



17th World Telecommunication/ICT Indicators Symposium

“Towards an inclusive digital society”

1 to 3 December 2020

Online event

FINAL REPORT



Introduction

The 17th World Telecommunication/ICT Indicators Symposium (WTIS-20) took place online, from 1 to 3 December 2020. It was organized by the International Telecommunication Union (ITU). The Symposium attracted 370 participants from 102 Member States, 20 ITU-D Sector Members and 6 Academia, along with participants from an observer entity (Resolution 99), the United Nations and its specialized agencies, and guests. The work of WTIS-20 was conducted under the chairmanship of Mr. Anshu Prakash, Secretary, Department of Telecommunications, Government of India.

The outcomes of the Symposium will provide strategic guidance to the national and international community, including ITU, in the field of ICT statistics, and strengthen the collaboration among the global ICT statistics community.

Further information, including the agenda, the presentations delivered, media information, videos and photos are available at:

<https://www.itu.int/en/ITU-D/Statistics/Pages/events/wtis2020/default.aspx>.

Tuesday 1 December 2020

Opening ceremony

Mr. Houlin Zhao, Secretary-General of the ITU, opened the meeting and welcomed all participants. He reminded participants that the virus has changed our lives forever, showing the importance and potential of ICT to achieve a new level in society. He affirmed the need to move towards a digital inclusive society, echoing the theme of this year's Symposium. He stressed that the data released by ITU the day before the Symposium sent a clear message that accelerating infrastructure, especially in rural areas, is an urgent priority, in order to building back better. He further highlighted that the power of the Symposium is that it brings together the users and the producers of this data, ensuring that all speak the same language. Finally, he thanked the Chair of the meeting, India's telecom secretary Mr. Anshu Prakash.

Mr. Anshu Prakash, Secretary, Department of Telecommunications, Government of India and Chair of WTIS, affirmed that the global pandemic faced today highlights the importance of an inclusive digital society. In situations of lockdowns, curfews, restrictions on national and international travel, quarantine, hospitalization, etc., digital communication networks connect countries, organizations, and families. It would be impossible to fight the pandemic and the virus without the strength and artillery which digital communications places at our disposal.

He stated that an inclusive digital society must bridge various gaps and divides, including a lack of digital literacy and skills, problems faced by the geriatric population, and requirements of persons with special needs, while reaching out to marginalized groups and communities. These challenges must be addressed by the ITU to achieve the goal of an inclusive digital society, in partnership with governments, business, academia, scientists, innovators and civil society.

He concluded by saying that ICT indicators are an important tool to measure and monitor progress, identify actionable items and guide policies to be formulated or adopted for transiting through a digital society. These indicators must be realistic, outcome focused, flexible, while factoring in that countries start from different baselines.

Ms. Doreen Bogdan-Martin, Director, Telecommunication Development Bureau, ITU, thanked the Chair, Mr. Anshu Prakash and the Secretary General of the ITU, Mr. Houlin Zhao, and welcomed participants. She started by saying that the COVID-19 pandemic underscored the importance of this year's theme towards a digitally inclusive society. In today's digital economy, meaningful digital access needs to be considered as a fundamental pillar, supporting the functioning of every society.

She continued by providing the audience with a few highlights from *Measuring digital development: Facts and figures 2020*, which was released the day before the Symposium. The report showed that mobile cellular subscriptions are declining for the first time in history and that global growth in mobile broadband subscriptions is levelling out. It is still too early to tell though whether this is a result of the COVID-19 crisis or if there are other, complex factors at play. Another worrying trend reported was the slowing growth in the rollout of communications infrastructure. On a more optimistic note, young people everywhere are enthusiastic adopters of the ICTs. However, she continued, many of them still lack a high-quality Internet connection at home, which would be further confirmed by a joint UNICEF-ITU report to be released later that day.

