pandemic needs to be used as an opportunity to empower women.
- There is a need for talent management policies in tech companies that modify work environments to reduce gender gap.
- Redesign the process of recruitment, competition, selection, appointment of women traditionally discriminated by gender at workplace.
- Achieve balance between merit and affirmative action.
- Change cultural norms. Analyze the whole pipeline.
- Liaise with frontline organizations to help survivors of gender-based violence and promote bystander intervention to make a change.

### **5) Main linkages with the Sustainable Development Goals (please specify the SDGs)**

The gender element is cross-cutting through all the Sustainable Development Goals (SDGs). The below are the SDGs that are the most relevant to gender mainstreaming in and through ICTs, as well as the ones that have been directly or relatively discussed during the High-Level Opening of the ICTs and Gender Mainstreaming special track:

Goal 3. Good health and well-being

Goal 4. Quality education

Goal 5. Gender Equality

Goal 8. Decent work and economic growth

Goal 9. Industry, Innovation, and Infrastructure

Goal 10. Reduced inequalities

Goal 17. Partnership for the goals

#### **6) Emerging Trends related to WSIS Action Lines identified during the meeting**

The panelists identified the ways of closing the gender gap in ICTs aligned with the WSIS Action lines such as promoting participatory approach, multistakeholder approach, capacity building, enabling environment, and global partnerships.

#### **7) Suggestions for Thematic Aspects that might be included in the WSIS Forum 2022**

The proposed analysis of system structure, behavioral aspects, promoting women to leadership positions, and facilitating dialogue around ICT tools to help drive social justice could all be considered as thematic aspects for future workshop at the WSIS Forum 2022.



## Women engineers and scientists unlocking their potential

**Workshop Name:** ICTs and Gender Mainstreaming track: Women engineers and scientists unlocking their potential

**Workshop Link:** <https://www.itu.int/net4/wsis/forum/2021/Agenda/Session/242>

**Organization:** WOMENVAI and the World Federation of Engineering Organizations/ SWISS ENGINEERING Geneva

**Date:** Monday, 8 March 2021

## Telehealth facilitated health ecosystems in rural/war afflicted areas during covid - Case Studies

**Workshop Name:** Telehealth facilitated health ecosystems in rural/war afflicted areas during covid - Case Studies

**Workshop Link:** <https://www.itu.int/net4/wsis/forum/2021/Agenda/Session/244>

**Organization:** MedRet Healthcare Ltd

**Date:** Wednesday, 10 March 2021

## Conversation with ITU Deputy Secretary-General on ICTs and Gender Mainstreaming

**Workshop Name:** Conversation with ITU Deputy Secretary-General on ICTs and Gender Mainstreaming

**Workshop Link:** <https://www.itu.int/net4/wsis/forum/2021/Agenda/Session/256>

**Organization:** WSIS

**Date:** Monday, 8 March 2021

## Women Empowerment using the Digital Technology

**Workshop Name:** Women Empowerment using the Digital Technology

**Workshop Link:** <https://www.itu.int/net4/wsis/forum/2021/Agenda/Session/114>

**Organization:** Association of Scientists, Developers and Faculties

**Date:** Tuesday, 9 March 2021

## Agribusiness tech solutions for a sustainable society in rural regions of the world

**Workshop Name:** Agribusiness tech solutions for a sustainable society in rural regions of the world

**Workshop Link:** <https://www.itu.int/net4/wsis/forum/2021/Agenda/Session/246>

**Organization:** WOMENVAI and the World Federation of Engineering Organizations

**Date:** Tuesday, 9 March 2021

## Inspiring women leaders in ICT landscape

**Workshop Name:** Inspiring women leaders in ICT landscape

**Workshop Link:** <https://www.itu.int/net4/wsis/forum/2021/Agenda/Session/116>

**Organization:** WSIS

**Date:** Wednesday, 10 March 2021

## From Discriminators to Characteristics: How a Fair A.I. will Improve Human Life

**Workshop Name:** From Discriminators to Characteristics: How a Fair A.I. will Improve Human Life

**Workshop Link:** <https://www.itu.int/net4/wsis/forum/2021/Agenda/Session/117>

**Organization:** Women's Brain Project

**Date:** Thursday, 11 March 2021

### 1) Relevance with the WSIS Action Lines – please specify the Action Lines C1 to C11

The ICTs and Gender Mainstreaming track has clear linkages to five of the WSIS Action Lines:

- C1: Information and communication infrastructure
- C3: Access to information and knowledge
- C5: building confidence and security in the use of the ICTs
- C7: ICT Applications (E-health, E-learning and E-science)
- C10: Ethical dimensions of the Information Society

### 2) Did your workshop highlight any issues related to COVID-19? If yes, please explain.

It discussed, in general, what are the relevant actions to be taken for gender equality in tech and precision medicine. Although COVID-19 was only vaguely mentioned during the workshop, the gender dimension has not to be forgotten in decision making during and after the pandemic.

### 3) Key achievements, announcements, launches, agreements, and commitments

The workshop shed light on the importance of having more attention to gender equality in tech and precision medicine. The experts agreed to interact in the next months for turning some ideas into action (e.g. promote inclusivity and research activates in this area).

### 4) Main outcomes highlighting the following:

#### I. Debated Issues

- Biased data leads to biased AI outcomes.
- Each speaker presented different aspects of gender equality. From the need of hiring more female researchers in STEMS to showing how Natural Language

Processing techniques may be gender biased, to finally promote precision medicine for longevity, each speaker contributed with their expertise.

## II. Quotes

- “Gender bias exists and affects many different NLP applications – but, on the good side, it gender bias is finally the focus of many NLP researchers”, Hila Gonen (Amazon)
- “Data don’t lie... Really? Let’s have data speak the “truth””, Piera Marongiu (Guest Lecturer and CEO Fachhochschule Nortwestschweiz Founder; Integrate Include Engage)
- “Intersectionality of characteristics is a must”, Piera Marongiu (Guest Lecturer and CEO Fachhochschule Nortwestschweiz Founder; Integrate Include Engage)

## III. Overall outcomes of the session highlighting

- Inclusivity means to understand the peculiarities of each one of us, rather than focusing on the differences. This should lead our approach towards inclusivity.
- To ensure equitable outcomes of AI for health, it is crucial to distinguish between two types of observable differences in the data used for training AI systems: factual differences, such as scientifically supported and medically relevant observations, enabling personalized and precision medicine; artefactual differences, such as biases and errors in data generation and selection, magnifying discrimination and inequality.

## 5) Main linkages with the Sustainable Development Goals (please specify the SDGs)

The ICTs and Gender Mainstreaming track has clear linkages to several SDGs:

- Goal 3. Ensure healthy lives and promote well-being for all at all ages.
- Goal 5. Achieve gender equality and empower all women and girls.
- Goal 10. Reduce inequality within and among countries.
- Goal 16. Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels.
- Goal 17. Strengthen the means of implementation and revitalize the global partnership for sustainable development.

## 6) Emerging Trends related to WSIS Action Lines identified during the meeting

Emerging trends identified during the meeting include:

- Educational strategies to ensure effective knowledge transfer from domain experts to society.
- Inclusion of vulnerable groups and minorities into cycle of AI development.
- Uptake and further development of explainable and human-interpretable AI models.
- Implementation of equitable principles for scientific data governance and stewardship.

## 7) Suggestions for Thematic Aspects that might be included in the WSIS Forum 2022

Personalized and precision medicine are likely to be major topics in the coming years. The raising needs together with the opportunities offered by the new technologies (including but not limited to



AI) make these topics crucial to define the future society. Having a healthcare system that develop tailored treatments rather than apply the one-size-fits-all paradigm is becoming an imperative. To achieve this goal, we need a medicine that is also more aware of individual characteristics, and treat them as features rather than as discriminants.

## Raising the voice of women entrepreneurs in strategic socioeconomic sectors

**Workshop Name:** the voice of women entrepreneurs in strategic socioeconomic sectors

**Workshop Link:** <https://www.itu.int/net4/wsis/forum/2021/Agenda/Session/243>

**Organization:** WOMENVAI and the World Federation of Engineering Organizations

**Date:** Thursday, 11 March 2021

### 1) Relevance with the WSIS Action Lines – please specify the Action Lines C1 to C11

- C1. The role of governments and all stakeholders in the promotion of ICTs for development
- C2. Information and communication infrastructure: an essential foundation for an inclusive information society
- C3. Access to information and knowledge
- C4. Capacity building
- C6. Enabling environment
- C7. ICT applications
  - E-applications
  - E-business
  - E-employment
  - E-health
- C8. Cultural diversity and identity, linguistic diversity and local content
- C11. International and regional cooperation

### 2) Did your workshop highlight any issues related to COVID-19? If yes, please explain.

Issues such as COVID-19 impact on women entrepreneurs, women's roles at home and at work, the negative impact on female presence in STEM areas were discussed.

### 3) Key achievements, announcements, launches, agreements, and commitments

- WOMENVAI <http://www.womenvai.org>
- People-centered internet <https://peoplecentered.net>
- Digital Champion Project <https://hopeforgirlsandwomen.com/digital-champions/>
- WIL, Women in Leadership <https://www.wileurope.org/>
- Femmes de santé <https://www.femmesdesante.fr/>

- eTrade for Women, UNCTAD <https://unctad.org/topic/ecommerce-and-digital-economy/etrade-for-women>
- Jasmeen Incubator <https://www.jasmeen.co>

#### 4) Main outcomes

##### I. Debated Issues

###### • Empathy and action

The first speaker of the session Ms. Yvette Ramos, Expert and International Consultant, Cofounder of WOMENVAI, Managing Director, Intellectual Property Law Firm, Switzerland, shared the key outcomes from her experience of more than 20 years in ICTs. With inspiring stories from her professional and personal life, she highlighted the importance of empathy and developing personal skills. According to her, it is a necessity to have an objective in life, and in order to succeed one has to gain a set of skills, in her case entrepreneurship skills, and ability to build partnership between private and public sectors. Another key takeaway was the urge to take action. Not only should one be able to speak and discuss but also ACT. She also shared the work done by the WOMENVAI, an NGO, which they align with the SDGs. The following three challenges were identified:

1. Healthcare
2. Education, STEM
3. Gender equality

###### • Knowing one's roots

Ms. Mei Lin Fung, Chair and Cofounder, People Centered Internet, realized that the world was going to change and that she wanted to be part of it when she was 14 years old back in the days in Singapore, her home country. She is known as the *godmother* of CRM, as she is the co-developer of the first CRM technology. One of the main challenges she faced was that the industry took a completely different direction from what she originally intended: the CRM was supposed to be a relationship between the businesses and the customers, whereas in reality the businesses had the majority of control over the systems while the customers seemed to have little to no control at all. The problem was clear: the digital space would not take into account our families, our cultural roots. With further elaboration on the subject, she advised the women and generations to dream big, to always remember and seek help from one's deep cultural roots, family and friends. With the words "*we must make sure that the digital world is not a mancave*" she set forth the challenge for women to speak up on.

###### • Maps and female genital mutilation (FGM)

The next speaker, Ms. Janet Chapman, Chair of Tanzania Development Trust and Founder of Crowd2Map, Tanzania Development Trust, Tanzania, delivered a powerful presentation on the role of ICTs in combatting FGM in rural and remote areas of Tanzania, which are poorly mapped. By training local activists to map the villages in Tanzania, they help the survivors and potential targets of FGM, particularly during the cutting season. Over the course of the last 5,5 year and with the help of over 60 thousand volunteers they have mapped the villages, helped the survivors of FGM, and contributed a great deal to decreasing the death rate among young girls. The current challenges include unavailability of quality phones, a smaller number of women activists as most of them do not own phones, connectivity and electricity issues, low level of literacy, financial measures, among others. However, Ms. Chapman believes that by empowering local activists they impact the lives of many more in the long term.

- **Networking, support and the voices of minorities**

Ms. Pauline Derrien, Manager E-Health, Orange Consulting, France, highlighted the power of networking that aids women promote their projects and advance their careers. She shared her experience in various committees and projects such as the W, Women in Leadership (WIL), and *Femmes de santé (women in healthcare)*. According to the statistics she shared, in healthcare industry more than half of workforce are women, and most paramedics are women. However, on the high-level positions only 15% of the workforce are female, and only 7% are women in surgery. Thus, she outlines the gender inequality in career development. Furthermore, she shared some of the measures they have been taking to help promote women by sharing ideas and initiatives, building networks, promoting women's projects, launching annual talent programs, and many more.

By reiterating the fact that 50% of women are still not online (ITU), Ms. Viridiana Garcia-Quiles, Programme Management Officer, eTrade for Women, UNCTAD, Switzerland, talked about the barriers women face in entrepreneurship such as lack of trust, raising funds, and skills gap. The eTrade for Women by UNCTAD was created to help women from developing countries to leverage their skills and gain visibility of their businesses. *"If we don't bring more of these women on board, we are missing on a huge potential"* said Ms. Garci-Quiles by addressing the number of activities they do: capacity-building, building networks, bringing more women to the policy table, a need to understand their challenges. Currently, there are around 100 women from south-East Asia, Africa and Balkans under this program and each one of them has a huge potential to impact their communities. According to one of the women entrepreneurs, network gives them more credibility.

The last speaker of the day, Ms. Eiman Alabdulghani, Founder, Jasmine Incubator, United Kingdom, talked about her passion behind her PhD thesis in London and the work she and her organization are doing to help minorities, particularly women minorities overcome the obstacles they face in the digital world. The digital space is designed in favor of the privileged, and back in 2007 when she started her startups digital magazine, she decided to fight this default by highlighting the successful stories of middle class and small businesses. Her passion to lift these minorities led to support from big companies and EXPO Dubai. She also reinstated that for women in traditional male-dominated culture it is more difficult to convince the investors to fund their projects, and after seeing many women struggle having their voices heard, she decided to use her skills in digital sphere and started the Jasmine Incubator. The organization also runs Jasmine talks where they invite minorities to share their stories and speak up.

#### **I. Quotes**

*"The bigger the dream, the more you develop strong muscles to achieve it"* - Ms. Mei Lin Fung, Chair and Cofounder, People Centered Internet.

*"We live today in a world where women fight inequalities everyday, sometimes they fight for their life just because of being a woman"* - Ms. Pauline Derrien, Manager E-Health, Orange Consulting, France.

#### **II. Overall outcomes of the session**

- It is important to have empathy in every aspect of personal and professional life to be successful.
- Not only women empower women, but men are also a great source of empowerment.
- Gaining skills in building network, creating partnership between private and public sectors.

- One of the key things is action; it is crucial to not only talk and discuss but act concretely.
- Friendship, family, and deep cultural roots help us stay resilient and never give up.
- It is cost-effective to train local activists since they have the capacity to reach out to their respective communities.
- Giving visibility, credibility, and recognition to women's projects, particularly from developing countries can go a long way in achieving sustainable development goals.
- The current system is designed to be in favor of the privileged. There is a low presence of businesses owned by minorities and people of color in the digital space.

### **5) Main linkages with the Sustainable Development Goals (please specify the SDGs)**

As the main objective of the session was to bring together women leaders in ICTs from private sector, civil society, and international organizations to share their inspiring stories, most of the SDGs were around the topic of gender equality, women entrepreneurship, health and well-being. Thus, the following SDGs are directly linked to the topic of the day:

Goal 3. Good health and well-being

Goal 4. Quality education

Goal 5. Gender Equality

Goal 8. Decent work and economic growth

Goal 9. Industry, Innovation, and Infrastructure

Goal 10. Reduced inequalities

Goal 17. Partnership for the goals

### **6) Emerging Trends related to WSIS Action Lines identified during the meeting**

- Importance of health and well-being (e-health)
- Women entrepreneurship and its positive impact on societies (e-business)
- Women in STEM (e-learning)
- Capacity building (Action Line C4)

### **7) Suggestions for Thematic Aspects that might be included in the WSIS Forum 2022**

- Holistic analysis of societal changes, norms, and stereotypes affecting women participation in tech fields.
- ICTs and women's health



## Covid chk - Case Study- Innovative application created during emerging COVID-19 pandemic first wave

**Workshop Name:** Covid chk - Case Study- Innovative application created during emerging COVID-19 pandemic first wave

**Workshop Link:** <https://www.itu.int/net4/wsis/forum/2021/Agenda/Session/248>

**Organization:** MedRet Healthcare Ltd And GeoTechVision Enterprises

**Date:** Friday, 12 March 2021

## Experience of young women and girls in STEM

**Workshop Name:** Experience of young women and girls in STEM

**Workshop Link:** <https://www.itu.int/net4/wsis/forum/2021/Agenda/Session/118>

**Organization:** TechGirls

**Date:** Friday, 12 March 2021



## Experiences of Women in Tech in the UN

**Workshop Name:** Experiences of Women in Tech in the UN

**Workshop Link:** <https://www.itu.int/net4/wsis/forum/2021/Agenda/Session/236>

**Organization:** WSIS

**Date:** Thursday, 18 March 2021

### 1) Relevance with the WSIS Action Lines – please specify the Action Lines C1 to C11

C1. The role of governments and all stakeholders in the promotion of ICTs for development

C2. Information and communication infrastructure: an essential foundation for an inclusive information society

C3. Access to information and knowledge

C4. Capacity building

C6. Enabling environment

C7. ICT applications

- E-applications
- E-business
- E-employment
- E-health

C8. Cultural diversity and identity, linguistic diversity and local content

C11. International and regional cooperation

### 2) Did your workshop highlight any issues related to COVID-19? If yes, please explain.

Yes, the panelists discussed the impact of COVID-19 pandemic on various aspects of young women's and girls' lives.

