THE PRESIDENT
OF THE
GENERAL ASSEMBLY

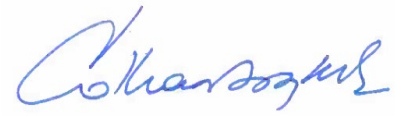
12 July 2021

Excellency,

I have the honour to share herewith the summary of the High-Level Thematic Debate on Digital Cooperation and Connectivity, convened under the theme "Whole-of-Society Responses to End the Digital Divide" on Tuesday, 27 April 2021, with a spill-over segment on Monday 24 May 2021.

The summary highlights key messages and discussions from Member States, the United Nations system and other stakeholders. I sincerely hope the summary will benefit our joint efforts in leveraging digital transformations to support COVID-19 adaptation and recovery policies, and to accelerate the achievement of the Sustainable Development Goals (SDGs).

Please accept, Excellency, the assurances of my highest consideration.



Volkan BOZKIR

All Permanent Representatives
and Permanent Observers to the United Nations
New York

High-Level Thematic Debate
on Digital Cooperation and Connectivity:
Whole-of-Society Responses to End the Digital Divide
27 April and 24 May 2021

Summary of the President of the General Assembly

United Nations
Office of the Secretary-General's Envoy on Technology

ITU

UN environment programme

UNITED NATIONS UNCTAD

INTRODUCTION

On Tuesday, 27 April 2021, the President of the General Assembly (the PGA) H.E. Mr. Volkan BOZKIR convened the High-level Thematic Debate on "Digital Cooperation and Connectivity: Whole-of-Society Approaches to End the Digital Divide" in the General Assembly Hall, United Nations Headquarters. A spillover segment for the remaining statements in the high-level plenary was convened on 24 May 2021. The High-level Thematic Debate was convened by the PGA in response to calls from Member States to spotlight digital cooperation and connectivity in the context of the COVID-19 era, pursuant to General Assembly Resolution 72/313 of 17 September 2018, entitled "Revitalization of the work of the General Assembly"[1].

The Debate highlighted the urgency to address the digital divide in support of COVID-19 adaptation, response and recovery efforts, in alignment with the Sustainable Development Goals. It also aimed to strengthen multi-stakeholder initiatives and partnerships, and support the creation of additional partnerships to accelerate implementation efforts.

The Thematic Debate[2] (programme[3]) consisted of an opening segment which featured a presentation by the UN Regional Economic and Social Commissions on Digital Cooperation and Connectivity; three panels on "Ending the Digital Divide by 2030: COVID-19 Recoveries To Accelerate the Decade of Action"; "Equitable Access and Digital Empowerment: Securing a Safe, Inclusive, Free and Open Digital Future For All"; and "Greening The Digital Future: Local, Regional and Multilateral Partnership"; a high-level plenary, and a closing segment.

In preparation for the High-Level Thematic Debate , and in support of more inclusive global deliberations and action on digital issues, the PGA circulated an Information Note[4] outlining key action areas and multi-stakeholder partnerships and initiatives, including recommendations from the UN Secretary-General's Roadmap for Digital Cooperation[5], to support impactful and results-oriented discussions. Furthermore, the PGA circulated an update on the Roadmap's implementation[6] prepared by the Office of the Envoy on Technology.[7]

KEY MESSAGES

- COVID-19 has caused the deepest global recession in eight decades. 87% of people in developed countries are digitally connected, compared to only 19% in the least developed countries. The 3.6 billion people – roughly half the global population - who remain digitally disconnected do not have the option to work remotely or learn and a trade online.
- COVID-19 adaptations have accelerated digitalization, remote work and education, e-commerce and the virtual delivery of essential services, allowing the digitally connected to thrive while severely exacerbating the inequalities faced by the digitally disconnected.