She then provided participants with an update on the ICT Development Index, informing them that despite the hard work of the expert groups and discussions at the virtual consultation of the ITU Council, consensus had not been reached, meaning that there would be no index published this year, and that she would be seeking further guidance from the ITU Council. In the meantime, constituents will be provided with the data and insights they need in order to be able to better track and understand digital transformations and inform decision making. This will be done through reports in the measuring digital development series, a revamping of the data portal to significantly improve the user experience, which will offer free access to ITU data, and through improved dissemination and visualizations.

She finished with stressing the importance of good quality ICT data as ITU pursues its mission to connect the world. Data tells us where we were, where we are, and where we ought to be, which came across very clearly in the UN Secretary General's roadmap for digital cooperation that was released in June, and called for baselines regarding the fundamental level of digital connectivity, baselines and targets of affordability and a set of metrics to measure digital inclusion.

Policy session: How to build a truly inclusive digital society

The session moderator, **Mr. David Kirkpatrick of Techonomy** launched the panel discussion by stating the unfair reality that those who are not connected cannot participate in modern society, and that it is impossible to achieve the SDGs without making massive strides in connecting everyone. He invited the panel to address crucial questions on how to set priorities in order to extend connectivity by taking into consideration the diversity of people's needs and the kaleidoscope of humanity.

The first panellist, **Mr. Fabrizio Hochschild, United Nations Under-Secretary General** and special advisor to the Secretary-General on preparations for the commemoration of the UN 75th anniversary and also a special advisor to the SG on digital cooperation, highlighted the striking tension reported in ITU's *Facts and Figures 2020* that while almost the entire world population lives within reach of a mobile network, still almost half of the world's population remains unconnected. He pointed out that setting targets (such as the Broadband Commission's target of making connectivity affordable) and measuring progress with concrete indicators is crucial for mobilizing and targeting resources or gauging the effectiveness of policies. It is therefore important to agree on common basic standards and metrics that can be universally adopted, including on online safety to help understand what is

keeping women and children away from the Internet. Setting baselines and targets is also an essential element of the Secretary-General's Roadmap for Digital Cooperation. He concluded by pointing out that building an inclusive digital society is less of a technical challenge and more an issue of adequate planning and strategies to ensure affordability, adequate partnerships between the public and private sector (as the profit motive alone is not enough to connect the remaining 50 per cent). At the same time, it is essential to have good metrics in place to inform the development of strategies.

Ms. Sonia Jorge of the Alliance for Affordable Internet argued that digital inclusion depends on the policy and regulatory framework to spur investments and improve affordability, rather than on technical obstacles. She gave the example that the annual global spending on soda is equivalent, according to A4AI's calculations, to the investment needed for enabling universal access. She highlighted that countries with national broadband plans and proper strategies have better affordability and usage outcomes. The priority is therefore developing national broadband plans with everyone in mind, create the right incentives for the right investments.

Mr. Edwin Estrada Hernandez of Nae provided an overview of the challenges from a Central American perspective. He underlined that awareness of the need to provide universal access is an important starting point. However, it is also important to recognize that the pandemic severely affected the living conditions of the very people living under extremely vulnerable conditions, resulted in job losses and children abandoning their studies. He directed attention to the importance of providing connectivity and seizing the opportunity of using ICTs to small and medium-sized enterprises (SMEs) as they employ a large number of families but many have closed down in recent months. Mr. Estrada Hernandez argued that the availability of data with sufficient breakdowns is crucial to enable governments with limited resources to make the right choices, to design policies targeting specific vulnerable groups and to monitor their implementation. He concluded by recalling examples of how targeted funds have successfully helped provide access to rural communities in Costa Rica and countries in the region.

Ms. Amela Odobasic of the Regulatory Agency of Bosnia and Herzegovina called attention to the importance of implementing policies and strategies to provide access for all, as policymakers are often not efficient. Based on personal experience, she argued that it was key to involve all stakeholders and emphasized the role of a proactive regulatory authority and enthusiastic people. Furthermore, sharing experience and best practices at the international level, such as in the context of ITU-D Study Groups has proved particularly helpful in helping provide greater accessibility. She highlighted the importance of collecting data on disadvantaged groups, such as persons with disabilities and other specific needs, indigenous people, people in rural areas, women, youth, children, or elderly. Addressing this in future data collection needs a joint effort between ITU and its Members.