### 3) Key achievements, announcements, launches, agreements, and commitments

- APAC superhighway initiative at UNESCAP in an effort to give access to affordable, reliable, safe broadband internet
- EQUALS global partnership <https://www.equals.org>
- International Girls in ICT day – ITU <https://www.itu.int/women-and-girls/girls-in-ict/>
- TechGirls <https://www.legacyintl.org/techgirls/>

#### 4) Main outcomes

##### I. Debated Issues

The panelists discussed various ways of supporting young women and girls aspiring to work in tech in the UN organizations. Thus, advice such as building networks, finding funding for projects, seeking support from colleagues, friends and family, as well as choosing wisely a life partner were all part of the inspiring discussion of the day.

The speakers also highlighted the issues of skills gap, lack of women in leadership positions, and STEM careers. For example, according to the statistics cited by Ms. Anne Mottet, Livestock Development Officer, FAO, in large tech companies such as eBay and Twitter, less than 25% of the workforce are women, and these are not even in leadership positions. Ms. Sasha Rubel, Programme Specialist in the Digital Innovation and Transformation Section of the Communication and Information Sector, UNESCO, mentioned that only 22% of the workforce in AI is women, which a serious threat to the future of work, as well as only 6% of the workforce in software development are female.

Issues of diversity and inclusion at a workplace, the detrimental impact of the COVID-19 pandemic on women, and the questions of upskilling and reskilling were raised by the panelists and the audience in the Q&A session.

##### II. Quotes

*"..yes, there is change but there is also consistency"* - Ms. Tiziana Bonapace, Director of Information and Communications Technology and Disaster Risk Reduction Division, United Nations Economic and Social Commission for Asia and the Pacific (UN ESCAP)

*"We need to build societies based on technologies that are as diverse and inclusive as the societies we hope to create"* - Ms. Sasha Rubel, Programme Specialist in the Digital Innovation and Transformation Section of the Communication and Information Sector, UNESCO

##### III. Overall outcomes of the session

- It is important to seek support from colleagues, family, and friends. In addition, one has to marry their equals in order to become successful in their personal and professional lives.
- 3 principles from Ms. Tiziana Bonapace, Director of Information and Communications Technology and Disaster Risk Reduction Division, United Nations Economic and Social Commission for Asia and the Pacific (UN ESCAP):
  1. multisectoral exposure, the one one deals with multiple sectors and disciplines, the more they have the ability to see the bigger picture
  2. collaboration, individualism needs to be blended with culture, family, colleagues, etc.
  3. experience matters; with experience one can have the privilege of looking back.

- Productivity in science among women fell during the pandemic: the number of papers submitted by women or first authored by women decreased by 20%.
- Two drivers of career from Ms. Anne Mottet, Livestock Development Officer, FAO:
  1. there is a need for female role models in Tech sector
  2. life partner can be a source of inspiration, motivation and a role model.
- Ms. Ursula Wynhoven, Head of UN Affairs Division, ITU, stressed on the fact that one does not have to have a purely scientific and/or technical background in order to pursue a career in tech.
- There is a need for combatting the stereotypes and false gender norms, tech must be inclusive, tech is fun and rewarding.
- One does not need to be a daughter of a diplomat to get a job at the UN.
- We have to make sure women are given a seat at the policy table.
- Upskilling and capacity building are essential in achieving women empowerment in tech.
- We have to think about how to support and incubate solutions developed by women entrepreneurs.

#### **5) Main linkages with the Sustainable Development Goals (please specify the SDGs)**

Goal 3. Good health and well-being

Goal 4. Quality education

Goal 5. Gender Equality

Goal 8. Decent work and economic growth

Goal 9. Industry, Innovation, and Infrastructure

Goal 10. Reduced inequalities

Goal 17. Partnership for the goals

#### **6) Emerging Trends related to WSIS Action Lines identified during the meeting**

- Collaborations and multisectoral approach
- Capacity building
- Inclusiveness and diversity in policy making
- Partnerships

#### **7) Suggestions for Thematic Aspects that might be included in the WSIS Forum 2022**

- Inclusion of young women and girls in STEM in WSIS 2022 workshops to raise awareness and spread information
- Workshops, breakfasts, roundtables with remarkable female role models in tech field

# ICTs and Older Persons Special Track

## ICTs and Healthy Ageing: Unlocking Health System Resilience in Covid-19 and Beyond

**Workshop Name:** ICTs and Healthy Ageing: Unlocking Health System Resilience in Covid-19 and Beyond

**Workshop Link:** <https://www.itu.int/net4/wsis/forum/2021/Agenda/Session/271>

**Organization:** Global Coalition on Aging

**Date:** Monday, 12 April 2021

### 1) Relevance with the WSIS Action Lines

- C1. The role of public governance authorities and all stakeholders in the promotion of ICTs for development
- C3. Access to information and knowledge
- C4. Capacity building
- C6. Enabling environment
- C7. ICT Applications
- C8. Cultural diversity and identity, linguistic diversity and local content
- C11. International and regional cooperation

### 2) Relationship to issues of COVID-19?

Yes.

COVID-19 has impacted the diagnosis and treatment of other conditions (eye health, bone health), accelerating the use of new apps and telehealth services.

### 3) Key achievements, announcements, launches, agreements, and commitments

This year's special track, including this session, covers topics on Healthcare, Financial Wellness, Elder Caregiving, Fintech, and Digital Inclusion. This session launched the ICTs and Older Adults WSIS Track, of which the Global Coalition on Aging is proud to be the official partner for the second year in a row. As the WSIS Forum formally opens and the Decade of Healthy Aging officially launched, a major focus of this effort will be the role of technology in ensuring the health and well-being of older persons. Strategies for digital inclusion for older adults will be crucial to combat ageism, as highlighted in the **UN Global Report on Ageism**, including adopting a whole-of-society approach to caregiving, and developing technologies that are adopted to older adults' and their caregivers' needs.

### 4) Main outcomes highlighting the following:

#### I. Debated Issues

- Primary care must be embedded within integrated care pathways for bone health for people of all ages, to prevent fractures as much as possible and for people to receive comprehensive care if a fracture occurs. (Mary, Kassim)

- Digital technologies have the potential to reach people where they are—be it at home or elsewhere—to help them improve their treatment regimens (especially compliance), and empower them to make better decisions about their health. (Anthony, Jisella) At the same time, privacy must be preserved. (Kassim)
  - Remote care technologies have been enhancing identification of diseases, especially in the field of eye and bone health. (Jim, Kassim) Remote care technologies are also helpful in collecting data to make the case for greater investment in prevention. (Kassim)
  - Older person’s feedback is key to improve new technologies, to make sure they fit older adults’ needs. (Kassim)
  - Prevention, detection of diseases, and monitoring are areas where digital technologies have the greatest potential today. (Jisella, Jim, Kassim, Anthony)
  - Bringing non-traditional parties to the conversation (city officials, finance ministers, employees, data providers, cellular and wireless providers) is critical to raise awareness about the benefits of digital technologies for older adults and scale them up. (Jisella, Anthony)
  - There is a risk that we may widen the healthcare gap if digital infrastructure is not provided. (Kassim)
- Key achievements and challenges shared by the audience and/or panellists

## II. Quotes

- Dr Mary Bussell, Associate, Health Policy and Clinical Evidence at the Economist Intelligence Unit and Lead of the Economist Group’s Vaccine Ecosystem Initiative: ***“The challenge is that there is no dedicated clinical specialty to advocate for bone health, so working with people in information, communications and technology can be very valuable in raising awareness.”***
- Dr Mary Bussell: ***“Equipping primary health care providers with the educational resources and the efficient tools so they can improve health outcomes for their patients is key—yet even though there are over 200 guidelines exist worldwide for osteoporosis, few address the challenges and means within primary care that can be flexibly adapted to local contexts.”***
- Dr Mary Bussell: ***“Once someone experiences an osteoporotic fracture, and has another chronic disease, their healthcare cost can be 13% to 23% higher than those who have not faced an osteoporotic fracture.”***
- Jisella Dolan, Chief Global Advocacy Officer, Home Instead: ***“If we can take all the great technologies out there and connect that with boots on the ground, people in the field like Home Instead’s home care workers who can enable, teach and support older adults and families to use the technology, we will be able to advance and support our older populations in ways that we’ve never had before.”***

- Jisella Dolan: *“The COVID-19 pandemic has shown us that the safest place for older adults is the home, and that it's where they want to be. So, we have to **think about how we can best deliver care in the home, and make people more proactive especially on the prevention front.**”*
- Guy Hadnot, Senior Marketing Manager, Genentech Ophthalmology Marketing: *“As we look to create technologies that help older adults to continue to thrive and live a full life, **we have to continue to think about not only just the technology, but what are the other elements, the other challenges that they might face—such as comorbidities.**”*
- Dr Kassim Javaid, Associate Professor, Metabolic Bone Disease, Oxford University: *“We use digital tools to make the invisible cost of fragility fractures visible to policymakers, from finance, health, science, trade and industry. We found that **0.2% of the cost of all fractures is what's needed to be invested for systematic secondary fracture prevention.**”*
- Dr Kassim Javaid: *“**The challenge now is to understand who the leader can be to scale all these technological innovations; and who can deliver the process—**which should be more competency-based, both for delivery but also to improve these technologies based on people's feedbacks as we go on.”*
- Dr Kassim Javaid: *“Just by looking at people's back with the help of digital technologies, we have been able, more and more, to identify bone conditions without bone density scans, which used to be the standard procedure to get people on treatment.”*
- Anthony Lambrou Director, Corporate Strategy & Innovation, Pfizer: *“**The strategy is really to reach people with their healthcare where they are, implement care beyond the clinic, and provide them the right information so that they feel that they're making the right health decisions for themselves.**”*
- Anthony Lambrou: *“**You can think of digital as a companion to the therapy, or as a therapy itself—what we call digital therapeutics.**”*
- Anthony Lambrou: *“**What a digital therapeutic will allow you to do is that at the time that you're experiencing something, you can go ahead and report it—**this way it is recorded and sent to the care team, and it also helps you understand your condition better. This is key as we know that about **40 to 60% of individuals, especially in the elderly population, stop taking treatment if they don't necessarily understand their disease.**”*
- Dr Jim Tsai, President, New York Eye & Ear Infirmary, Mount Sinai Hospital: *“When COVID-19 hit in 2020, we didn't know much about the virus, but we knew patients had*

*vision problems. We used telemedicine to identify patients who needed emergency surgery.”*

- Dr Jim Tsai: *“Physicians may be able to make the diagnosis over the camera, so to speak, however, there are some diagnoses in ophthalmology that require sophisticated magnification and resolution—we look forward to innovators that will push digital innovation in ophthalmology and optometry even further.”*

### **III. Overall outcomes of the session**

- Main conclusions

Remote care technologies have a huge potential to enhance identification of diseases that affect older adults, enhance the way caregiving is delivered and allow people to be empowered in the management of their health conditions.

The vision for implementation of WSIS Action lines beyond 2015

10) International and regional cooperation: Society at all levels must combat ageism, as supported by the tenants of the WHO/UN Decade of Healthy Ageing.

11) ICT Applications: Innovation from all sectors can make a difference, and ICT innovation within these sectors can make big changes in the health and social experiences of older adults. Policy makers must move for regulations that allow these technologies to scale as quick as possible.

12) Enabling environment: Innovators from all sectors must be supported to integrate older person’s needs in the design of their technologies.

13) Building confidence and security in the use of ICTs: the COVID-19 crisis has shown that people do trust remote care and other telehealth technologies. This positive consequence of the pandemic should be acknowledged, and its impact accelerated.

### **6) Main linkages with the Sustainable Development Goals**

- SDG3: Ensure healthy lives and promote well-being for all at all ages. With the WHO/UN Decade of Healthy Aging it is crucial that we ensure healthy lives and promote well-being for all at all ages. Technologies for health must be developed with the needs of a growing, global aging population in mind.
- SDG9: Industry, Innovation and Infrastructure. GCOA proposes the “Creation of a Voluntary WSIS ICTs and Older Persons Group – Chaired by GCOA and WSIS and to include representation from WHO, UN DESA, OECD, 3-5 identified Government Ministries” that would also bring in diverse stakeholders from across the generations.



The initial work of the Voluntary Group would be to suggest policy and marketplace reforms that advance ICTS and Older persons to achieve what is set out in the *ITU Report, Aging in a Digital World: From Vulnerable to Valuable*.

- SDG17: Partnerships to achieve the Goal. All stakeholders from the private sector, governments, international organizations and civil society must come together to combat ageism and to improve the health and wellbeing of older people.

### **5) Emerging Trends related to WSIS Action Lines identified during the meeting**

The ICTs and Older Adults WSIS track is the result of a growing demand around understanding the changing roles and the needs of older adults in our societies, and touches upon multiple WSIS Action Lines as described earlier. This year WSIS-GCOA Older Persons Track launched the first ever Healthy Ageing Innovation Prize, showing further progress for ICTs to enable healthier and more active aging for older persons and that innovation itself is best built on co-creation and co-design. Multi and Inter-generational collaboration across all ages leading to innovations for healthy ageing will be built into 2022 WSIS. The Older Persons Track realized value and progress between ICTs and Older persons through this years' innovative "Ageing Better Hackathon where over a thousand global hackers produced ideas in four areas of huge need for healthier and more active aging: Alzheimer's Disease and Cognitive Decline; Frailty; Transportation and Mobility; and Financial Tools for Longevity.

### **7) Suggestions for Thematic Aspects that might be included in the WSIS Forum 2022**

## The Future of Care in Global Aging Societies: ICTs and High Touch Personal Care

**Workshop Name:** ICTs and Older Persons special track: The Future of Care in Global Aging Societies: ICTs and High Touch Personal Care

**Workshop Link:** <https://www.itu.int/net4/wsis/forum/2021/Agenda/Session/274>

**Organization:** Global Coalition on Aging

**Date:** Wednesday, 14 April 2021

### 1) Relevance with the WSIS Action Lines

- C1. The role of public governance authorities and all stakeholders in the promotion of ICTs for development
- C3. Access to information and knowledge
- C4. Capacity building
- C6. Enabling environment
- C7. ICT Applications
- C8. Cultural diversity and identity, linguistic diversity and local content
- C11. International and regional cooperation

### 2) Relevance to Covid-19?

Yes.

The COVID-19 pandemic has shown that there is a growing need for caregiving—demand for skilled workers in the care sector is set to increase as a result. The pandemic also highlighted the severe risk of isolation and loneliness in older adults.

- **Key achievements, announcements, launches, agreements, and commitments**

The demand for skilled workers in the care sector is set to increase, and there is an economic incentive in meeting this demand as care is increasingly set to be delivered at home. Governments must encourage a “life-course approach” to aging, where young people also take part in the conversation to invest in their own futures as older adults tomorrow and in older adults today.

- **Main outcomes highlighting the following:**

#### I. Debated Issues

- In traditional industrial systems, everything was standardized – solutions were created and applied to all. In today’s world, we’re able to personalize everything. This has already happened in entertainment, is underway in education, but it can have a major impact on the care sector.
- The demand for skilled workers in the care sector is set to increase, and there is an economic incentive in meeting this demand. To grow the workforce, the mindset must

be changed from viewing care as a “job of last resort,” to a desirable, professional position. This need can also be met through up-skilling or re-skilling. On the flip side, this also represents an area of great potential for economic growth that can be maximized through private-sector engagement.

- Technology is in the homes of older people, but it isn’t being used. To be effective, technology must not only be designed for older users, but involve older users throughout the design process.
- The conversation on aging can be viewed as a “life course” conversation, encouraging younger adults to both invest in their own futures and in older adults today. Both the UN and Home Instead are active in this regard, as it can help change the narrative on aging and equip young people with more knowledge on aging as they enter the workforce.
- Amal said, “When we’re listening to Jeff speaking, we’re listening to the best of the best” regarding the role of caregiving in developing countries. Home Instead’s mission highlights a critical need in countries where caretakers are usually untrained family members or untrained migrant workers, who are almost always women. Workers, formal and informal, need more support via standards.