[1] The Assembly 'recognizes the value of holding interactive inclusive thematic debates on current issues of critical importance to the international community, and calls upon the President of the General Assembly to organize such debates in close consultation with the General Committee and Member States'.
[2] https://www.un.org/pga/75/digital-cooperation-and-connectivity/
[3] https://www.un.org/pga/75/wp-content/uploads/sites/100/2021/04/PGA-Digital-Debate-Final-Programme.pdf
[4] https://www.un.org/pga/75/wp-content/uploads/sites/100/2021/04/PGA-letter-to-MS-Thematic-Debate-on-Digital-Cooperation-and-Connectivity.pdf
[5] https://www.un.org/en/content/digital-cooperation-roadmap/
[6] https://www.un.org/techenvoy/sites/www.un.org.techenvoy/files/Update_on_Roadmap_implementation_April_2021.pdf
[7] https://www.un.org/techenvoy/

- The digital divide is the new face of inequality in the COVID-19 era. It is particularly pronounced along rural-urban, language and gender lines, and in Least Developed Countries (LDCs), Landlocked Developing Countries (LLDCs), and Small Island Developing States (SIDS). The poorest and the most vulnerable in developed and developing countries alike, who are the hardest hit by this crisis, are also the farthest behind in terms of access to digital technologies. Leaving no one behind means leaving no one offline. Societies need tools to adapt and thrive to contend with these structural changes now.
- Urgent action must be taken to end the digital divide by 2030, to accelerate the implementation of the entire 2030 Agenda. The International Telecommunication Union's Connecting Humanity report estimates that US$ 428 billion is required to connect 90% of the remaining 3 billion people aged ten years and above to broadband internet by 2030, with US$ 100 billion for Africa alone. Access to affordable digital services in the COVID-19 context is not a luxury but a necessity, especially given that broadband and cloud services underpin the 21st century's infrastructure.
- Ending the divide will require whole-of-society cooperation, and multi-stakeholder and multi-sectoral engagement, including to overcome the 'energy divide' to power digital technologies for the nearly 800 million people without electricity; creating enabling regulatory environments and innovative financing models for investments into affordable connectivity and digital devices and applications; upscaling digital skilling and education; and empowering people everywhere through community networks and local content.
- The negative consequences of digitalization including disinformation, misinformation, cybercrime, the spread of violent extremism and terrorism, and online abuse and harassment – particularly targeting women and children – must all be addressed while simultaneously working to end the global digital divide. This will require greater engagement of all countries in global digital governance.
- The digital economy is highly geographically concentrated. Approximately 70% of international telecommunications technology infrastructure is owned by the private sector. Upscaled cooperation for capacity building is needed to allow all countries to benefit from digitalization and e-trade.
- Digital cooperation and connectivity are critical for global green recoveries from the COVID-19 pandemic, particularly through more environmental data and observation systems. Environmentally friendly digitalization, in line with the SDGs, must be integral to every national recovery plan. 230 million digital jobs could be created in sub-Saharan Africa by 2030, but that would require overcoming challenges relating to infrastructure, training and skilling, and capacity building.
- Digital technology can help mitigate climate change and prevent disasters – but if the digital divide persists it will further impair citizens' resilience to climate change's impacts. Digital infrastructure must become as environmentally efficient as possible. Global digital energy consumption, including for data centers, and global e-waste, must be addressed, alongside all negative environmental impacts at every point along the digital supply chain.
- Equitable access to digitally-based emerging technologies, such as Artificial Intelligence (AI), 5G, the Internet of Things (IoT), Quantum Computing, Robotics, and Biotech will allow the international community to reap the benefits of digitalization and adapt to the future of work. The continuation of the digital divide, without broad access to such technologies, risks exacerbating fractures, leading to economic disruption that will have consequences for multilateralism.

OPENING SEGMENT

H.E. Mr. Volkan BOZKIR, President of the 75th Session of the General Assembly[8]: The High-level Dialogue was convened in response to Member States' requests to prioritize digital issues and build political momentum to rapidly empower people everywhere. Recovery from COVID-19 is an inflection point that offers a chance to undertake transformational changes which are particularly important for the world's 1.8 billion young people, who must be equipped with the skills and resources to thrive in an ever-changing, tech-driven future. The UN General Assembly has played a leading role in placing science, technology and innovation at the heart of the sustainable agenda, forging partnerships across stakeholders, as it has done in the past to create implementation mechanisms like the Technology Facilitation Mechanism, and the UN Technology Bank for LDCs. The General Assembly is called to consider strengthening the implementation of global, regional, and multilateral initiatives, including the Secretary-General's Roadmap for Digital Cooperation. Synergies must be built across the UN system to achieve digitalization's transformative potential for the 2030 Agenda, including efforts to address biodiversity, climate and pollution via the Coalition for Sustainable Digitalization (CODES Initiative).[9] He noted that in the lead up to the High-level Dialogue on Energy to be convened in the General Assembly in September 2021, both the energy and digital divides must be addressed simultaneously to sustainably connect the almost 800 million people who lack electricity.[10]