Ms. Svetlana Andries of UN Women offered insights regarding the causes and consequences of the lower access and use of mobile phones by women than men (that is 14 per cent lower on a global scale, but with regional differences can amount to 38 per cent). One obstacle mentioned is the high cost of both mobile phones and connectivity, in particular the high cost of data usage along with a lack of clear and transparent pricing. She highlighted a gender gap with respect to the nature of mobile phone use, and the fact that women use their phones to use the Internet less frequently than men. Ms. Andries pointed out that targeted measures are needed to overcome the affordability barrier, to provide safety and ensure prevention of harassment and increase digital literacy for women. Due to the COVID-19 pandemic and lockdown measures, women were often victims of mobile phone scams, and gender-based violence as exemplified by an increased use of help lines. She echoed the need for joined public and private efforts, suggesting that mobile services could be introduced that focus on the specific needs of women. She concluded by emphasizing the need for disaggregated data as lack of full availability creates unconscious biases.

Launch of “Measuring digital development: Facts and figures 2020”

Ms. Monica Albertini of ITU moderated this session.

Mr. Martin Schaaper of ITU made a presentation on *Measuring digital development: Facts and figures 2020*, highlighting how challenging it was to compile the data on digital readiness and resilience that offer a new perspective on the impact and the importance of connectivity to every nation's economy in these extraordinary times.

He highlighted that for the first time this new addition of facts and figures contains statistics on Small Island Developing States and Landlocked Developing Countries in addition to data on the 47 Least Developed Countries, and that the best way to explore Facts and figures is through the [interactive report](#).

He presented that, while just over half the population overall is using the Internet, among young people age 15 to 24 this figure rises to almost 70 per cent. He noted that globally, about 72 per cent of households in urban areas had access to the Internet at home in 2019, almost twice as much as in rural areas (nearly 38 per cent). He also revealed that overall, 55 per cent of men have access to the Internet, compared with 48 per cent of women. And the gap is widespread; in more than 70 countries around the world more men are using the Internet than women. In addition, he emphasized the chronic rural connectivity gap. Large parts of the rural landscape are still not covered by mobile broadband, and fewer households in these areas have Internet access.

He informed that many more results can be found online, such as data on international bandwidth usage, ICT skills, mobile phone ownership, affordability, as well as anecdotal country evidence on the impact of COVID-19 and methodological notes at the facts and figures [home page](#). During the discussions that followed, participants welcomed the report.

Measuring digital inclusion

Ms. Nagwa ElShenawy of the Ministry of Communication and Information Technology of Egypt moderated this session.

Ms. Alison Gillwald of Research ICT Africa started with noting that as more people are connected, digital inequality increases rather than decreases. This is not only the case between those online and those offline but also between those who have the technical and financial resources to use the Internet optimally – actively consume, reduce transaction costs, produce – and those barely online, consuming miniscule amounts of data for passive consumption. She then stated that there are still insufficient data to monitor these inequalities properly and to report on the SDGs. She continued by showing data for LDCs from various sources, including After Access surveys. She concluded by highlighting the need to mobilise global resources to realise global public goods, such as public statistics and data, at the national level.

Mr. Simon Kemp, CEO of Kepios and chief analyst at DataReportal, posited that social media offer real-time insights into what people are doing online in every country in the world, with more than half of all the people on earth now using social media. The social media user numbers have been growing quickly over recent months. While younger people account for the largest share of the world's social media users, seniors represent today's fastest-growing Facebook and Instagram audience. COVID 'lockdowns' may have contributed to these increases amongst older users. Furthermore, global social media users are currently 18 per cent more likely to be male than female, but once they start using

social media, women tend to be more active than men. Social media data also point to an urban-rural divide especially in developing economies.