Key achievements and challenges shared by the audience and/or panellists

## II. Quotes

- Jeff Huber, CEO, Home Instead  
*“At Home Instead, we are **creating new vocations of people who want to work in caregiving, there is a huge economic growth opportunity too. However, we still need to lay out a clear plan and bring value to the professionals in caregiving—these are true professionals, who help clients transition from institutionalized to home care, play a key role in the prevention of diseases and of cognitive decline, and who deliver better health outcomes to their clients and everyone in the client’s orbit.**”*
- Jeff Huber: *“With the COVID-19 pandemic, we learned that **care can be safely delivered in the home—it will become the primary point of care as we go on.**”*
- Amal Abou Rafeh, Chief of Programme on Ageing Unit, United Nations Department for Economic and Social Affairs (UN DESA)  
*“Data shows that the measures taken by governments to fight the COVID-19 pandemic have been impacting older adults in a negative way. In low-and-middle income countries, **precarious housing, and multigenerational households put older people at higher risk of ill treatment and abuse by families and care providers. Also, in high income countries, older people were restricted access to loved ones and mostly left alone, which is not okay.**”*

- Amal Abou Rafeh: *“We have learned from COVID-19 that pandemics drive change: there are new road maps for digital cooperation, that point the need to protect all people; but **nearly half of the world still has no access to the internet, and older women are at highest disadvantage here—facing challenges such as literacy, language, visual and hearing impairment.** We must include older people in the development of all new innovations, to understand what they want and need, but so far this vision is mostly absent.”*
- Amal Abou Rafeh: *“**Care at home is both formal and informal—we need to look at how older people really live to find good solutions.**”*
- Amal Abou Rafeh: *“Governments are more reactive when we talk about a life-course approach and when we highlight that young adults are part of the equation in the aging process. **It’s fundamentally a rights space conversation: member states have an obligation to set standards to treat people equally wherever they are on the age scale.**”*

### III. Overall outcomes of the session highlighting

The caregiving sector is set to create new vocations, creating new jobs and economic opportunities. However, there is a need for a framework to structure this growth and bring value to the professions linked to the caregiving sector.

When developing new technologies targeted at older adults, it is important to involve them and their caregivers as necessary from the very start, to understand what needs must be fulfilled and how. Additionally, the aging conversation must also consider the rights of older adults, to set standards that ensure that older adults are not discriminated because of their age.

The vision for implementation of WSIS Action lines beyond 2015

10) International and regional cooperation: Society at all levels must combat ageism, as supported by the tenants of the WHO/UN Decade of Healthy Ageing.

11) ICT Applications: Innovation from all sectors can make a difference, and ICT innovation within these sectors can make big changes in the health and social experiences of older adults. Policy makers must move for regulations that allow these technologies to scale as quick as possible.

12) Enabling environment: Innovators from all sectors must be supported to integrate older person’s needs in the design of their technologies.

13) Building confidence and security in the use of ICTs: the COVID-19 crisis has shown that

people do trust remote care and other telehealth technologies. This positive consequence of the pandemic should be acknowledged, and its impact accelerated.

## **II. Main linkages with the Sustainable Development Goals**

- SDG3: Ensure healthy lives and promote well-being for all, at all ages. With the WHO/UN Decade of Healthy Aging it is crucial that we ensure healthy lives and promote well-being for all at all ages. Technologies for health must be developed with the needs of a growing, global aging population in mind.
- SDG9: Industry, Innovation and Infrastructure. GCOA proposes the “Creation of a Voluntary WSIS ICTs and Older Persons Group – Chaired by GCOA and WSIS and to include representation from WHO, UN DESA, OECD, 3-5 identified Government Ministries” that would also bring in diverse stakeholders from across the generations. The initial work of the Voluntary Group would be to suggest policy and marketplace reforms that advance ICTS and Older persons to achieve what is set out in the *ITU Report, Aging in a Digital World: From Vulnerable to Valuable*.
- SDG17: Partnerships to achieve the Goal. All stakeholders from the private sector, governments, international organizations and civil society must come together to combat ageism and to improve the health and wellbeing of older people.

## **III. Emerging Trends related to WSIS Action Lines identified during the meeting**

The ICTs and Older Adults WSIS track is the result of a growing demand around understanding the changing roles and the needs of older adults in our societies, and touches upon multiple WSIS Action Lines as described earlier. This years’ WSIS-GCOA Older Persons Track launched the first ever Healthy Ageing Innovation Prize, showing that further progress for ICTs to enable healthier and more active aging for older persons and that innovation itself is best built on co-creation and co-design. Multi and Inter-generational collaboration across all ages leading to innovations for healthy ageing will be built into 2022 WSIS. The Older Persons Track realized value and progress between ICTs and Older persons through this years’ innovative “Ageing Better-Hackathon where over a thousand global hackers produces ideas in four areas of huge need for healthier and more active aging: Alzheimer’s and Cognitive Decline; Frailty; Transportation and Mobility; Financial Tools for Longevity

### **8) Suggestions for Thematic Aspects that might be included in the WSIS Forum 2022**

The ICTs and Older Adults WSIS track should continue in 2022.

## Through the Role of Digital and ICTs Across the Life Course

**Workshop Name:** Through the Role of Digital and ICTs Across the Life Course

**Workshop Link:** <https://www.itu.int/net4/wsis/forum/2021/Agenda/Session/277>

**Organization:** Global Coalition on Aging

**Date:** Friday, 16 April 2021

## Busting the Myths of Older Persons and ICTs: The Facts, Anecdotes and Reality Versus Ageism

**Workshop Name:** Busting the Myths of Older Persons and ICTs: The Facts, Anecdotes and Reality Versus Ageism

**Workshop Link:** <https://www.itu.int/net4/wsis/forum/2021/Agenda/Session/276>

**Organization:** Global Coalition on Aging

**Date:** Thursday, 15 April 2021

### 1) Relevance with the WSIS Action Lines

- C1. The role of public governance authorities and all stakeholders in the promotion of ICTs for development
- C3. Access to information and knowledge
- C4. Capacity building
- C6. Enabling environment
- C7. ICT Applications
- C8. Cultural diversity and identity, linguistic diversity and local content
- C11. International and regional cooperation

### 2) Relevance to Covid-19?

Yes.

COVID-19 highlighted that ageism is still widespread in our societies, and that we need to fight it at all levels—in our communities, in healthcare, at work, in our families.

### 3) Key achievements, announcements, launches, agreements, and commitments

The first-ever [UN report on Ageism](#) launched in March 2021. The report found that one in two persons is believed to hold ageist attitudes, leading to poorer physical and mental health and reduced quality of life for older persons, costing societies billions of dollars each year. This session offers solutions to combat ageism at all levels.

### 4) Main outcomes highlighting the following:

#### I. Debated Issues

- Ageism is the last remaining tolerated form of discrimination: globally, one in two people are ageist against older people, according to the [UN's first-ever report on ageism](#).
- Innovation is a powerful tool to overcome prejudices—as more entrepreneurs become successful in the aging space, more entrepreneurs, innovators and investors will follow.

- The age of older entrepreneurs can actually be a unique selling point. However, many businesses still support an ageist agenda as it remains a lucrative selling point, as seen in the beauty industry and beyond. (Han, Stephen, Daria)
- Older people have a responsibility to show that ageing offers many exciting opportunities, that “getting old” is not an end in itself. (Daria, Danielle) Luckily, there are more and more examples of personalities who can inspire both young and old to look forward to aging.
- Intergenerational collaboration is key to change mindsets around ageism. Many studies have shown that multigenerational teams are more innovative and more efficient, and that older entrepreneurs are actually more successful than younger ones. (Han, Melissa, Danielle) Young people also need to get involved in healthy aging now, and see the benefits of intergenerational exchanges. (Stephen)
- Caregiving must be embedded into the mindsets of everybody in society—beyond care professionals and families - to have a “whole of society” approach. Both technological, but also human and societal solutions are key. (Danielle) Moreover, society needs to realize that caregivers are all sorts of people (even though still mainly women), and recognize the work they do. That innovators will notice them and come up with adapted solutions to their challenges. (Stephen)

Key achievements and challenges shared by the audience and/or panellists

## II. Quotes

- Han Van Doorn, Winner, Start-up Plus; Founder, *“Are You Okay Today”*: *“Are You Okay Today developed a light system: green if you are okay, orange if there might be something wrong, and red if I need help. **The system sends the older person a signal to ask if he/she is okay first, making the system less intrusive.** It changed my life: I feel safe again in my own home.”*
- Han Van Doorn: *“**It’s a big advantage to start a business at an older age. In my case, my age is actually a unique selling point.** As I grew old, I could understand my problems better, and solve them, so it’s much easier for people to believe me.”*
- Han Van Doorn: *“**In the end, it’s easier to grow old in vitality if you have a purpose in your life.**”*
- Danielle D. Duplin, Co-Founder, Global Director, AGENCY: Worldwide Innovation for Living Longer and Aging Better. *“There is an ecosystem that needs to be activated. We created AGENCY to bring innovators together, connecting them to resources they need with a lens to commercialization. **The aging market is not only a market for older people, but also caregivers, healthcare providers, elected officials who are looking at developing age-friendly cities.** So really, we are called upon to be more innovative, and we all play a role in our respective places of work.”*
- Danielle D. Duplin: *“**First, we need radical empathy, where younger folks connect with older ones; second, we need radical collaboration, where people from different***



**generations come together to support each other.** The reminiscence of the pandemic is that we must come up with better solutions that we know can work at scale, and are affordable, and accessible.”

- Danielle D. Duplin: **“There is a huge focus on care as a profession and in the family; but employers, elected officials need to get involved too.** Tech solutions can make the transition smoother, but only with a shift in attitudes and social solutions we will then make it happen.”
- Danielle D. Duplin: **“My advice to entrepreneurs is: design for joy.** Make sure that your innovations don’t carry the burden of ageism, that it is designed for the highest aspirations. **We need to design for older people, but we don’t need to dread it.”**
- Stephen Johnston, Co-Founder Aging 2.0  
*“System change is key to innovation in the aging space. We have to adopt a positive approach and mindset, by starting to shine light on things that are working to then start a chain of events where innovators attract others by creating momentum. Success stories of companies that primarily serve an older population and that have seen their funding dramatically increase as a result of the pandemic will make investors want to be in. **Innovation is a universal attractive element and can overcome all sorts of challenges and prejudices.**”*
- Stephen Johnston: *“We don’t necessarily realize that, but we are all supporting an ageist agenda in certain ways—for some companies, ageism can even be a (very) lucrative selling point. That’s why **highlighting the advantages of adopting an intergenerational vision is absolutely key to beat ageism.**”*
- Stephen Johnston: *“Housing and health worlds were seen as two separated worlds before COVID. Then **the pandemic forced locality, made us understand that we can thrive if we are connected to our communities—including our older neighbors.**”*
- Daria Myers, Co-Founder, Everlasting; Former Managing Director, Estee Lauder Ventures  
*“Across the beauty industry, beauty is entirely defined by youth to the point that women of a certain age are feeling ignored, invisible and often disrespected by the industry. We don’t see ourselves in ad; aging is portrayed as a terrible place to be in. **But research shows that women feel happier, freer and more confident in their own skin when they are 50+ than in any other stage of their lives.** However, the industry has set up a fear of aging: anti-aging products are marketed toward older women, but also toward younger women—even to those in their 20s.”*
- Daria Myers: *“It’s key that we create an image of aging in the media and across industries that is much more positive, in order to remove the fear of aging. Research shows that millennials actually have the greatest fear of aging, which is perpetuated by society. **We, the older generation, need to inspire younger people, and show with imagery what getting older actually means, and that “getting old” is not an end in itself.**”*

- *Daria Myers: “Cultural offers online have dramatically increased as a result of the pandemic —museums now offer virtual tours; ballets can be watched online etc. Those are opportunities for older people, but we can build on that more broadly even as we reenter the world post-COVID.”*

### III. Overall outcomes of the session highlighting

Main conclusions reached during the discussion

We all have a role to play to combat ageism, at work, in our families, in our communities. Adopting an intergenerational approach at the workplace is key. The growing number of successful companies operating on the aging market are increasingly making it attractive overall and can help overcome prejudices around getting older.

The vision for implementation of WSIS Action lines beyond 2015

10) International and regional cooperation: Society at all levels must combat ageism, as supported by the tenants of the WHO/UN Decade of Healthy Ageing.

11) ICT Applications: Innovation from all sectors can make a difference, and ICT innovation within these sectors can make big changes in the health and social experiences of older adults. Policy makers must move for regulations that allow these technologies to scale as quick as possible.

12) Enabling environment: Innovators from all sectors must be supported to integrate older person’s needs in the design of their technologies.

13) Building confidence and security in the use of ICTs: the COVID-19 crisis has shown that people do trust remote care and other telehealth technologies. This positive consequence of the pandemic should be acknowledged, and its impact accelerated.

### 5) Main linkages with the Sustainable Development Goals

- SDG3: Ensure healthy lives and promote well-being for all at all ages. With the WHO/UN Decade of Healthy Aging it is crucial that we ensure healthy lives and promote well-being for all at all ages. Technologies for health must be developed with the needs of a growing, global aging population in mind.
- SDG9: Industry, Innovation and Infrastructure. GCOA proposes the “Creation of a Voluntary WSIS ICTs and Older Persons Group – Chaired by GCOA and WSIS and to include representation from WHO, UN DESA, OECD, 3-5 identified Government Ministries” that would also bring in diverse stakeholders from across the generations.

The initial work of the Voluntary Group would be to suggest policy and marketplace reforms that advance ICTS and Older persons to achieve what is set out in the *ITU Report, Aging in a Digital World: From Vulnerable to Valuable*.

- SDG17: Partnerships to achieve the Goal. All stakeholders from the private sector, governments, international organizations and civil society must come together to combat ageism and to improve the health and wellbeing of older people.

#### **6) Emerging Trends related to WSIS Action Lines identified during the meeting**

The ICTs and Older Adults WSIS track is the result of a growing demand around understanding the changing roles and the needs of older adults in our societies, and touches upon multiple WSIS Action Lines as described earlier. This year's WSIS-GCOA Older Persons Track launched the first ever Healthy Ageing Innovation Prize, showing that progress for ICTs to enable healthier and more active aging for older persons and that innovation itself is best built on co-creation and co-design. Multi and Inter-generational collaboration across all ages leading to innovations for healthy ageing will be built into 2022 WSIS. The Older Persons Track realized value and progress between ICTs and Older persons through this year's innovative "Ageing Better Hackathon" where over a thousand global hackers produced ideas in four areas of huge need for healthier and more active aging: Alzheimer's Disease and Cognitive Decline; Frailty; Transportation and Mobility; Financial Tools for Longevity.

## Pushing Through the Role of Digital and ICTs Across the Life Course

**Workshop Name:** Pushing Through the Role of Digital and ICTs Across the Life Course

**Workshop Link:** <https://www.itu.int/net4/wsis/forum/2021/Agenda/Session/277>

**Organization:** Global Coalition on Aging

**Date:** Friday, 16 April 2021

### 1) Relevance with the WSIS Action Lines

- C1. The role of public governance authorities and all stakeholders in the promotion of ICTs for development
- C3. Access to information and knowledge
- C4. Capacity building
- C6. Enabling environment
- C7. ICT Applications
- C8. Cultural diversity and identity, linguistic diversity and local content
- C11. International and regional cooperation

### 2) Relevance to COVID-19?

Yes.

COVID-19 has overwhelmingly impacted older adults, as many were infected with the disease and died from it, and were forced into isolation and loneliness. Going forward, stakeholders from governments, international organizations, academia, the non-profit, and the private sector can build on lessons learned during the pandemic as they work together under The Decade of Healthy Ageing.

### 3) Key achievements, announcements, launches, agreements, and commitments

Alana Officer, of the World Health Organization, announced that they have launched a Platform to connect and convene the stakeholders who promote the four action areas at country level and to support those seeking to find and share knowledge that can improve the lives of older people their families and communities. The four action areas at country level are:

- Age-friendly environments
- Combatting ageism
- Integrated care
- Long-term care

### 4) Main outcomes highlighting the following:

#### I. Debated Issues

- Healthcare can and should move away from the traditional hospital structure and into homes. It is more valuable, effective, and compatible with how we live our lives. Moving from hospitals to care at home and in the community requires a level of safety and equity.
- Advancements are being made in ICTs, but the challenge is to ensure they are being deployed and adhered to once in the hands of citizens. This can be addressed by developing new technologies with a user-centric approach, as well as through education, so people understand the value of what they're doing or what they're wearing.
- There should be focus on creating age inclusive workplaces. People are living longer and healthier lives, and views on retirement are changing, and many now see older age as combined with work. Multigenerational workplaces are beneficial regardless of one's stage in the life course, although many feel that their companies are not doing enough to encourage this.
- There's work to be done on the intersection of ageism and technology - both in terms of defeating ageist perceptions that older adults can't adapt to new technologies, and in addressing ageist bias in AI and machine learning.
- Cross sectoral approaches are needed to address ICTs and healthy aging. This is seen both in the outlines of the Decade of Healthy Ageing, which brings together governments, private sector, and individuals, as well as in the cooperation between private corporations to collaborate on pressing issues like COVID and beyond.

Key achievements and challenges shared by the audience and/or panellists

## II. Quotes

- Alana Officer, Unit Head, Demographic Change and Healthy Ageing, World Health Organization  
***"ICT is absolutely essential to making our cities and communities better places in which to grow older. We need to look at changes in care models, but ICT can really help support older adults within their communities and neighborhoods in terms of aging in place, and if we could get better linkages between Age-Friendly Cities and Communities and Smart Cities, we've really got opportunities to enable people to do what they value."***
- Mike Devoy, Chief Medical Officer and Executive VP Medical Affairs & Pharmacovigilance, Pharmaceuticals Division, Bayer AG  
***"Healthcare can and should move from big buildings, and big hospitals, more and more into the homes and where we live our lives. That's because it increases effectiveness, it increases the value we can achieve, but most important it's much***

more compatible with how we want to lead our lives.”

- Irina Kalderon Libal, Policy Officer, Directorate-General Communications Networks, Content and Technology (DG CNECT)  
*“The European Commission has supported research and innovation in different technologies, apps, biosensors, telemedicine solutions for over a decade with really huge support. Nevertheless, **we still face a gap, which is the one of how all of these wonderful solutions that are provided are going to be brought to the citizens and be used by them. In a way, this would be our most important call in the coming decade, to make sure we deploy those solutions that the end users, citizens, carers and health practitioners are going to use on a large scale.**”*
- Mike Mansfield Program Director, Aegon Center for Longevity and Retirement,  
*“We’ve seen that lives are changing, and thanks to advances in science and medical technology, people are able to lead much more active lives much longer into older life. **Healthy aging became an important part of the discussion on preparing for the future and preparing for retirement.** There were two reasons why that became important, one was **people need to have good health to enjoy the retirement they worked so hard for.** But importantly here, **people’s views on work and retirement have been changing over time...** Only 1 in 3 workers were seeing retirement as a cliff edge event, but **the majority of people saw it as a phased transition, where they combined work into retirement.**”*
- Julie Viola, Business Marketing Leader, Vital Care and Healthcare Informatics, Philips *“**Partnership is a must...** To solve these complex problems, it’s no longer a singular way of working. **One company is not going to solve all of the problems, it takes a holistic view.**”*
- Alana Officer: *“An opportunity for us would be to look at how collectively we can promote **technology and ICTs as a strength-based perspective, focusing on the positive opportunities that technologies provide.** I don’t think this message is out there, and **this needs to be the focus of collaboration between government, private sector, and individuals.**”*
- Mike Mansfield: *“**Work gives people a real sense of purpose but also economic independence.** A lot of companies are being hard hit by the pandemic and a lot of employers may no longer be able to guarantee employment, but they can make sure **their employees are employable.**”*
- Alana Officer: *“Unless we challenge the stereotypes about older people’s abilities to use technology, **we’re not going to think creatively around co-producing***

*technologies together, providing education in terms of reducing the digital divide that exists, and ultimately, improving health and opportunities for older people.”*

### III. Overall outcomes of the session highlighting

Main conclusions reached during the discussion

ICTs can help “age in place” and provide older adults with new opportunities to engage with their communities and do what they value for themselves—from health to retirement planning, socializing, working etc. As we enter the Decade of Healthy Ageing, partnerships are key to ensure we work together toward better, healthier aging for all.

The vision for implementation of WSIS Action lines beyond 2015

10) International and regional cooperation: Society at all levels must combat ageism and the World Health Organization, as supported by the tenants of the WHO/UN Decade of Healthy Ageing.

11) ICT Applications: Innovation from all sectors can make a difference, and ICT innovation within these sectors can make big changes in the health and social experiences of older adults. Policy makers must move for regulations that allow these technologies to scale as quick as possible.

12) Enabling environment: Innovators from all sectors must be supported to integrate older person’s needs in the design of their technologies.

13) Building confidence and security in the use of ICTs: the COVID-19 crisis has shown that people do trust remote care and other telehealth technologies. This positive consequence of the pandemic should be acknowledged, and its impact accelerated.

- **Main linkages with the Sustainable Development Goals**

- SDG3: Ensure healthy lives and promote well-being for all at all ages. With the WHO/UN Decade of Healthy Aging it is crucial that we ensure healthy lives and promote well-being for all at all ages. Technologies for health must be developed with the needs of a growing, global aging population in mind.
- SDG9: Industry, Innovation and Infrastructure. GCOA proposes the “Creation of a Voluntary WSIS ICTs and Older Persons Group – Chaired by GCOA and WSIS and to include representation from WHO, UN DESA, OECD, 3-5 identified Government Ministries” that would also bring in diverse stakeholders from across the generations. The initial work of the Voluntary Group would be to suggest policy and marketplace

reforms that advance ICTS and Older persons to achieve what is set out in the *ITU Report, Aging in a Digital World: From Vulnerable to Valuable*.

- SDG17: Partnerships to achieve the Goal. All stakeholders from the private sector, governments, international organizations and civil society must come together to combat ageism and to improve the health and wellbeing of older people.

#### **5) Emerging Trends related to WSIS Action Lines identified during the meeting**

The ICTs and Older Adults WSIS track is the result of a growing demand around understanding the changing roles and the needs of older adults in our societies, and touches upon multiple WSIS Action Lines as described earlier. This year's WSIS-GCOA Older Persons Track launched the first ever Healthy Ageing Innovation Prize, showing that further progress for ICTs to enable healthier and more active aging for older persons and that innovation itself is best built on co-creation and co-design. Multi and Inter-generational collaboration across all ages leading to innovations for healthy ageing will be built into 2022 WSIS. The Older Persons Track realized value and progress between ICTs and Older persons through this year's innovative "Ageing Better Hackathon" where over a thousand global hackers produced ideas in four areas of huge need for healthier and more active aging: Alzheimer's Disease and Cognitive Decline; Frailty; Transportation and Mobility; Financial Tools for Longevity.

#### **6) Suggestions for Thematic Aspects that might be included in the WSIS Forum 2022**

The ICTs and Older Adults WSIS track should continue in 2022.



How to improve the e-inclusion of seniors in order to ensure social fairness, avoid intergenerational divide and help all ages to build resilience capacities in order to react to crises

**Workshop Name:** How to improve the e-inclusion of seniors in order to ensure social fairness, avoid intergenerational divide and help all ages to build resilience capacities in order to react to crises

**Workshop Link:** <https://www.itu.int/net4/wsis/forum/2021/Agenda/Session/291>

**Organization:** E-SENIORS

**Date:** Monday, 19 April 2021

**1) Relevance with the WSIS Action Lines – please specify the Action Lines C1 to C11**

C3. Access to information and knowledge

C4. Capacity building

C5. Building confidence and security in use of ICTs

C7. ICT applications: benefits in all aspects of life — E-learning

C7. ICT applications: benefits in all aspects of life — E-health

C11. International and regional cooperation

**2) Did your workshop highlight any issues related to COVID-19? If yes, please explain.**

Yes because

- we help all ages to build resilience capacities in order to react to crises
- taking into account the actual pandemic situation, we created new kind of activities while revisiting and adapting the existing ones but also created new online workshops in order to help seniors to keep healthy and active, to fight against isolation and intergenerational divide.

**3) Key achievements, announcements, launches, agreements, and commitments**

We will continue to experiment (and learn from each other) new online activities ( such as the RADIO-Theater of HIPOKAMP Educational Centre for Intergenerational Integration in Lodz / Poland - “Domowy Teatr Radio” ) We will launch new Pan-European English conversation meetings with members of EURAG in Russian and Lithuania

**4) Main outcomes highlighting the following:**

**IV. Debated Issues**

- Please capture highlights of the main issues discussed and interactions with audience

We debated about the pros and cons of using computers or tablets - specially adapted for seniors and simplified !

**V. Quotes**

- Please provide two important quotes from the session and the names & organisation of the person you are quoting

Peter Enste made a remark about the gender differences for people over 80 using computers = they are more men !! 10.7 women and 23.7 men are active on Internet – in Germany

I said that in my workshops I have much more women than men – in France!

**VI. Overall outcomes of the session highlighting**

- main conclusions reached during the discussion  
importance of acting for the e-inclusion of seniors and, nowadays more than ever !
- the vision for implementation of WSIS Action lines beyond 2015  
working together with partners in other countries (Europe and beyond!)

**5) Main linkages with the Sustainable Development Goals (please specify the SDGs)**

Goal 3: Ensure healthy lives and promote well-being for all

Goal 4: Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all

Goal 10: Reduce inequality within and among countries

Goal 11: Make cities inclusive, safe, resilient and sustainable

Goal 17: Revitalize the global partnership for sustainable development

**6) Emerging Trends related to WSIS Action Lines identified during the meeting**

The COST program NET4AGE-FRIENDLY fosters awareness and supports the creation and implementation of smart, healthy indoor and outdoor environments for present and future generations.

**7) Suggestions for Thematic Aspects that might be included in the WSIS Forum 2022**

Make ICTs more user-friendly !

If access to Internet is fine for seniors ..it will be good for everybody !

# ICTs and Accessibility for Persons with Disabilities and Specific Needs Special Track

Opening of the ICTs and Accessibility for Persons with Disabilities and Specific Needs special track

**Workshop Name:** Opening of the ICTs and Accessibility for Persons with Disabilities and Specific Needs special track

**Workshop Link:** <https://www.itu.int/net4/wsis/forum/2021/Agenda/Session/126>

**Organization:** WSIS

**Date:** Monday, 15 March 2021

**1) Relevance with the WSIS Action Lines – please specify the Action Lines C1 to C11**

This session is connected to WSIS Action Lines

C1. The role of governments and all stakeholders in the promotion of ICTs for development

C3. Access to information and knowledge

C4. Capacity building

C6. Enabling environment

C10. Ethical dimensions of the Information Society

**2) Did your workshop highlight any issues related to COVID-19? If yes, please explain.**

No

**3) Key achievements, announcements, launches, agreements, and commitments**

It is crucial that persons with disabilities and specific needs can fully access Information and Communication Technologies (ICTs). The opening of ICTs and Accessibility for Persons with Disabilities and Specific Needs special track aims to inform and observe how ICTs can help people living with disabilities and specific needs whilst focusing on progressing towards the UN Sustainable Development Goals. This session also looks at ICT and accessibility, public awareness towards accessibility to ICTs, initiatives and solutions addressing challenges faced by people with disabilities, the role of ICTs in the development of inclusive society, and the contribution of all stakeholders in making ICTs accessible to persons with disabilities and specific needs.

**4) Main outcomes highlighting the following:**

**I. Debated Issues**

- Ways that we can ensure that no one is left behind with the quickly evolving future of work
- Steps that ensure ICT Accessibility

**II. Quotes**

- Sarah Boulter, Microsoft - We see that AI is making amazing advances in speech vision and language when this is coupled with inclusive design in our in 1 billion people with disabilities to fully participate in our societies and economies.
- Dependra Manocha, Daisy Consortium - In low and middle income countries, we have found that the users themselves, their level of awareness, especially when it comes to standards, is low. That's where I lay down so much emphasis on building strategy and bringing stakeholders together, because that's where things will start and where governments will encourage you to put in the right amount of resources into the system.

### III. Overall outcomes of the session highlighting

- Effective communication is important for persons with disabilities. In order to have an optimal impact, it's really important that we have data sets which also include input from people who have disabilities or perhaps special needs.
- We need to ensure that persons with disabilities and specific needs can fully access ICTs, and the participation of all stakeholders will be crucial in the fight for digital security. This special track will provide information on how ICT can better help people live with disabilities.

### 5) Main linkages with the Sustainable Development Goals (please specify the SDGs)

This Session is linked to the following Sustainable Development Goals:

Goal 3: Ensure healthy lives and promote well-being for all

Goal 4: Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all

Goal 8: Promote inclusive and sustainable economic growth, employment and decent work for all

Goal 9: Build resilient infrastructure, promote sustainable industrialization and foster innovation

Goal 10: Reduce inequality within and among countries

Goal 11: Make cities inclusive, safe, resilient and sustainable

Goal 16: Promote just, peaceful and inclusive societies

### 6) Emerging Trends related to WSIS Action Lines identified during the meeting

Some of our more recent examples of ITU work on standards includes areas such as and audio based indoor and outdoor network navigation system for persons with vision impairment, accessibility and IPTV systems and standards which support who chose Make Listening Safe Initiative. These trends can better promote well-being for all.

### 7) Suggestions for Thematic Aspects that might be included in the WSIS Forum 2022

Policymakers can be included in the WSIS Forum 2022.

ICTs and Accessibility for Persons with Disabilities and Specific Needs: ICTs and Assistive Technologies for Visual Impairment

**Workshop Name:** ICTs and Assistive Technologies for Visual Impairment

**Workshop Link:** <https://www.itu.int/net4/wsis/forum/2021/Agenda/Session/127>

**Organization:** WSIS

**Date:** Tuesday, 16 March 2021

**1) Relevance with the WSIS Action Lines – please specify the Action Lines C1 to C11**

This session is connected to WSIS Action Lines

C1. The role of governments and all stakeholders in the promotion of ICTs for development

C3. Access to information and knowledge

C6. Enabling environment

C10. Ethical dimensions of the Information Society

**2) Did your workshop highlight any issues related to COVID-19? If yes, please explain.**

No

**3) Key achievements, announcements, launches, agreements, and commitments**

Access to accessible Apps and software and websites is always important young and old.

Accessibility design shall be included in product design from the beginning instead of retrofitting the existing product.

**4) Main outcomes highlighting the following:**

**I. Debated Issues**

- How do people with vision loss have benefited by using ICT is for best learning outcomes in school? How can our seniors best adapt to vision loss as they age and remain independent? What can companies gain from prioritizing accessibility and inclusion? how can we make all ICT accessible for the blind?
- Online library with a multimodal delivery system that directly connects and delivers books; working on the campaign to promote the Marrakesh treaty, which is about delegations to authors rights for the circulation to production and circulation across borders of accessible book;

**II. Quotes**

- Antoine Fobe, European Blind Union (EBU) - Accessibility is a constant struggle, booking a vacation online, taking the train to work or reading a book for school often pose insurmountable challenges. This lack of accessibility precludes their free and independent participation in Europe.
- Dependra Manocha, Daisy Consortium - How technology solutions can be used for education, livelihood and independent living and doing all that in low and middle income group country is the real challenge for us, because the assistive technology industry primarily has been creating solutions for high income countries and those solutions are actually not affordable.

**III. Overall outcomes of the session highlighting**

- Create replicable models of assistive technology at a large scale in low and middle income.

- Provide a holistic solution in terms of assistive technology
- Include accessibility in the design of product

**5) Main linkages with the Sustainable Development Goals (please specify the SDGs)**

The session is connected to the Sustainable Development Goals:

Goal 3: Ensure healthy lives and promote well-being for all

Goal 4: Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all

Goal 8: Promote inclusive and sustainable economic growth, employment and decent work for all

Goal 9: Build resilient infrastructure, promote sustainable industrialization and foster innovation

Goal 10: Reduce inequality within and among countries

Goal 11: Make cities inclusive, safe, resilient and sustainable

Goal 16: Promote just, peaceful and inclusive societies

**6) Emerging Trends related to WSIS Action Lines identified during the meeting**

Essential skills training programs are offered to seniors, which provide new techniques and the use of devices to learn and to adapt with vision loss and best use the remaining vision. Accessibility is necessary for persons with disabilities, but it is also good for any citizen, because it is something about keeping things simple. Accessibility design shall be included in product design from the beginning instead of retrofitting the existing product.

**7) Suggestions for Thematic Aspects that might be included in the WSIS Forum 2022**

Accessibility designers and instructors for assistive technologies can be included in the WSIS Forum 2022.

## Inclusive education for everyone

**Workshop Name:** Inclusive education for everyone

**Workshop Link:** <https://www.itu.int/net4/wsis/forum/2021/Agenda/Session/130>

**Organization:** WSIS

**Date:** Wednesday, 17 March 2021

**1) Relevance with the WSIS Action Lines – please specify the Action Lines C1 to C11**

The session is connected to WSIS Action Lines:

- C1. The role of governments and all stakeholders in the promotion of ICTs for development
- C2. Information and communication infrastructure
- C3. Access to information and knowledge
- C4. Capacity building
- C6. Enabling environment
- C10. Ethical dimensions of the Information Society

**2) Did your workshop highlight any issues related to COVID-19? If yes, please explain.**

No

**3) Key achievements, announcements, launches, agreements, and commitments**

The session highlighted the need to ensure that there is sufficient training and information in for teachers for students and parents. It also stressed that more needs to be done in relation to all of the stakeholders taking responsibility for making our content or website accessible for students with disabilities.

**4) Main outcomes highlighting the following:**

**I. Debated Issues**

- Is ICT facilitating the larger person with special needs or is ICT further disconnecting the ties of this community with the world since many websites and information channels are not designed with accessibility in mind? What is the most common barrier to learning for students with disabilities? What is the inclusive education strategy to promote access to the digital world for women and girls with disabilities?
- Olaf Mittelstaedt from DAISY Consortium shared that in New Delhi, there is a four step program that combines the human teaching the human element, with a lot of assistive technology what it does it gets preschool kids who are blind and not normally from very poor economic backgrounds into a normal classroom by a four step process, the first one is mobility, the second one is alphabetization by a Braille. The third one is getting to learn how to use assistive technology in this case a laptop and the fourth one is converting all the textbook material that they will be needed in classroom in an accessible format.