Mr. Suguru Mizunoya and Mr. Garen Avanesian of UNICEF presented the joint UNICEF-ITU report *How Many Children and Young People Have Internet Access at Home?* Using data from MICS, DHS and national household surveys, the report shows that globally, only one-third of school-age children have a solid Internet connection at home, with the lowest connectivity rates observed in Sub-Saharan Africa and South Asia. The report also identified an urban-rural gap, with only 25 per cent of rural children and youth in the age group 25 years or younger having access to the Internet globally, compared with 43 per cent of those living in urban areas. There are also disparities between the poorest and the richest households within countries. They concluded that low digital connectivity undermines the potential for children and young people to succeed in school, work and life and gain the necessary skills and knowledge needed to succeed in an increasingly digital world and that efforts should be made to significantly expand Internet access in homes, communities and schools.

Wednesday 2 December 2020

Informal brainstorming session: Visualising ICT data for policy making

Mr. Thierry Geiger of ITU coordinated a virtual brainstorming session as ITU is rethinking its approach to data dissemination – aiming at making more data available on the website (currently only about 5 per cent of the data collected by the ITU is made available) and improving user experience with accessing ICT data. With the help of polls and a mural board, WTIS participants had the opportunity to share needs and preferences and interact with the ICT data and analytics team.

Thierry Geiger outlined the ITU's vision of creating a new go-to platform hosting all ICT-related information that offers a wider range of data, tools that is more appealing, intuitive and also mobile-responsive, for a large and diverse user community. This in turn should help better inform policies and decisions to end all forms of digital poverty. Mr. Geiger reminded participants of the current state of the art of the ICT Eye website, its features for data queries and visualization, and proposed a set of potential features and building blocks of a new data portal – in terms of the nature of data, content as well as tools and functions.

The proposal met the enthusiasm of participants. To highlight some of the suggestions and feedback, users expressed equal interest in disaggregated data when available, in customizable dashboards and country-level analyses, and in having fully customizable search and download functions. Others emphasized the need to share historical values and metadata as well as the possible availability of the platform in multiple languages. There were also suggestions to create a data user community. The comments and suggestions will be taken into consideration to the extent possible by the ITU team in the development of the new data portal.

Report of the Expert Group on Telecommunication/ICT Indicators (EGTI)

This session was moderated by **Mr. Bernard Banda of the Zambia Information and Communications Technology Authority**.

In his presentation, **Mr. João Noronha, Chair of the Expert Group on Telecommunication/ICT Indicators (EGTI) and Head of Statistics and Market Research of Portugal's Autoridade Nacional de Comunicações**, reminded the mandate of the EGTI before presenting the outcomes of its 11th annual meeting that took place on 15-16 September 2020. *Inter alia*, the Expert Group:

- accepted the proposed improvements to the methodology of five ICT price indicators. ITU will collect data in 2021 using the new methodology;
- proposed to test several pilot indicators related to the quality of services in test questionnaires in 2021;
- adopted a new indicator on 5G mobile network coverage, which will be included in the 2021 edition of the World Telecommunication/ICT Indicators Long Questionnaire (WTI LQ 2021), and agreed to work on refining the definition of the indicator on 5G subscriptions;
- agreed to include five indicators related to international roaming in the WTI LQ 2021.

Mr. Noronha then presented the work programme of EGTI for the 2020-21 exercise. The sub-group on 5G will continue its work, while two new sub-groups will work on developing methodologies to measure mobile money and over-the-top media services (OTT), respectively. Topics to be discussed in EGTI's online forum include zero rate and promoted Internet access, the impact of COVID-19, free roaming areas, and proposals by ITU's Study Groups 1 and 2.

In his presentation, Mr. Noronha also mentioned that the 2020 edition of ITU's Handbook for the Collection of Administrative Data on Telecommunications/ICT had been released and presented at the EGTI meeting. He announced that online training courses based on the Handbook will be available in the ITU Academy in 2021. He encouraged administrations to use the Handbook when collecting the telecom/ICT indicators to ensure international comparability of the data.