**II. Quotes**

- Darren Britten, ADCET (Australian Disability Clearinghouse on Education and Training) - We have a lot of new tools, a lot of new learning management systems, a lot of new ways to educate and deliver information to students and learning. There are more and more organizations and institutions tht are adopting the web content accessibility guidelines or WCAG guidelines for online content.
- Veronica Ngum Ndi, CAVP (Community Association for Vulnerable Persons) - Women and girls with disability, due to the challenges, face the stigma. They're always forgotten and are left behind. Their needs are most of the time generalized with the communities. We also advocate in schools, to ensure that

women and girls with disabilities may have equal opportunities to access education as an ordinary person.

### **III. Overall outcomes of the session highlighting**

- The benchmark is that assistive technology enables the students to access the curriculum.
- It's easy to content creators to make inaccessible materials. Not everybody has equal access to the technology. Emerging technologies will improve some content, but will continue to widen the barriers. Not all students can afford the latest technologies or have high speed Internet access. Rapid development obviously leaves accessibility out the window and it needs to be retrofitted. more needs to be done in relation to all of the stakeholders taking responsibility for making our content or website accessible for students with disabilities.

#### **5) Main linkages with the Sustainable Development Goals (please specify the SDGs)**

The session is connected to the Sustainable Development Goals:

Goal 3: Ensure healthy lives and promote well-being for all

Goal 4: Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all

Goal 8: Promote inclusive and sustainable economic growth, employment and decent work for all

Goal 9: Build resilient infrastructure, promote sustainable industrialization and foster innovation

Goal 10: Reduce inequality within and among countries

Goal 11: Make cities inclusive, safe, resilient and sustainable

Goal 16: Promote just, peaceful and inclusive societies

#### **6) Emerging Trends related to WSIS Action Lines identified during the meeting**

There are hundreds of assistive technologies available for students to access information. Many of those are free or relatively cheap. Information now is available across several platforms and devices. Everyone is very individualized in terms of what works for them, and it's generally more than one assistive technology.

There are more and more organizations and institutions that are adopting the web content accessibility guidelines or WCAG guidelines for online content.

#### **7) Suggestions for Thematic Aspects that might be included in the WSIS Forum 2022**

Entities with more innovation initiatives in regard to education can be included in the WSIS Forum 2022.



## Assistive technologies promoting accessibility

**Workshop Name:** ICTs and Accessibility for Persons with Disabilities and Specific Needs: Assistive technologies promoting accessibility

**Workshop Link:** <https://www.itu.int/net4/wsis/forum/2021/Agenda/Session/131>

**Organization:** WSIS

**Date:** Thursday, 18 March 2021

### **1) Relevance with the WSIS Action Lines – please specify the Action Lines C1 to C11**

The session is connected to WSIS Action Lines:

- C1. The role of governments and all stakeholders in the promotion of ICTs for development
- C3. Access to information and knowledge
- C4. Capacity building
- C6. Enabling environment
- C7. ICT applications: benefits in all aspects of life — E-learning
- C10. Ethical dimensions of the Information Society

**2) Did your workshop highlight any issues related to COVID-19? If yes, please explain.**

No

**3) Key achievements, announcements, launches, agreements, and commitments**

Assistive technology is life-changing for people in need. Access to assistive technology is a fundamental human right and the need is increasing fast as populations age globally and the prevalence of noncommunicable diseases rise. This session looks at the emerging assistive technologies that bring convenience to persons with disabilities and special needs.

**4) Main outcomes highlighting the following:**

**I. Debated Issues**

- The importance for governments to invest in technology that empowers people with disabilities; the contribution of assistive technology in the teaching-learning process of people with disabilities; the advice for inclusive design.
- Wonder Games are promoted in Pakistan, where lacks federal therapist or psychologist or special educators, or even special schools. There are only 550 schools for more than a million children with special needs, so a lot of them are they cannot access the facilities. Thus Wonder Games are effective solutions.

**II. Quotes**

- Jose Rubinger, Key2enable - As I always say, no one has to be left behind and increasing use of technology in workplaces all over the world has resulted in unprecedented opportunities for people with disabilities to remain in or enter the workforce so technology can be the key that levels the playing field for individuals with disabilities, if their needs are met through the proper system or the adaptive accommodations so governments are in a unique position to harness this prospect, and promote increased employment opportunity with disabilities.
- Muhammad Waqas, WonderTree - what we're trying to do is to use technology to make physiotherapy special education and development of children with special needs affordable, accessible and effective.

**III. Overall outcomes of the session highlighting**

- Governments can develop policies and initiatives to impact their home hiring retention promotion, for example, of individuals with disabilities; they can also use their purchasing power to influence the private sector to do more to hire and retain workers with disabilities.
- Provide affordable technology to everyone and promote inclusive design.

**5) Main linkages with the Sustainable Development Goals (please specify the SDGs)**

The session is connected to the Sustainable Development Goals:

Goal 4: Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all

Goal 5: Achieve gender equality and empower all women and girls

Goal 9: Build resilient infrastructure, promote sustainable industrialization and foster innovation

Goal 10: Reduce inequality within and among countries

Goal 11: Make cities inclusive, safe, resilient and sustainable

Goal 16: Promote just, peaceful and inclusive societies

**6) Emerging Trends related to WSIS Action Lines identified during the meeting**

Through the power of AI many apps can be molded or adopted to the specific users to ensure the accessibility towards ICT and provide convenience.

**7) Suggestions for Thematic Aspects that might be included in the WSIS Forum 2022**

A session on the inclusive design could be organized in the WSIS Forum 2022.

## ICTs and Accessibility for Persons with Disabilities and Specific Needs

**Workshop Name:** ICTs and Accessibility for Persons with Disabilities and Specific Needs

**Workshop Link:** <https://www.itu.int/net4/wsis/forum/2021/Agenda/Session/132>

**Organization:** WSIS

**Date:** Friday, 19 March 2021

**1) Relevance with the WSIS Action Lines – please specify the Action Lines C1 to C11**

The session is connect to WSIS Action Lines:

C3. Access to information and knowledge

C4. Capacity building

C6. Enabling environment

C10. Ethical dimensions of the Information Society

**2) Did your workshop highlight any issues related to COVID-19? If yes, please explain.**

No

### 3) **Key achievements, announcements, launches, agreements, and commitments**

This session looks at the need to promote the accessibility profession, the impact of assistive technologies, the importance of making information accessible to persons with disabilities and specific needs, the use of artificial intelligence in automatic translation into sign language, the role of gamification in the development of children with special needs.

### 4) **Main outcomes highlighting the following:**

#### I. **Debated Issues**

- Focus particularly on the need to promote the accessibility profession, including how to develop assistive technologies and tools to include more people, particularly those with special needs.
- Launched a platform called Connections, which allows 2500 members to ask each other questions, exchange tips and ask for help and find ways of doing things; launched the certificate for the accessible documents specialist, which is in high demand in most organizations; C-board: a platform that helps children and adults with speech impairment; Hand Talk: an application that can help people to learn sign languages.

#### II. **Quotes**

- Axel Leblois, G3ict - To implement accessibility, people need to know what are the barriers in the digital world that those different types of disabilities will actually experience. That also in a very critical aspect of the knowledge that people need to have to run an accessibility forum.
- Martin Bedouret, Cboard - Children with autism or cerebral palsy are prevented to talk from the very beginning of life. I think that technology and ICTs play a major role in helping them and collaborating on language development and emerging technologies.

#### III. **Overall outcomes of the session highlighting**

- Introduction on the accessibility specialist certificate; introduction of successful launches of platforms and technologies that help people with disabilities and special needs
- Design more applications that are accessible to people with disabilities and encourage all stakeholders to join the process and pave the way for the assistive technologies.

### 5) **Main linkages with the Sustainable Development Goals (please specify the SDGs)**

The Session is connected to the Sustainable Development Goals:

Goal 8: Promote inclusive and sustainable economic growth, employment and decent work for all

Goal 9: Build resilient infrastructure, promote sustainable industrialization and foster innovation

Goal 10: Reduce inequality within and among countries

Goal 11: Make cities inclusive, safe, resilient and sustainable

### 6) **Emerging Trends related to WSIS Action Lines identified during the meeting**

More and more assistive technologies are developed to promote inclusive personal development for persons with disabilities and specific needs.

**7) Suggestions for Thematic Aspects that might be included in the WSIS Forum 2022**

Policy-level coordination in the area of assistive technologies could be explored in the WSIS Forum 2020.

Accessible media should not need to be a right – it should be a given

**Workshop Name:** Accessible media should not need to be a right – it should be a given

**Workshop Link:** <https://www.itu.int/net4/wsis/forum/2021/Agenda/Session/322>

**Organization:** ITU Intersector Rapporteur Group Audiovisual Media Accessibility

**Date:** Tuesday, 13 April 2021

## Accessible ICT during the Covid-19 Pandemic

**Workshop Name:** Accessible ICT during the Covid-19 Pandemic

**Workshop Link:** <https://www.itu.int/net4/wsis/forum/2021/Agenda/Session/414>

**Organization:** ITU-T Joint Coordination Activity on Accessibility and Human Factors

**Date:** Tuesday, 4 May 2021

# Cybersecurity Special Track

Opening of the Cybersecurity track: Cybersecurity in the quantum era

**Workshop Name:** Opening of the Cybersecurity track: Cybersecurity in the quantum era

**Workshop Link:** <https://www.itu.int/net4/wsis/forum/2021/Agenda/Session/266>

**Organization:** ITU-T FG-QIT4N/ETSI

**Date:** Thursday, 8 April 2021

**1) Relevance with the WSIS Action Lines – please specify the Action Lines C1 to C11**

Action Line C2, C5

**2) Did your workshop highlight any issues related to COVID-19? If yes, please explain.**

No

**3) Main outcomes highlighting the following:**

The ITU and ETSI jointly organized a webinar on “cybersecurity in the quantum era” on 8 April 2021 as the opening session of the Cybersecurity track at the WSIS Forum 2021 and as the first episode of the Quantum Information Technology Webinar series. It brought together over 300 participants to discuss the merits and perceptions of Quantum Key Distribution (QKD) and Post-Quantum Cryptography (PQC) in the context of what may constitute “good enough” security and quantum-safe roadmaps for future cybersecurity infrastructure. The discussion was structured in two panel sessions as follows:

1. Panel 1: “Good enough” cryptography in the context of 5G, IoT, AI, quantum and more

This panel was moderated by Eleni Diamanti, CNRS and Sorbonne University who led the discussion along three main points i.e., the criticisms of QKD; practical implementations and their use cases and applicability. The panel was composed of: Antia Lamas-Linares (AWS); Manfred Lochter (BSI, Germany); Michele Mosca (University of Waterloo, Canada) and Qiang Zhang (USTC, China) who engaged in a lively discussion that covered:

- The need/urgency to upgrade the security of digital infrastructure in the context of 5G, IoT, AI, critical infrastructures, etc, and what could be done without quantum technology to bolster the resilience of current systems;
- The real potential for quantum cryptography, particularly QKD, to improve security;
- Authentication mechanisms, corresponding challenges, and viable approaches for authentication for QKD;
- The context of what constitutes a solution that is “good enough” from the perspective of data security and practical scalability due to physical layer limitations and integration, and deployment costs; and

- High-priority real-world use cases (present and future) requiring the added layer of protection and resilience offered by QKD.

## 2. Panel 2: Quantum-safe roadmaps: how does industry plan for the future cybersecurity infrastructure?

The second panel discussed approaches and considerations for the inclusion of QKD and PQC in future cybersecurity roadmaps. The panel was composed of: Lily Chen (NIST, USA); Diego Lopez (Telefonica, Spain); Wei Qi (CAS Quantum Network Co., Ltd, China); Margaret Salter (Amazon Web Services (AWS)); Bridget Walshe (Canadian Centre for Cyber Security) and Colin Whorlow (National Cyber Security Centre (NCSC), UK) and moderated by James Nagel, L3Harris Technologies who led the discussion on:

- The intersection of PQC and QKD and where this falls in the future cybersecurity;
- The timeframe to implement PQC and QKD solutions versus the development of quantum computers and other advanced security risks;
- The biggest challenges facing the rollout and scaling of QKD and PQC solutions and the timeframe for resolving these challenges if cybersecurity platforms were to begin to be migrated today;
- The varying views and positions of government agencies on PQC and QKD, and the impact on the recommended/prioritized solutions for adoption in cybersecurity roadmaps; and
- Possible approaches to introduce QKD and/or PQC in cybersecurity roadmaps

### Quotes

*“It is assumed that the more resilient cyber security infrastructure will be necessary, at some point in the future. We recognize it is not a matter of if, but when quantum computers or indeed advances in classical computing will make current encryption solutions obsolete.”*

***Martin Ward, Senior Research Scientist, Toshiba Europe Limited***

*“It is really important to consider various aspects that impact that decision making process of when to incorporate quantum secure cryptographic solutions and these include things like recommendations from relevant security agencies, as well as public and private organizations involved in the cyber security policy landscape from around the world. The commercial landscape which includes both the availability of products and infrastructure to support PQC and QKD as well as the end users, whose business really relies on the security of data, both from the standpoint of what this offers their potential customers and interoperability of services with others. And then finally standards work within the global and national standards development organizations. “*

***James Nagel, Lead Photonic & Laser Systems Engineer, L3Harris Technologies, USA***

*“If you want to achieve security, it will cost something - efficiency and money. For the infrastructure, I would like to remind you the history of the Internet. Without DARPA to build*



*the Internet all over the United States, we couldn't have the Internet. So, the country probably invested a lot that's why we have flagship projects all over the world with people building out the network. There are also two things that are very interesting. One thing is that, since many researchers are working on mini chip products, integrated electronics and optics, this can really reduce the price of the instrument, where of course the main cost is actually not the device but the fiber resource. There are many kinds of applications and, in essence, you can reduce the cost – which is called the quantum Internet together with quantum repeaters.”*

**Qiang Zhang, OSA Fellow, Professor, University of Science and Technology of China (USTC), China**

*“Everyone really should be starting to prepare for quantum computers becoming a reality, you should be having a plan and you should be thinking about your plan. It is not a question of PQC vs QKD, organizations should carefully consider their need for both. The other thing that has come across is that standards work is critically important for both QKD and PQC and we really do need everybody industry government, academia, contributing to standards work. In both spaces, it is also true that standards development organizations, need to be sure that they are cooperating with each other and not competing. It's been shown there's a lot of work going on across both technologies and it's a really exciting time to be in security.”*

**Colin Whorlow, Head of International Standards, National Cyber Security Centre (NCSC), UK**

**4) Main linkages with the Sustainable Development Goals (please specify the SDGs)**  
SDG9

Second Open Consultation on the draft Guidelines for utilization of the GCA

**Workshop Name:** Second Open Consultation on the draft Guidelines for utilization of the GCA

**Workshop Link:** <https://www.itu.int/net4/wsis/forum/2021/Agenda/Session/192>

**Organization:** ITU

**Date:** Monday, 1 March 2021

## Round Table on Cyberlaw, Cybercrime & Cybersecurity

**Workshop Name:** Round Table on Cyberlaw, Cybercrime & Cybersecurity

**Workshop Link:** <https://www.itu.int/net4/wsis/forum/2021/Agenda/Session/333>

**Organization:** International Conference on Cyberlaw, Cybercrime & Cybersecurity

**Date:** Monday, 12 April 2021

### 1) Relevance with the WSIS Action Lines – please specify the Action lines C1 to C11

C5. Building confidence and security in use of ICTs

C7. ICT applications: benefits in all aspects of life — E-learning

C11. International and regional cooperation

### 2) Did your workshop highlight any issues related to COVID-19? If yes, please explain.

The aforesaid Thematic Workshop indeed highlighted the massive changes that are taking place in cyberspace which have a direct connection with Covid-19 and its outspread. In fact, the said Workshop highlighted the need for stakeholders to recognize the emergence of New World Order in Cyberspace. The Workshop highlighted the massive increase of cyber security breaches and instances of cybercrimes at international, regional and national levels during Coronavirus times. The Workshop also highlighted the key Cyberlaw developments that have taken place during Covid-19 times.

### 3) Key achievements, announcements, launches, agreements, and commitments

The Thematic Workshop Round Table on Cyberlaw, Cybercrime & Cybersecurity agreed on and declared the following:-

- i) Irreversible changes are taking place in cyberspace;
- ii) Cyberlaw, Cybercrime & Cybersecurity are important essential elements which need to be kept in mind by digital stakeholders today;
- iii) Cyber Security and its regulation is increasingly engaging center-stage attention today;
- iv) New avatars of cybercrimes are emerging on the landscape;
- v) During Covid-19 times, various national governments are coming up with their cyber legal regulations and frameworks to regulate various activities on the digital platform during Covid-19 times.

### 4) Main outcomes highlighting the following:

#### I. Debated Issues

- Please capture highlights of the main issues discussed and interactions with audience

- Please highlight key achievements and challenges shared by the audience and/or panellists

Dr. Pavan Duggal, Conference Director, International Conference on Cyberlaw, Cybercrime & Cybersecurity, Honorary Chancellor, Cyberlaw University and Chairman of International Commission on Cyber Security Law highlighted the dynamically evolving cyber legal horizon in the times of the pandemic. He highlighted how the world is moving towards a New Cyber World Order as countries are increasingly coming up with strong Cyberlaws and cyber legal frameworks on Covid-19 to enhance the state powers. He highlighted how the Golden Age of Cybercrime has been ushered in the Covid-19 era and why there is a need for more effective legal frameworks to fight the menace of cybercrimes.

He further highlighted the growing menace of increasing cybercrimes and cyber security breaches, having detrimental impact not just upon the sovereign interest of nations but also on Critical Information Infrastructures, healthcare, electricity, power, banking , corporate sectors and governmental networks.

Dr. Duggal also highlighted how increasing growth of cyber security law has emerged as a subset of Cyberlaws. Cyber Security Laws represent a new trend in cyberspace landscape and stakeholders need to be prepared for the transient phase ahead. He also talked about the importance of emerging technologies and their impact upon digital ecosystem, with the increased Darknet attacks haunting digital stakeholders. He further emphasized the need for all of us to adopt cyber resilience and cyber hygiene as also cyber security not just as a way of life but also as an integral part of our day-to-day operations and activities in cyberspace.

Lt. Gen. Rajesh Pant, National Cyber Security Coordinator, Government of India talked about the growing challenges faced by nation states during the time of the pandemic. He highlighted the growing frequency of cyber attacks on national computer networks and the Critical Information Infrastructure of various country. He also highlighted the need for countries to adopt a holistic vision on regulating cyber security and further stressed on the key focus areas that the Government of India has underlined in terms of protecting and preserving cyber security of computer networks and computer resources in India. He also talked about India coming up with its National Cyber Security Strategy in the coming times.

Mr. Alfredo Ronchi, Secretary General of EC MEDICI Framework highlighted the need for criminal justice authorities to engage in full cooperation to detect, investigate, attribute and prosecute newly emerging offences and bring to justice those who had exploited the Covid-19 pandemic for their own vested purposes. He highlighted how malicious actors are exploiting vulnerabilities of people in engaging in phishing campaigns, ransomware and other attacks. He highlighted the distinctive work done in fostering international cooperation.

Prof. Dr Dr h.c. Christoph Stückelberger, Executive Director and Founder of Globethics.net highlighted the key ethical issues and challenges that have arisen at the time of pandemic. He referred to the need for companies to have a “globalance” of global nature which can balance the distinct ethical considerations, with the expectations, rights and duties of various stakeholders. He further highlighted the need for more proactive action for protection and preservation of ethical issues governing human conduct and society.

Dr. Linda S Spedding, Attorney (USA) and Advocate (India) talked about practical challenges faced by corporate during the times of Covid-19. She further highlighted the need for companies to adopt holistic approaches for protecting their data and for inculcating more resilience as part of day-to-day operations.

Mr. Harshdeep Marwah, Chief Growth Officer, iValue Info Solutions Pvt Ltd talked about the immense technical and commercial challenges that increasing cyber attacks on corporate networks are raising for corporates across the world. He highlighted that the concept of perimeter security has lost its relevance today and how companies need to adopt a holistic 360-degree approach on the issue of protecting the cyber security of their computer systems and networks.

Mrs. Kusum Duggal, Eminent Educationist & Vice Chancellor, Cyberlaw University talked about new challenges faced by educational institutions and universities in the pandemic era and also highlighted new strategies that are now being adopted by educational stakeholders in cyberspace to not just enhance the scope of e-learning but also to protect their data and networks.

Mr. Saakshar Duggal, Youth Coordinator, Center Against Cyber Bullying talked about the immense increase of cyber bullying instances during the pandemic times. He highlighted the growing menace of youngsters, both engaging in cybercrime and also becoming victims of cybercrimes during the Covid-19 times. He highlighted key strategies that the youngsters today need to follow in order to prevent themselves from becoming victims of cyber bullying and other emerging cybercrimes during the pandemic era.

## II. Quotes

- Please provide two important quotes from the session and the names & organisation of the person you are quoting

*“The world is passing through unprecedented times in the era of pandemic. Cyberspace today is changing irreversibly with the advent of coronavirus. New Golden Age of Cybercrime, which has begun with the advent of Covid-19, is going to be a long drawn out age where all new and innovative kinds of cybercrimes will increasingly be multiplying in terms of their numbers, their variants and their economic impact.*

*As global cost of cybercrime continues to grow spirally beyond control, very quickly the increasing cyber security breaches targeted at nation states, Critical Information Infrastructure, corporates, governmental institutions and individuals will have to start pushing more and more countries to come up with dedicated national cyber security laws.*

*The policy vacuum at the international levels, is propelling more nation states to take steps at national levels to deal with multinational paradigm of cyberspace. The globe has to be prepared for the New Cyber World Order where growing reliance on cyberspace, coupled with constantly increasing cybercrimes and cyber security breaches, will lead to new cyberspace for all of us in the coming times.*

*Hence, stakeholders have to be thoroughly prepared to meet with the emerging challenges in this regard. They have to increasingly start adopting cyber resilience and cyber hygiene as part of their day-to-day life apart from relying upon cyber security as a daily companion for them in their digital lives.”*

**Dr. Pavan Duggal**  
**Conference Director, International Conference on Cyberlaw, Cybercrime & Cybersecurity;**  
**Honorary Chancellor, Cyberlaw University**  
**Chairman of International Commission on Cyber Security Law**

*“While people are facing difficult and threatening times, while the situation evolves rapidly and governments take measures to protect the population, they must do so without putting societies at greater risk on the longer term. It is only with unity and solidarity, in full respect of the rule of law, human rights and democracy that we will overcome this unprecedented situation.”*

**Mr. Alfredo Ronchi**  
**Secretary General of EC MEDICI Framework**

### **III. Overall outcomes of the session highlighting**

- Main conclusions reached during the discussion are as follows:-
  - i) Very rapid developments are taking place in cyberspace in the context of Cyberlaw, Cybercrime & Cybersecurity;
  - ii) Need for strong cyber legal frameworks to deal with emerging challenges in cyberspace at international, regional and national levels;
  - iii) Cyber security breaches and cybercrimes will continue to keep on increasing. Hence, there is a need for more focused approach to deal with challenges raised by cyber security breaches and cybercrimes;
  - iv) Need for massive push for capacity building and online education in Cyberlaw, Cybercrime & Cybersecurity issues;
  - v) Stakeholders need to adopt flexible, nimble approach while dealing with cyberspace choppy waters of Covid-19;
  - vi) Stakeholders like International Conference on Cyberlaw, Cybercrime & Cybersecurity and Cyberlaw University are contributing in the direction of enhancing discussions and debate on growing issues and challenges concerning cyberspace as also the cause of continuing cyber legal education and capacity building;
  - vii) There is also a need to take into account the emerging technological developments, their distinctive policy and legal challenges as also the impact of growing cyberspace paradigm.
  
- **the vision for implementation of WSIS Action lines beyond 2015**

There is a need for strong partnership for Cyberlaw and cyber security law education which will help strengthen the implementation of WSIS Action Lines beyond 2015. Cyberlaw and cyber security law today are an integral part of modern day life. Creating more awareness and education about Cyberlaw and cyber security law would go a long way towards creating and enabling legal, policy and regulatory frameworks for strengthen the implementation of WSIS till 2025.

**5) Main linkages with the Sustainable Development Goals (please specify the SDGs)**

Goal 17: Revitalize the global partnership for sustainable development

**6) Emerging Trends related to WSIS Action Lines identified during the meeting**

- i) Need for strong Cyberlaw and Cyber Security Law frameworks;
- ii) Need for constantly increasing Cyberlaw and Cyber Security related capacity building;
- iii) Massive focus on cyber security needed to fight the menace of cybercrimes.

**7) Suggestions for Thematic Aspects that might be included in the WSIS Forum 2022**

- i) New changing ground realities in Cyberspace:
- ii) Developments in Cyberlaw in 2022;
- iii) How to fight the menace of Increasing Cybercrimes during and beyond Covid-19?

## Building Cyber Resilience with a Professional workforce

**Workshop Name:** Building Cyber Resilience with a Professional workforce

**Workshop Link:** <https://www.itu.int/net4/wsis/forum/2021/Agenda/Session/293>

**Organization:** International Federation for Information Processing IP3

**Date:** Tuesday, 13 April 2021

### 1) Relevance with the WSIS Action Lines – please specify the Action Lines C1 to C11

C3 - Access to information & knowledge - Exploration of Skills Frameworks and provision of skills align to this action line

C4 - Capacity Building - Discussions are around cybersecurity and resilience capacity building

C5 - Building Confidence & Security in use of ICTs - Discussions are around cybersecurity and resilience capacity building

C7 - ICT applications: benefits in all aspects of life – E-learning - The Skills requirements for cybersecurity and resilience support this action line

### 2) Did your workshop highlight any issues related to COVID-19? If yes, please explain.

Yes, but only briefly because Cybersecurity became an even greater issue with digitization.

### 3) Key achievements, announcements, launches, agreements, and commitments

IFIP Launched the IFIP Code of Ethics in September 2020

IFIP IP3 will be approaching UNESCO with a view to developing a single framework for Cybersecurity Education. The framework will determine the skills requirements for IT Professionals, Cybersecurity experts, as well as End Users and consumers of digital products.

IFIP celebrated its 60<sup>th</sup> Anniversary in 2020. A calendar of virtual events on a variety of subjects is underway in 2021.

### 4) Main outcomes highlighting the following:

#### I. Debated Issues

- a. Cybersecurity is vital for all organisations, but statistics reveal a global skills gap of 3.12 million. This must be addressed urgently, but too many disparate organisations are developing Cybersecurity skills frameworks. The common target for recruitment is “experienced practitioner” but it should be “competent professional”. Alignments of frameworks will facilitate global skills transfer.

- b. Education and training must include formal education as well as Industry certifications. Formal Education provides the foundation, but industry certifications and ongoing training are essential in a discipline as fluid as cybersecurity. It is essential to develop capability. Knowledge as well as experience are vital. We must start with the Professional Profile, then consider competences, and knowledge elements.
- c. We should look at security from an Enterprise Architecture perspective. This provides a view of all the assets which all need to be protected. It also ensures resilience.
- d. There have been major developments on regulation frameworks to protect infrastructure, privacy, and consumers.

**II. Quotes**

- “Everybody is trying to develop a rounder wheel” Professor Steve Furnell, University of Nottingham
- “You can’t protect what you can’t see, so digital assets need to be made visible via the architecture”. Dr Robert Weisman, CEO Build the Vision, Professor University of Ottawa.

**III. Overall outcomes of the session highlighting**

- a. Initiatives to grow a skilled cybersecurity workforce must be encouraged at a government level We must urgently bring parties together to standardize Cybersecurity frameworks and share best practice. IFIP IP3 will work to convene a task force for this work, hopefully in collaboration with UNESCO and ITU. Resilience and agility are required because the goalpost moves all the time.
- the vision for implementation of WSIS Action lines beyond 2015
  - a. AL C5: Building Confidence & Security in use of ICTs – standardization of cybersecurity skills frameworks support this. We must do everything we can to build trust in everything digital.
  - b. AL C7: ICT applications: benefits in all aspects of life – E-learning. Online learning on privacy and security must be made available to the Information & Knowledge Society. This should be mandated nationally, but content must be produced and curated globally.
  - c. Everything discussed supports AL C4 Capacity Building; cybersecurity and resilience support this. If we do not have a clear focus on cybersecurity capacity building is hampered when cybersecurity attacks destroy capacity.

**5) Main linkages with the Sustainable Development Goals (please specify the SDGs)**

SDG 4	Ensure inclusive quality education and promote lifelong learning opportunities for all	Standardization of Skills Frameworks and global standards ensure equitability
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SDG 8	Promote inclusive and sustainable economic growth, employment, and decent work for all	Economic growth in any economy is dependent on trustworthy use of ICT
SDG 9	Build resilient infrastructure, promote sustainable industrialization, and foster innovation	Resilience is the central theme of the workshop

**6) Emerging Trends related to WSIS Action Lines identified during the meeting**

The focus on cybersecurity and how to improve and establish it as a standard is a trend relating to Action Line C5. Although cybersecurity has been an issue in the past, the impact of the COVID-19 pandemic on digitization had brought it into stark focus.

We need to broaden the availability of online learning to end users and consumers to make them cyber-resilient. AL C7 (E-learning). We must ask ourselves whether focus on this Action Line has been by the education sector, whereas in fact it should be a focus for all organisations, public and private.

**7) Suggestions for Thematic Aspects that might be included in the WSIS Forum 2022**

- a. How leadership resilience – or lack thereof – impacts organizational performance.
- b. Fostering innovation – how Information Technology supports and drives innovation, which in turn contributes to the economy, and has the potential to create decent work.
- c. Standardization – how the desire for various organisations to create their own version of something has increased costs and reduced delivery.
- d. Ethical conduct as a business imperative

## Why we need a more inclusive Cybersecurity

**Workshop Name:** Why we need a more inclusive Cybersecurity

**Workshop Link:** <https://www.itu.int/net4/wsis/forum/2021/Agenda/Session/328>

**Organization:** International Telecommunication Union

**Date:** Wednesday, 14 April 2021

## Decentralized identity management: enabling mobile and cloud-ready identity with blockchain

**Workshop Name:** Decentralized identity management: enabling mobile and cloud-ready identity with blockchain

**Workshop Link:** <https://www.itu.int/net4/wsis/forum/2021/Agenda/Session/264>

**Organization:** ITU-T SG17 (Q14/17)

**Date:** Thursday, 15 April 2021

**1) Relevance with the WSIS Action Lines – please specify the Action Lines C1 to C11**

Action Line C2, C5

**2) Did your workshop highlight any issues related to COVID-19? If yes, please explain.**

No

**3) Main outcomes highlighting the following:**

An increased pressure on traditional identity management systems to evolve towards agile and intelligent platforms capable of supporting mobile and cloud-based systems has been observed in recent years. Distributed ledger technologies, or DLTs, offer a solution to this challenge. They provide a trusted infrastructure which enables decentralized identity management systems for the exchange of identity attributes and identity information.

This session provided an overview of securing and using DLT for decentralized identity management and brought together representatives of expert groups to provide a brief overview of using distributed ledgers for the management of identity and identity attributes; analyze the security benefits of decentralized identity; highlight guidance concerning necessary controls that should be used to mitigate threats to identity data; and provide a brief overview of ITU-T Recommendations to secure the DLT.

Following opening remarks from Ms Xiaoyuan Bai, Senior Standardization Expert, Alibaba (China) Co., Ltd., Dr. Youki Kadobayashi (session moderator), Rapporteur, ITU-T Study Group 17, Q14/17 “Security aspects for Distributed Ledger Technologies” guided the discussion on decentralized identity management.

Mr. Ramesh Kesanupalli, CEO Digital Trust networks, founder of the FIDO Alliance and co-founder of the DID Alliance began the session with an in-depth presentation of the global architecture for digital identity (GADI). He elaborated on GADI’s vision and solution for a trustable identity; its core principles, architecture and its current status of development.

This was followed by a presentation on the standardization roadmap for digital identity in ITU-T Study Group 17, delivered by Dr. Abbie Barbir – Rapporteur of ITU-T Study Group 17, Q10/17 “Identity management and telebiometrics architecture and mechanisms”.

The session concluded with closing remarks from the moderator who provided an overview of ITU-T Recommendations to secure DLT and further emphasized the necessity of trust and accountability for

business and society. Accountable digital identities such as those provided using decentralized identity management solutions provide user privacy, no data consolidation, user control and inclusivity. The authentication systems are also key for financial inclusion which is an area of work that the Financial Inclusion Global Initiative (FIGI) has studied on aspects such as Know Your Customer (KYC) and online identity vetting for digital financial services. Standards have already been published related to decentralized identity management and financial inclusion on Fast IDentity Online (FIDO) and Decentralized Identifiers (DID).