Ms. Maipelo Mahalelo of the Botswana Communications Regulatory Authority (BOCRA) made a presentation on mobile money data collection in Botswana. There is an agreement in place that BOCRA will collect data from the regulated entities then share it with the Bank of Botswana. Data collected include the number of registered and active mobile money accounts, the number of registered and active agent outlets, the number and value of mobile money transactions, and outstanding balances on active mobile money accounts. The active discussion that ensued was followed by an invitation for those interested in contributing to methodological work on this topic to join the new EGTI subgroup.

Country experience

This country experience session was moderated by **Mr. João Noronha** and featured a presentation by **Mr Yeong Ro Lee, Vice President Department of ICT Infrastructure and Platform, National Information Society Agency (NIA), Korea (Rep. of)** on the topic of measuring the deployment of 5G networks. He explained the background, methods and procedure of evaluating the quality of the deployed 5G networks in Korea.

Mr. Lee explained that as the first step, target services were selected while focusing on measuring the real quality and speed that a user would experience, rather than the theoretical capacity. A working group consisting of independent stakeholders was created to establish the methodology of measurement. Once the methodology was in place, the field measurement was conducted in both urban and rural areas. Finally, the data was gathered and analysed. Mr. Lee then presented the results of this measurement exercise, showing that the average 5G download speed in Korea was 656.56 Mbps in the first half of 2020, compared to and 158.53 Mbps average 4G (LTE) download speed in 2019.

The session further highlighted recent efforts by Korea (Rep. of) to develop indicators to measure the deployment of 5G networks which could prove very useful for countries around the world that are in the process of preparation and deployment of IMT 2020 5G networks.

Measurement approaches using Big Data

Ms. Esperanza Magpantay, Senior Statistician of the ITU moderated the session. In her introduction, she highlighted the important role of the ITU in international discussions related to the use of mobile phone data for official statistics. ITU is currently leading the UN Global Working Group Task Team on mobile phone big data, and one of its six sub-groups on information society statistics. The task team currently consist of more than 50 members representing countries, regional and international organizations and discusses issues related to the use of mobile phone data as a new data source to calculate statistics on migration, tourism, transport, dynamic population, displacement in a disaster context, and information society indicators. The sub-groups that work on these six topics will produce handbooks and training materials containing methodologies and standards that can be used by countries in future big data projects.

Mr. Sriganesh Lokanathan, Data Innovation and Policy Lead of UN Global Pulse Jakarta Lab presented their experience in using mobile phone big data in humanitarian and disaster contexts in countries such as Indonesia, Samoa, and Vanuatu to understand population movements during cyclones and earthquakes, particularly how to understand human mobility and potential warnings. The analyses provide useful information on how the population reacts in actual disasters as to the kind of displacements that are necessary and where scarce resources could be efficiently used. Another use case that he presented is the use of mobile phone data to understand consumption patterns to estimate the socioeconomic activity and derive measures of poverty. He highlighted the importance of using the correct privacy techniques in ensuring that the data from mobile operators are anonymized. He emphasized that flexibility is important in choosing the right data access methods and having the right agreements with mobile operators. In all these use cases, he highlighted the need for performing quality assurance checks when working with mobile phone big data. He concluded by highlighting the importance of having a coherent and conducive policy regulatory environment that includes data protection laws and relevant policies that will enable the sustainable analysis of mobile phone big data in countries.

Mr. Ronald Jansen, Assistant Director of the United Nations Statistics Division (UNSD) presented the paper on the Principles in Maintaining Trust in the Use of Mobile Phone Data for Official Policy Purposes. The paper, to be published soon in the Cambridge Journal of Data and Policy, was prepared by selected members of the Task Team on mobile phone data (UNSD, Positium, GSMA, University of Tokyo, Statistics Estonia, Flowminder and ITU). The paper discusses principles related to necessity, protection of privacy, professional independence, quality and international comparability. The principle of necessity refers to the justification for using mobile phone data over other data sources,

such as a survey. The principle of protection of privacy looks at whether privacy and confidentiality is guaranteed through the use of techniques. This is in line with the Fundamental Principles for Official Statistics which emphasize that data should be used strictly for statistical purposes and not for any other purpose. The principle of professional independence outlines that the use of mobile phone data should be impartial and should be done strictly from a professional point of view and not from any kind of interest from outside in producing results. The principle of quality is a commitment to ensuring data quality where results can be used by governments to assess and monitor their implementation of restrictions and policies. And finally, the principle of international comparability aims to ensure that results can be compared between countries based on internationally agreed methods and standards. The presentation further highlighted use cases where the principles were applied when analysing mobile phone data, including in Estonia, Gambia, and Ghana in the context of human mobility and COVID-19.