## Quotes

*“Today’s digital world is account oriented and we need to move towards an identity-oriented infrastructure. We need to bring in accountability which is completely missing and every effort that you see in the market talks about pushing security and privacy to the edge, but not necessarily accountability. Accountability is the key piece. Without accountability, people will continue to perpetuate the same problem that we have been having today. Just by working with the specification architecture that we are defining at DID alliance, if executed properly, will create an ecosystem where when we start slowly migrating people from the existing infrastructure and existing identity trusted sources to a digital address, everybody who wants to interact with everybody will have two choices; they can go do it the old-fashioned way or use this digital address as an anchor to exactly know who they are dealing with. The lines between the digital world and the real world will be gone.”*

**Ramesh Kesanupalli, CEO Digital Trust networks, Founder - The FIDO Alliance, Co-Founder, DID Alliance**

*“We need to modernize our work when it comes to identity and access management to start at least We need to modernize our work when it take it from the centralized model into a decentralized model or hybrid type model.”*

**Abbie Barbir, Rapporteur, ITU-T Study Group 17, Q10/17 “Identity management and telebiometrics architecture and mechanisms”**

**4) Main linkages with the Sustainable Development Goals (please specify the SDGs)**  
SDG9

## Automotive Cybersecurity

**Workshop Name:** Cybersecurity track: Automotive Cybersecurity

**Workshop Link:** <https://www.itu.int/net4/wsis/forum/2021/Agenda/Session/265>

**Organization:** ITU-T SG17 (Q13/17)

**Date:** Friday, 16 April 2021

**1) Relevance with the WSIS Action Lines – please specify the Action Lines C1 to C11**

Action Line C5

**2) Did your workshop highlight any issues related to COVID-19? If yes, please explain.**

No

**3) Main outcomes highlighting the following:**

In general, standardization is a vital element in building trust and confidence in the use of ICTs and in the context of intelligent transport systems, it is equally vital to ensure the establishment of secure ITS environments.

ITU-T Study Group 17 has been actively engaged in numerous standardization activities on the cybersecurity of intelligent transport systems which has led to the development of a set of standards on the security aspects of connected vehicles and autonomous driving.

This session presented a set of standards that have been developed and that are under development in Question 13 of Study Group 17 and discussed further views on cybersecurity in future automotive environments.

Following opening remarks from Ms. Yi Zhang, Director of Standardization Department at 360 Group, China, Dr. Koji Nakao (session moderator) who guided the discussion on automotive cybersecurity standards. Dr. Sang-Woo Lee delivered the first presentation and set the scene for the discussion by providing an overview on the standardization work of ITU-T Study Group 17 related to the cybersecurity of Intelligent Transport System (ITS) environments, status of the related work items and future plans for the development of recommendations on security aspects of ITS.

This was followed by a presentation that set context on the need for in-vehicle security by Aram Cho Cybersecurity Engineer, Electronics Division, Hyundai Motors Company R&D, highlighting current global trends for in-vehicle cybersecurity solutions. The final presentation of the session was given by Minrui Yan, Head of Sky-Go Car Security Team, 360 Group, China who reviewed practices for security standards for connected vehicles which elaborated on current progress made so far in securing against attacks and an outlook on research being conducted in this field.

The session concluded with closing remarks from the moderator who highlighted core issues to be addressed in future standardization work on ITS within Study Group 17 including platform aspects such as cloud/big data, communication aspects such as 5G and beyond 5G,

technological aspects such as AI/automation detection methods as well as vehicle specific applications such as vehicle multimedia. Future work may also include other aspects of ITS including railway or maritime transport. Effective collaboration was emphasized as a useful tool to enhance standardization work which, Study Group 17 is committed to establishing with other SDOs working in this area.

#### **Quotes**

*“ITS is a broad concept which covers the whole system that includes the infrastructure, vehicles, networks and platforms. Nowadays, we know that for the V2X, the cloud and edge computing are getting very popular. We are focusing on two points when we are analyzing or providing solutions for security. We are considering the connection, because the connection brings the threats to the vehicle. So, we need to focus on the security and the other point is about today’s autonomous cars, because when AI technologies are applied, it also brings a lot of threats. These two are just part of the ITS security, other aspects, for example, network security are also very important to ITS security.”*

**Yi Zhang, Director of Standardization Department, 360 Group, China**

*“One good aspect of standards is that they show us how to utilize technology. In Study Group 17, we do recognize that we need to provide good solutions for emerging applications and other kinds of vehicle environments, i.e. not only in vehicle but outside of the vehicle. It is also getting very important to provide automation with AI, for instance. For collaboration, we need to strengthen the liaison relationship with other SDOs. In the context of car or OEM vendors, it might be difficult to share information because of limited data so we need to consider how to resolve such barriers to get as many solutions as possible.”*

**Koji Nakao, Distinguished Researcher, NICT and Guest Professor, Yokohama National University, Japan**

- 4) Main linkages with the Sustainable Development Goals (please specify the SDGs)**  
SDG9
- 5) Emerging Trends related to WSIS Action Lines identified during the meeting**

## Protecting healthcare against cyberattacks

**Workshop Name:** Cybersecurity special track: Protecting healthcare against cyberattacks

**Workshop Link:** <https://www.itu.int/net4/wsis/forum/2021/Agenda/Session/316>

**Organization:** CyberPeace Institute

**Date:** Monday, 19 April 2021

### 1) Relevance with the WSIS Action Lines – please specify the Action Lines C1 to C11

#### ▪ **C1. The role of public governance authorities and all stakeholders in the promotion of ICTs for development**

The session discussed the ways in which the pandemic accelerated the mainstreaming of ICTs in relation to the healthcare and made urgent calls for stakeholders to protect the sector. Specific recommendations were made during the discussion to foster partnerships between state and non-state actors to prevent other disruptive cyberattacks against hospitals, vaccine facilities and supply chain providers.

#### ▪ **C3. Access to information and knowledge**

The panelists highlighted the limitations in sharing information and knowledge of vital relevance to the protection of medical facilities in times of crisis and the need to build new information exchange models to protect the sector against targeted attacks.

#### ▪ **C5. Building confidence and security in the use of ICTs**

The session focused on concrete measures that states can take, in cooperation with other stakeholders, in order to limit threats against the healthcare sector and increase trust and confidence in secure services, in direct response

#### ▪ **C11. International and regional cooperation**

This session explored state actions, legal safeguards, industry commitments and cooperation opportunities that the healthcare sector can benefit from in order to strengthen protection and resilience against cyberattacks.

### 2) Did your workshop highlight any issues related to COVID-19? If yes, please explain.

The session focused on the cyber risks faced by the healthcare sector during COVID times, as attacks on hospitals and vaccine facilities have been on the rise. Whether the treatment time for patients has to be adjusted since nurses and doctors have to revert to pen and paper for their work, or the rollout of COVID-19 vaccines has been impacted, ultimately it is human lives that are put at risk due to cyberattacks. The measures available to mitigate these risks were also explored in the workshop, with a focus on better protecting citizens and healthcare as a whole.

### 3) Key achievements, announcements, launches, agreements, and commitments

#### 4) Main outcomes highlighting the following:

##### IV. Debated Issues

- *Please capture highlights of the main issues discussed and interactions with audience*
- Mechanisms for cooperation between governments, industry and civil society to protect healthcare
- Emerging normative framework around critical infrastructure and specific protections for healthcare
- Clarifications on how the existing international law, including humanitarian law and human rights law, applies in cyberspace and can provide protections for healthcare
- The need for generalized cyber-hygiene and education
- *Please highlight key achievements and challenges shared by the audience and/or panellists*
- Greater exchange of cyber-threat intelligence and information sharing for the healthcare sector, accompanied by a culture change around information disclosure.
- Incentivising strategic litigation and resource sharing for legal purposes.
- Seeking dialogue with those conducting operations against the sector and supporting states to strengthen their domestic legislative framework and build resilience of the healthcare facilities.
- Building awareness among member states about the expertise and capacity that exists to prevent attacks and increase resilience in the healthcare sector.

##### I. Quotes

- Please provide two important quotes from the session and the names & organisation of the person you are quoting

**Marko Milanovic, University of Nottingham:** “As it stands today, international law does not have cyber specific rules, or even healthcare specific rules, for the types of scenarios we are seeing.”

**Annalaura Gallo, Cybersecurity Tech Accord:** “The situation is becoming more and more unbalanced: on the one hand, we have very vulnerable organizations, as well as their workers and their patients; on the other hand, we have sophisticated state and non-state actors engaging in malicious activities.”

##### II. Overall outcomes of the session highlighting

- *main conclusions reached during the discussion*

The panelists agreed that the impact of cyberattacks on healthcare in times of pandemic needs to be urgently addressed and reduced in the future by:

- 1) strengthening the resilience of the sector
- 2) offering better technical and legal protections
- 3) increasing the costs of violating norms regarding critical infrastructure
- 4) cooperating with various stakeholders and pooling expertise to address existing challenges

- *the vision for implementation of WSIS Action lines beyond 2015*

The implementation of WSIS Action lines C1, C3, C5 and C11 as recommended by the panelists , alongside the prioritization of healthcare as a vital sector, would help us achieve a state of cyberpeace, when the world's digital ecosystems ensure the protection of human security, dignity and equity.

**5) Main linkages with the Sustainable Development Goals (please specify the SDGs)**

The session explored how state action to protect hospitals, medical facilities and related supply chains against cyberattacks can advance the right to health and access to basic services, as well as foster a more just society, covering SDG 3, 9, 16 and 17.

**6) Emerging Trends related to WSIS Action Lines identified during the meeting**

Societal impact assessment, human centricity and accountability.

**7) Suggestions for Thematic Aspects that might be included in the WSIS Forum 2022**

Critical infrastructure protections

Accountability for attacks and malicious behaviour in cyberspace

## **ICTs for Well-being and Happiness Special Track**



## Opening of the ICTs for Well-being and Happiness special track

**Workshop Name:** Opening of the ICTs for Well-being and Happiness special track

**Workshop Link:** <https://www.itu.int/net4/wsis/forum/2021/Agenda/Session/230>

**Organization:** WSIS

**Date:** Monday, 15 March 2021

**1) Relevance with the WSIS Action Lines – please specify the Action Lines C1 to C11:**  
C1, C3, C4, C7 (E- HEALTH, E- AGRICULTURE), C10

**2) Did your workshop highlight any issues related to COVID-19? If yes, please explain:**  
In this enforced period of social distancing when one is bound to their homes, one's routine life can get mundane and thus it may get hard to be at peace. Thus, this session was of importance.

**3) Key achievements, announcements, launches, agreements, and commitments:**

- Mr Diego Ruiz Proano joined ITU as Chief of the Human Resources Management Department on 1st March 2021

**4) Main outcomes highlighting the following:**

**I. Debated Issues**

- Please capture highlights of the main issues discussed and interactions with audience
- focusing on efforts and success stories to promote healthy lives and well-being for everyone at all ages through ICTs, in the context of COVID-19 pandemic. This effort is also part of an initiative to address SDG 3 (Good health and well-being) that aligns with the WSIS Action Lines of:
  - C1: The role of Governments and all stakeholders in the promotions of ICTs for Development
  - C3: Action to Information Knowledge
  - C4: Capacity Building
  - C7: E- Health
  - C7: E- Agriculture
  - C10: Ethical dimensions of Information Society.
-

- Please highlight key achievements and challenges shared by the audience and/or panelists

## II. Quotes

- Please provide two important quotes from the session and the names & organisation of the person you are quoting
  1. The most obvious benefit of ICTs in this challenging period is that they enable us and they keep nourishing our relationships- family, social, romantic but also work relationships through lowering the cost of communications and promoting the quality...
    - Ms. Sophie d’Hooghe (Founder, SoHappy)
  2. ICTs which are Information and Communications Technology and well-being and happiness... is a rational choice for leaders around the world to meet our current and future needs.” “This track is not only fitting but also the need of the hour.
    - H.E. Karma D. Wangdi,  
Ministry of Information and Communications, Bhutan

## III. Overall outcomes of the session highlighting

- this track will really benefit people from around the world in this most challenging time.
- Happiness and well- being are as important as economic development for a nation

5) **Main linkages with the Sustainable Development Goals (please specify the SDGs):** SDG3, SDG16

6) **Emerging Trends related to WSIS Action Lines identified during the meeting:**N/A

7) **Suggestions for Thematic Aspects that might be included in the WSIS Forum 2022:** N/A

## Workplace well-being and happiness

**Workshop Name:** ICTs for Well-being and Happiness special track: Workplace well-being and happiness

**Workshop Link:** <https://www.itu.int/net4/wsis/forum/2021/Agenda/Session/282>

**Organization:** WSIS

**Date:** Wednesday, 17 March 2021

**1) Relevance with the WSIS Action Lines – please specify the Action Lines C1 to C11- C1, C2, C3, C7 (E- BUSINESS, E- LEARNING, E- EMPLOYMENT)**

**2) Did your workshop highlight any issues related to COVID-19? If yes, please explain-** This session aims to look at the ways in which individuals and organisations have tackled the challenges posed by COVID 19 and their attempts and successes in promoting happiness and well-being in a workplace setting.

**3) Key achievements, announcements, launches, agreements, and commitments- N/A**

**4) Main outcomes highlighting the following:**

**I. Debated Issues**

- Workplace well- being is one of the key factors that determine the effectiveness of the organization. It entails a holistic account for all aspects of working life, from the quality of work to safety at workplace.

**II. Quotes**

- It's important to recognize that happiness is a journey.
  - Suzanne Dee Pedersen, ADB
- You know, people are our greatest assets, but let's finish that sentence by they our greatest assets let's treat as such.
  - Danijela Milic, United Nations

**III. Overall outcomes of the session highlighting**

**5) Main linkages with the Sustainable Development Goals (please specify the SDGs): SDG 3,4,8**

**6) Emerging Trends related to WSIS Action Lines identified during the meeting: N/A**

**7) Suggestions for Thematic Aspects that might be included in the WSIS Forum 2022: N/A**

# WSIS TalkX

## UN World Wildlife Day: ICTs for wildlife conservation (part 2)

**Workshop Name:** WSIS TalkX: UN World Wildlife Day: ICTs for wildlife conservation (part 2)

**Workshop Link:** <https://www.itu.int/net4/wsis/forum/2021/Agenda/Session/224>

**Organization:** WSIS

**Date:** Wednesday, 3 March 2021

**1) Relevance with the WSIS Action Lines – please specify the Action Lines C1 to C11**

C7, C11

**2) Did your workshop highlight any issues related to COVID-19? If yes, please explain.**

- Covid minimized tourism in national parks which had an impact on livelihood of local people and antipoaching work. There are reports of an increase in poaching because of lack on income.
- Covid is a zoonotic disease, transmitted from animals to humans
- Covid reminded us that there is just one health: human health and the health of the ecosystem and the living organisms that share this planet with us

**3) Key achievements, announcements, launches, agreements, and commitments**

- Bringing people together for information sharing and collaboration
- Connection between people: beginning of a long conversation

**4) Main outcomes highlighting the following:**

**I. Debated Issues**

- Please capture highlights of the main issues discussed and interactions with audience
- Please highlight key achievements and challenges shared by the audience and/or panellists

- a) *What is illegal wildlife trade and why is it a problem?*
- b) *What are the available technologies that can be used for wildlife and habitat protection?*
- c) *How can these technologies be leveraged for use on a bigger scale?*
- d) *What are the challenges and how can we step up ambition?*

- Cutting edge technology, such as acoustics, optic recognition and tracking systems provide great solutions for early warnings so that rangers can respond to threats from poaching, human-wildlife conflict, or habitat destruction.
- Other useful ICT solutions are citizen science platforms for identification of species and information sharing sites for example for legal data.

#### Challenges:

- Technology: Wildlife crime is going digital. We need to stay one step ahead and bring cutting edge technology on the ground.
- People: How do we build the ongoing technical capacity to use and maintain the solution?
- How to sustain the technology beyond the grant period? Need for inventing new operating models where the commercial sector can subsidize costs for social impact projects.
- Investment readiness: Lack of pipeline for large scale projects ready for investment & investment in pilots needed.
- One of the main drivers of illegal wildlife trade is the low risk of detection and prosecution. Countries need to amend the laws to recognize that this is a serious crime.

#### II. Quotes

- Please provide two important quotes from the session and the names & organisation of the person you are quoting

“New technologies represent a great opportunity to provide new ways to contribute meaningfully to biodiversity conservation, for example through effective implementation of the law, [...] but capacity is key for effective implementation.” Dr. Alejandro Iza, IUCN Environmental Law Centre

#### III. Overall outcomes of the session highlighting

- main conclusions reached during the discussion
- the vision for implementation of WSIS Action lines beyond 2015
- Technology is key. On the ground, for sensitization, access to and sharing of information, and collaboration but capacity is key to ensure effective implementation of these technologies.
- Important to leverage and engage local (and online) communities to promote wildlife conservation on the ground with local partners. How can the local community benefit from the technology and connectivity for educational and entrepreneurial purposes?
- Species identification work is a big need and should be scaled up

- There is great potential for developing apps and anonymous reporting of suspicious activities and how this could work in the ecosystem of protected areas
- Technological solutions can be developed, but other factors are important too such as political will, social organization, access to information and justice, etc.
- It is a collective task. We need to work more together and collaborate with NGOs, private and public sector, UN, to come up with investment-ready projects on a big scale to really make a change.