Erki Saluveer, CEO of Positium and consultant to the ITU presented the ITU Handbook on Mobile Phone Big data for the Information Society. The Handbook includes information and methodologies necessary to calculate three ICT SDG indicators (percentage of the population covered by a mobile signal by technology, percentage of population who owns a mobile phone and percentage of population using the Internet). He highlighted that aside from mobile phone data, it is important to have access to quality administrative data that provide the local administrative unit and the population on those units. Quality checks and comparison of results with the reference and survey data in the two use cases (Brazil and Indonesia) are also included in the Handbook. The Handbook will cover information on data access, the national stakeholders, data protection and ethics, quality assessment, and the calculation details of the three SDG indicators. Challenges and experiences from the use cases will be included in the Handbook to help countries who may want to calculate the SDG indicators based on mobile phone data. The Handbook will be used in the preparation of training materials and online courses to be made available in mid-2021.

Ms. Titi Kanti Lestari, Director of Finance, Information Technology and Tourism Statistics of BPS-Statistics Indonesia presented the use case in Indonesia in the use of mobile phone data from one of the mobile operators in the country. The project is currently being implemented in collaboration with ITU and Positium. She provided a background why they decided to explore the use of big data to calculate some of the SDG indicators, including the lack of granularity of household survey data and timeliness of the information. She highlighted some of the benefits of using mobile phone data, including increased coverage, timeliness, and less use of resources compared to household survey data. BPS is using the methods and guidelines that are included in the Handbook on Big Data for Information Society Indicators that is currently being prepared. The results of the project will be compared with the results of the last ICT household survey in the country. The experiences from the use case will be included as examples in the ITU Handbook.

Ms. Maria do Carmo Dias Bueno, Coordinator of Special Projects of the Brazilian Institute of Geography and Statistics (IBGE) presented the use case in Brazil using mobile phone data from one of the mobile operators in Rio de Janeiro metropolitan area. The project is currently being implemented in collaboration with CETIC, Brazil, Positium and ITU. In her presentation, she highlighted the importance of a mechanism to ensure data access and engagement of the mobile operators and privacy preserving techniques to ensure confidentiality of the information. She also provided an overview of the calculation of the indicators that is currently ongoing in IBGE, using the methodologies outlined in the ITU Handbook. She mentioned that the results are expected to be released in two months, and that there is a plan to replicate the experience gained in other areas of statistics in IBGE, such as on population movement during disasters.

The discussions that followed highlighted the importance of national coordination in ensuring that all stakeholders are involved, as well as in preserving privacy of individual information. Mobile phone big data can provide potential for national statistics offices to generate important official statistics necessary for SDG monitoring and indicators for national policy making. The Handbook and the Principles should be used by countries as guidelines to ensure international comparability of data coming from mobile phone big data.

Thursday 3 December 2020

Partnership on Measuring ICT for Development session: A thematic list of ICT indicators for the SDGs

Mr. Alexandre Barbosa, Head CETIC.br of Brazil moderated the session.

Mr. Deniz Susar, Governance and Public Administration Officer of UN Department of Economic and Social Affairs (UNDESA) introduced the Partnership, its most recent work on the list of thematic ICT indicators that could be used to measure ICT availability and use in sectors relevant to the SDGs that are not covered in the global SDG indicators framework. He mentioned that the list was presented during the WSIS Forum 2020 and at the 51st Session of the Statistical Commission that was held in March 2020. He highlighted that the Partnership plans to compile the methodologies for the ICT indicators included in the thematic list and have a common repository of data for those indicators. He encouraged National Statistical Offices (NSOs), telecommunication regulators, education ministries to continue or resume data collection to increase data availability for the ICT indicators.

Ms. Scarlett Fondeur Gil, Economic Affairs Officer, ICT Analysis Section of UNCTAD emphasized the importance of improving data availability for the thematic list of indicators. She recalled that the thematic list was formulated with the objective of expanding the visibility of the role of ICT in advancing the SDGs. The Partnership made a very conscious effort to put in the thematic list only indicators that have a methodological background and that countries have already collected and can share experience on. However, she said the data availability for some of those ICT indicators is still dire and there is a need to use new data sources to help complement the missing data. She emphasized the need to raise awareness on the importance of collecting the data for these indicators. The use of new data sources to help measure the contribution of ICTs to the achievement of the SDGs should also be considered by countries. She further highlighted the importance of continuing capacity building activities and preparing materials that could explain the advantages and disadvantages of the use of new methods, cost implications and data privacy considerations that are inherent with new sources of data. Finally, she concluded that coordination at the national level is particularly important to ensure that all sector ministries are aware of the thematic list of ICT for SDGs so that they can collaborate to track the indicators and start considering how to best use alternative data sources.

Mr. Alejandro Patino, ICT specialist of UNECLAC presented the main challenges that the COVID-19 pandemic had presented to data collection in ECLAC member countries and what UNECLAC has done to guarantee the quality of statistics derived from a new data collection methodology that is adapted to the current situation. Most of the NSOs, as well as ministries rely on Internet and phone data collection methods which are different from the traditional face-to-face methods. The new methods include using a sample instead of predictive models, setting up a monitoring panel to conduct telephone surveys, and to publish the data at the aggregate or national level. He provided examples

of statistics and experiences related to the increase in online presence of business and firms during the pandemic. He also presented some of the innovations in producing the data in UNECLAC as well as the challenges related to the use of new data sources. He named a few, including the difficulty to obtain control over the data which is easier when using official statistics. Other issues that he highlighted included statistical representativeness, clarity in the research questions, achieving quality results, and lack of continuity and sustainability in the data collected online. He concluded that more practical use cases are needed as well as methodological tools to replicate the experience in many countries.

ICT statistics in the time of COVID-19

Mr. Alexandre Barbosa, Head of CETIC.br, Brazil moderated this session.

Mr. Winston Oyadomari, Senior Survey Analyst at CETIC.br, Brazil introduced their experience of producing ICT statistics during the pandemic. Mr. Oyadomari mentioned that among others, their annual households, kids online, and education face-to-face surveys had to be adjusted to a computer assisted telephone interviewing (CATI) data collection method with reduced scope, while their annual health survey was adjourned because during the current situation, it was difficult to properly contact health facilities and health practitioners. Since the household survey and kids online survey had to be reduced, lots of information on how people use the Internet during the pandemic would have been lost. Therefore, Cetic.br decided to run three different editions of an ICT COVID-19 web panel survey. The first edition focused on general activities, cultural activities and e-commerce. The second edition included e-government, e-health and privacy, while the third edition focused on remote education and remote work. These reports provided valuable insights on how people are using ICTs during the pandemic in Brazil.

Mr. Silvio de Nicola, Officer at the Communication Authority (AGCOM), Italy presented the Italian perspective on the relationship between COVID-19 and ICTs. Mr. de Nicola explained that COVID-19 had an impact on the ICT economy with an estimated loss of 5 billion Euro in total revenues in telecommunication, media and postal markets. Fixed-broadband and mobile-broadband traffic have increased during the lockdown, with the pressure more visible on the fixed-broadband network. However, based on the data, this did not cause a major decrease in speed or quality. The data collection process was only slightly affected by the pandemic scenario, as most of the activities were already digitized. However, some problems were reported by minor operators. Mr. de Nicola explained that ICTs can also help to mitigate the impacts of COVID-19 and he illustrated this by introducing *Immuni*, a contact tracing app developed by the Italian government. AGCOM also encouraged collaboration among stakeholders and sharing of proposals for resolving critical issues to ensure continuity of various services. A data science task force on online disinformation was also established and AGCOM's research partners have offered to support pro bono the Regulator in the production of quantitative analysis and monitoring data.