**5) Main linkages with the Sustainable Development Goals (please specify the SDGs)**

SDG15 & 17

**6) Emerging Trends related to WSIS Action Lines identified during the meeting**

**7) Suggestions for Thematic Aspects that might be included in the WSIS Forum 2022**

ICTs for biodiversity conservation

# Emerging Technologies for Sustainable Development Special Track

Joint forces in the new device financing program to make 4G even more affordable for emerging markets

**Workshop Name:** Joint forces in the new device financing program to make 4G even more affordable for emerging markets

**Workshop Link:** <https://www.itu.int/net4/wsis/forum/2021/Agenda/Session/390>

**Organization:** KaiOS Technologies, Inc.

**Date:** Wednesday, 28 April 2021

## 1) Relevance with the WSIS Action Lines – please specify the Action Lines C1 to C11

- C1: The role of governments and all stakeholders in the promotion of ICTs for development
- C2) Information and communication infrastructure: an essential foundation for an inclusive information society
- C3) Access to information and knowledge
- C4) Capacity building
- C7) ICT applications: benefits in all aspects of life
- C11) International and regional cooperation
- C12) Achieving the WSIS target

## 2) Did your workshop highlight any issues related to COVID-19? If yes, please explain.

Affordability is one of the main barriers to mobile internet adoption. With COVID-19, more Pakistani are not getting the wages they used to have, so owning an internet-enabled device becomes a low priority.

## 3) Key achievements, announcements, launches, agreements, and commitments

The new device financing program is introduced, with the partnership of KaiOS, Jazz, Swift Biz Solutions, Finja Lending Services Limited, and the support from Pakistan Telecom Authority.

This new initiative could help drive down the cost of internet-enabled devices and ultimately lead to greater digital inclusion.

#### 4) Main outcomes highlighting the following:

#### IV. Debated Issues

- **Background: Internet access in Pakistan**
  - 50% of Pakistani on 4G, still a lot remain unconnected especially those in rural areas and women are left behind
  - However, a good number of 4G is connected to Jazz's internet. In 2020, over a million users are connected to 4G internet each month
- **Challenge 1: 2G is not shrinking while 4G is growing**
  - Affordability is the major issue, as users are afraid to use up the data quickly
  - 2G devices can be bought as low as \$2-3 which accelerates the 2G adoption
- **Challenge 2:**
  - In Pakistan, the carriers only focus on airtime, while the retailers are selling devices only. The two do not match and cannot recommend a suitable handset for a customer.
  - It does not become a priority for many Pakistani to own an internet-enabled phone when COVID-19 struck hard, as many suffered from lower wages than before
- **Challenge 3:**
  - Most of the users in Pakistan do not have credit scoring history
- **Solution 1:**
  - Launching the KaiOS-enabled Digit devices, targeting the 2G users and position it as a "button-smartphone" with rich apps
  - Seeing a significant migration from 2G to 4G as there's a huge gap of the 2G and 4G device price point. This KaiOS-enabled Digit device is the first phone for many 2G users in Pakistan to get onboard to an internet phone
- **Solution 2:**
  - Initiating a device financing program so users would only have to pay an upfront cost of a cheap 2G feature phone, and do a monthly repayment of less than \$3.
- **Solution 3:**



- Issuing the smart, computerized identity card of the Pakistan government helps Finja Lending Services Ltd to build credit scoring to serve the underserved population
- Credit assessment can be done based on Finja's proprietary algorithm to note the person's profile that's governed by the Authority
- Working closely with Jazz to lock the devices if the user is not paying their repayment to limit their usage

#### **V. Quotes**

- Mr. Asif Aziz, CCO of Jazz – “The 4G Digit phone that we've been launching with the KaiOS operating system, with some in-built apps. Honestly we've marketing this to the particular segment we want to talk to, not the smartphone segment as it's not for them. But a “button-smartphone” [to the 2G users] so people can somehow relate to what they've been using today, and yet help them to get on the smartphone scenario.....What we've observe for this one is the actual migration of 2G to 4G is significant. For most people it's their first 4G connection. The usage is almost on par of the some of the usage of those who use a smartphone.”
- Mr. Abdul Rehman Mahmood, CEO of Swift Biz Solutions icolas Zibell – “To improve the overall internet penetration, the public and private stakeholders have to work towards a direction to remove the barrier of affordability. Device financing program have an immediate impact on the improvement of affordability to migrate people from 2G to 4G. One major roles lies with the regulator, that is the PTA here, to safeguard the financing of the financier .... so they will be happy to invest in the country. Customers using the phones on KaiOS currently are consuming huge data of 5GB so this clearly shows that there is a huge demand. All we have to do now is to make sure these products are affordable for everyone. ”

#### **VI. Overall outcomes of the session highlighting**

- There's the need to expand mobile internet access in Pakistan by addressing affordability issue which can be done by the new device financing program
- Even for users who have no credit scoring history, with the Finja's algorithm and smart identity card supported by the government, they can also provide lending services to eligible users and this is all governed by the government
- Ensuring this device financing program can be run in all mobile outlets country-wide
- Keeping and driving the population to have faith and psychologically prepared that they should be getting on to the digital services now which is essential for them, and this can eventually accelerate the “Digital Pakistan” vision

- Creating the right partnerships, building the credit scoring, and finding the funds for the low-income segment are major issues to tackle

**5) Main linkages with the Sustainable Development Goals (please specify the SDGs)**

- a. GOAL 1: No Poverty
- b. GOAL 5: Gender Equality
- c. GOAL 8: Decent Work and Economic Growth
- d. GOAL 9: Industry, Innovation and Infrastructure
- e. GOAL 10: Reduced Inequality
- f. GOAL 11: Sustainable Cities and Communities
- g. GOAL 17: Partnerships to achieve the Goal

## Emerging Technologies for Sustainable Development special track: AI and its role in dealing with pandemics

**Workshop Name:** Emerging Technologies for Sustainable Development special track: AI and its role in dealing with pandemics

**Workshop Link:** <https://www.itu.int/net4/wsis/forum/2021/Agenda/Session/313>

**Organization:** Open Health Network

**Date:** Tuesday, 6 April 2021

# ICTs and Youth Special Track

Opening of the ICTs and Youth Special Track

**Workshop Name:** Opening of the ICTs and Youth Special Track

**Workshop Link:** <https://www.itu.int/net4/wsis/forum/2021/Agenda/Session/425>

**Organization:** WSIS, ITU

**Date:** Wednesday, 21 April 2021

## ICTs and Youth track: International Girls in ICT Day

**Workshop Name:** ICTs and Youth track: International Girls in ICT Day

**Workshop Link:** <https://www.itu.int/net4/wsis/forum/2021/Agenda/Session/426>

**Organization:** WSIS

**Date:** Thursday, 22 April 2021

## ICTs and Youth track

**Workshop Name:** ICTs and Youth track

**Workshop Link:** <https://www.itu.int/net4/wsis/forum/2021/Agenda/Session/429>

**Organization:** WSIS

**Date:** Friday, 23 April 2021

# Exhibition

# WSIS Forum Partners 2021



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# Closing Ceremony

The Closing Ceremony session was held on 21 May 2021. The session preceded by providing highlights and key outcomes of the overall WSIS Forum 2021 that began since January. More information on the highlights and outcomes is available online [here](#).

Mr. Houlin Zhao, Secretary-General of ITU delivered his opening remarks and thanked the WSIS community for the continuous support and commitment.

Ms. Marielza Oliveira, UNESCO, underlined UNESCO’s commitment to the WSIS process. She highlighted that UNESCO will launch a Decade of Indigenous Language, which runs until 2032. Aligning with this activity, UNESCO is proposing a hackathon on a similar theme for the next WSIS Forum.

Ms. Scarlett Fondeur, UNCTAD, highlighted the importance of digitalization and shared UNCTAD’s role as the outgoing Chair of the UNGIS (2020-2021) by initiating a virtual dialogue on the role of digitalization in the decade of action.

Ms. Minerva Novero-Belec, UNDP, expressed her appreciation towards ITU, co-organisers, UN families, and all stakeholders. She looked forward to continuing the collaboration with more impactful and meaningful work in the coming years.

Ms. Natalia Babekina, Russian Federation, as the representative of the WSIS Forum 2021 Chairman underlined the urgent need for regular exchange as a means of cooperation to achieve the SDGs.

Ms. Mashael Al-Hammadi, Qatar, conveyed Qatar’s appreciation as the Gold Partner of the WSIS Forum 2021. Qatar is committed to reach the global goals by 2030 and is looking forward to continue working together.

The session followed by testimonials and suggestions from WSIS stakeholders who participated actively throughout the WSIS Forum, as below:

Name	Remarks
Thinley Dorji - Bhutan	<i>I would like to convey the gratitude of the Honorable Minister and the Secretary for the Ministry of ICT to the ITU Secretariat, the WSIS secretariat and all the partners for giving us the opportunity to share our ICT experiences during pandemic. We would like to reiterate here that the WSIS Action Lines has always been the guiding principle during our policy and planning formulation and we are sincerely looking forward to working with the ITU and the WSIS secretariat in the forthcoming years. We would like to congratulate the ITU and the WSIS secretariat once again for successfully conducting this WSIS Forum 2021. Thank you all.</i>
Prof NK Goyal – CMAI India	<i>A large portion of the world is still unconnected and the COVID has made us realize that connectivity collaboration has been the key. We have recommendations that let us try to do</i>

	<p><i>something sincerely and the tendency on the part of governments of the states, countries is to wait for the new technology. I have found that the education now moving online. Every teacher who earlier physically was teaching is now teaching online. We would like to have some type of understanding, some type of group for this thing. The cyber has become very critical, as we all know, and we have requested that we should have some type of activities or need for real time quantified cyber dust for the team management.</i></p>
<p>Mei Lin Fung - People Centered Internet</p>	<p><i>I have a suggestion for increasing gender participation for WSIS in 2022. Considering a covid disaster - clearing house utility can allow us all to work together and allow small, medium enterprises to participate fully in COVID response. Women can help to increase the focus on beneficial outcomes for children, families, homes, communities, the vulnerable and our planet. These are the areas that have been overlooked in the technological development, which has been led a lot by men. So, women can come together to drive the utility that can help us all and help the next generations and achieve the SDGs. Thank you.</i></p>
<p>Dipendra Manocha - DAISY Consortium</p>	<p><i>A big concern is the digital divide or the lack of digital literacy amongst persons with disabilities, especially has a huge bad impact, which needs to be addressed and that is something that has got highlighted extremely strongly during this COVID times. The accessibility track brought together so many good practices of standards and validation tools, etc. There were so many excellent examples that came out through the accessibility track. Once these things are done correctly, the accessibility and universal design is a kind of an investment that will empower a very large percentage population. Taking learning from this fully virtual WSIS, congratulations to the whole team and the organizers and partners for a successful WSIS Forum 2021. Thank you.</i></p>
<p>Sidharth Suvankar Nayak – Sync Up</p>	<p><i>We made social media platforms, connecting people with Dementia Alzheimer's. This is a simple device that will ask you a daily routine, what you are you doing, what you want. If you will connect with it and you can talk to your family members or everyone across the board, having the same interest or having the same</i></p>

	<i>scary, you can share your entire day. We have also given you a Medicine track that can keep track of your diet and of your diseases, and it basically helped me.</i>
Heba Al Heraki - Bevol Elderly Club	<i>“We will” is an international social media platform specialized in volunteering work and community service. It is currently available in five languages, and we already have 10s of thousands of volunteers from more than 175 countries around the world. We have been working to make volunteers able to contribute to achieving the sustainable development goals via technology. We invite all parties participating in this global forum, as well as those interested in serving the elderly to cooperate with us to reach the largest number of possible of both elderly people and volunteers who wish to serve the elderly people so that they can use the platform and benefit from services and features in order to achieve a better life, thank you very much.</i>
Ian Philp - Age Care Technologies	<i>Thanks to WSIS for a fabulous summit. Age care technologies are built on a simple insight that we should respond to the challenge of population aging by focusing on the things which really matter to older people. Our vision is to use digital communications technologies and a business model to encourage uptake of the Medicare technologies, assessment and response tool which has been developed over 30 years and 50. It helps older people report the things which really mattered to them, and it helps mobilize technologies products and services to meet their needs, and I hope we can connect to the hackathon winners, so we can bring their technologies to the older people who will benefit. We are aware of our responsibility to accomplish our mission.</i>
Michael Hodin – GCOA	<i>We brought healthcare aging financial service technology, transportation companies together with private and public sector engagement. I am hoping and expecting we can take this to another level, next year, and of course the hackathon and again, congratulations to all the winners. We would like to thank WSIS and your team for the great partnership and Malcolm Johnson has been just a fabulous partner over the course of these months. We thank ITU for its relationship</i>

	<i>and are looking forward to this beam just the beginning for another engagement in 2022.</i>
Dhwani Trivedi	<i>This year, youth continue to gather into even greater numbers, especially due to the virtual nature of the event. One outcome of this is the creation of the business youth campaigns. We believe in the bright future of the special track. We would like to work together in scaling it up by campaigning to our networks and community about the importance of the three key pillars: 1) Stronger youth engagement in the international development 2) ICTs in the youth track at the WSIS forum as the youth voice simplifier 3) Promoting the use of ICT is among the global youth</i>
Aarti Holla-Maini - ESOA	<i>As every year, it has been our pleasure to participate in the WSISforum and, like last year, this year has remained pivotal for the digital ecosystem. I would characterize it by noting a clear change in mindset, first, we have embraced meaningful connectivity, a concept that conveys our shared vision for people on all continents that everyone should have connectivity that will truly transform their lives lift them out of poverty and be an equalizer in terms of the opportunities that gives them. Then embracing inclusion at so many different levels, starting with people so that national broadband plans, I called on, not just to enable 5G and cities but also could connect rural areas as part of the same equation. We have seen so many examples of meaningful connectivity from different solutions that there is an absolutely clear vision of a technology inclusive ecosystem. Finally, inclusion in terms of collaboration, which is the only way to drive sustainable models for affordable connectivity that can be deployed quickly based on partnerships leveraging existing solutions.</i>
Olga Cavalli - South School on Internet Governance	<i>The South School on Internet Governance that I lead that we created in 2009 is focused on bringing more people more professionals from Latin America in all these processes and with the WSIS process, IGF, Internet governance ecosystem, so we are working in the region, and I am really fascinated about this process. This time I was very much involved so. We look</i>

	<i>forward to working with WSIS with the increasing participation of Latin America.</i>
Anh Thu Duong – Geneva Cities Hub	<i>It was very important to include mayors in the discussion, given the role that cities play in the deployment of digital infrastructure in delivering public services through digital means in setting up multi stakeholders framework to innovate, to regulate and promote ethical digital values such as inclusion and digital sobriety. The universities have precisely been set up to support efforts aiming at facilitating the inclusion of cities in multilateral debates and, as you said, getting jelly. The presence of Mayors at the resists was very modest this year but we will definitely be more ambitious next year. Mayors have expressed the desire that the WSIS will be used to promote the sharing of digital know how and the exchange of experiences amongst cities. We look forward to building up on these events and continuing collaborating with you. Thank you so much.</i>
Nigel Hickson – United Kingdom	<i>It's been an absolute pleasure to be a witness to this fantastic collaborative event of the WSIS Forum. The amount of effort and work that has coming from the WSIS secretariat from all across ITU and many other different agencies has been truly inspiring and it has shown since this process started in June how's everyone coming together can really produce something that's worthwhile and meaningful for us and in the UK, with the focus on COVID-19.</i>
Morten Meyerhoff Nielsen (UNU)	<i>We are happy to facilitate our partnerships with both public and civil society actors, but also government and other international organizations, through WSIS. One of the key things that we saw was not only the progress that has been made on the SDGS but also that some of them, unfortunately, have stagnated, or even been submitted by the pandemic acceleration of digital transformation. Where we see some progress, we also see that there's potential problems in monitoring and measuring.</i>
Dr Rakesh L	<i>WSIS is such a platform which provides an opportunity for collaborations, partnerships for a goodwill. I am grateful to the opportunity and thank you very much.</i>

## Quick Links

- **WSIS Forum 2021 Official Website:**  
<https://www.itu.int/net4/wsis/forum/2021/>
- **Open Consultation Process:**  
<https://www.itu.int/net4/wsis/forum/2021/Home/Consultations>
- **Agenda:**  
<https://www.itu.int/net4/wsis/forum/2021/Agenda>
- **Facebook WSIS Process:**  
<https://www.facebook.com/WSISprocess>
- **WSIS Flash:**  
<http://groups.itu.int/stocktaking/WSISFlash.aspx>
- **Twitter WSIS Process #WSIS:**  
<https://twitter.com/wsisprocess>
- **WSIS on YouTube:**  
<http://www.youtube.com/wsisprocess>
- **WSIS Stocktaking:**  
[www.itu.int/net4/wsis/stocktakingp/en](http://www.itu.int/net4/wsis/stocktakingp/en)
- **WSIS COVID-19 Repository:**  
<https://www.itu.int/net4/wsis/stocktaking/Surveys/Surveys/Submit/15863048637525604>
- **United Nations Group on the Information Society:**  
[www.ungis.org](http://www.ungis.org)
- **Partnership for Measuring ICT for Development:**  
<http://www.itu.int/ITU-D/ict/partnership/>

For further information please write to the WSIS Secretariat at: [wsis-info@itu.int](mailto:wsis-info@itu.int)