Report of the Expert Group on Household Indicators (EGH)

Mr. Mark Uhrbach, Statistics Canada moderated this session, concerning matters relating to the Expert Group on Household indicators (EGH).

Ms. Doreen Bogdan-Martin, BDT Director paid respects to the former chair of the EGH, Mr. Candido Astrologo of the Philippine Statistics Authority, recognising his important contribution to this expert group.

In accordance with the procedures for appointing a new EGH chair (nomination at WTIS, and approval by the BDT director), Ms. Bogdan-Martin recommended the appointment of **Mr. Juan Daniel Oviedo, Chief Statistician of Colombia**, to take over the Chairmanship of the EGH. Mr. Oviedo was confirmed as the new EGH chair.

Mr. Juan Daniel Oviedo then made a presentation regarding the outcomes of the 8th EGH meeting (September 2020). Following questions from participants, the report of the 8th EGH was adopted by WTIS. This included the creation of EGH subgroups to conduct methodological work in relation to the measurement of electronic waste, Child Online Protection, and mobile money.

There then followed two presentations on the topic of measuring electronic waste, one by **Ms. Jadwiga Tudek, Eurostat**, followed by **Ms. Vanessa Forti, UNUVie – SCYCLE, United Nations University**. These presentations highlighted the urgent need to improve the measurement of electronic waste using household surveys, for example to be able to better understand how people dispose of electronic items they possess. The active discussion that ensued was followed by an invitation for those interested in contributing to methodological work on this topic to join the new EGH subgroup.

Country experience

This country experience session was **Mr. Mark Uhrbach, Statistics Canada**, and featured a presentation by **Ms. Carla Valverde of the Ministry of Science, Technology and Telecommunications, Costa Rica** regarding the topic of child online protection. She presented the results of a survey of children and young people in Costa Rica in relation to their access to ICTs and their online behaviour, which revealed that quite significant numbers of children had had experiences online that could be potentially risky or harmful.

This motivates the pressing need for more survey data to be collected on this issue to inform policymaking in relation to child online protection, and to have common standards for survey questions to facilitate international comparison. As these issues will be addressed by the new EGH subgroup on this topic, those interested in contributing to methodological work to improve such statistics are welcome to volunteer to join this work.

Closing ceremony

Ms. Eun-Ju Kim, Chief of the Digital Knowledge Hub Department of the ITU moderated the session.

Ms. Doreen Bogdan-Martin, Director, Telecommunication Development Bureau, ITU, thanked the speakers, panelists and moderators for sharing their insights and the Chair of this 17th edition, Mr. Anshu Prakash. She remarked that the conference had covered all of the steps of the data life cycle from setting standards for collection, to actual collection, to dissemination and use for policy making, which she followed up with a short overview of the topics covered during the Symposium. Looking forward, she noted that 2021 will be a very special and eventful year, with the ITU development conference taking place in November. She concluded by thanking the organising team, the interpreters and the captioners, and the audience.

Mr. Anshu Prakash, Secretary, Department of Telecommunications, Government of India, stated that it had been a privilege and an honour to chair the 17th Virtual ITU World Telecommunication/ICT Indicators Symposium, and that he was impressed by the richness of, debates and discussions. The theme of the symposium, “Towards an inclusive digital society”, was very timely and extremely

relevant. Certain groups are more disadvantaged than other, such as people in rural areas, low-income groups, marginalized communities, physically challenged persons. To connect the unconnected, policy makers need to act, which will require data to take informed decisions and arrive at appropriate policy interventions.

He congratulated all the participants who actively contributed to the Symposium, the Chairs of the Expert Group on Telecommunication/ ICT Indicators and the Expert Group On Households and the ITU team for releasing "Measuring Digital Development: Fact and Figures 2020", before closing the Symposium.