H.E. Mr. Munir Akram, President of the Economic and Social Council[11]: International cooperation will be essential to optimize the opportunities offered by digitalization and associated emerging technologies, such as higher productivity in all sectors including agriculture, manufacturing, services, finance, trade, communications, and greater access to knowledge and information. The fastest growth in employment is now in work related to the ICT sector and expanding digitalization. Specific actions must be elaborated to implement the Secretary-General's Roadmap for Digital Cooperation. Bridging the digital divide will require investments in digital software and hardware, infrastructure for broadband internet and the last mile solutions required for universal connectivity, and digital literacy. Only providing people with devices and connectivity will not suffice, because these tools alone won't enable them to access education, commerce or production opportunities. He underscored the critical role of the private sector, given that 70% of global ICT infrastructure ownership is concentrated in a handful of private companies. These companies' policies on tax, profit-shifting and transfer pricing, free and fair competition, the propagation of hate, violence, and terrorism, privacy and security, and on responsible management of data have global consequences. Through the scale and scope of their services and policies, private sector partnerships can promote safe and productive digitalization, including emerging technologies. The United Nations and its functional agencies and bodies possess the legitimacy and convening power to promote inclusive deliberations on international cooperation and governance of the digital space. He noted that competition to harness technology today should not become the face of tomorrow's trade wars which threaten to erode the promise for accelerated global growth and transformations to realize a sustainable, green, and equal world.

[8] https://www.un.org/pga/75/2021/04/27/high-level-thematic-debate-on-digital-cooperation-and-connectivity-4/
[9] https://www.sparkblue.org/DigitalPlanet
[10] https://www.un.org/en/conferences/energy2021
[11] https://www.un.org/ecosoc/sites/www.un.org.ecosoc/files/files/en/president/2021/statement-ecosoc-president-27-april-2021.pdf

Ms. Amina Mohammed, Deputy Secretary-General of the United Nations[12]: Digital technologies – from artificial intelligence to blockchain – have truly transformative potential. The United Nations has a key role to play in responding to the growing fragmentation in the digital space. Geopolitical fault lines between major powers are emerging, with technology as a leading area of tension and disagreement. This is made worse by the deepening digital divide between developed and developing countries, which means that global discussions on digital issues are often less inclusive and representative of the concerns and priorities of the global South. Ensuring a legal identity for all through digital birth registration can help address global inequalities in access to digital services. No single country or company, by itself, should steer the course of the digital future. The private sector is increasingly looking for guidance at the global level on issues like online incitement to violence, or the use of private data, primarily minimum criteria or basic norms of behaviour. This reaffirms the value of engaging with all stakeholders and convening multi-stakeholder partnerships. Collective action is the basis of the Secretary-General's Roadmap for Digital Cooperation. Good progress has been made in its implementation but of course far more is needed. The establishment of the Office of the Technology Envoy has been an important step forward.

H.M. Queen Máxima of the Netherlands, United Nations Secretary-General's Special Advocate for Inclusive Finance for Development[13]: COVID-19 has caused the deepest global recession in eight decades, with an estimated 150 million people globally pushed into extreme poverty by the end of 2020, including marginalized groups with limited or no access to the digital economy prior to the pandemic. Workers and businesses in the informal sector suffered significantly due to little or no coverage by social insurance or relevant government assistance programmes. Queen Máxima reflected on the importance of digital financial services during the pandemic, which were critical to support crisis response and to help people explore new opportunities. More than 200 nations expanded social protection measures since the start of COVID-19 — many using digital payments providers to make transfers directly into bank accounts or mobile wallets. Digital public goods are needed to create a resilient, equitable, and trusted financial system. They are key prerequisites to enable access, connectivity, data privacy, cybersecurity, consumer protection, and digital and financial literacy. Designing and implementing digital public goods in a gender-inclusive manner is needed to address gender gaps in access to mobile phones and internet when rolling out solutions and investments in infrastructure.

Ms. Manjeet Kripalani, Executive Director of Gateway House: Indian Council on Global Relations[14]: Digitalization can power the developing world out of an economic crisis, especially through digitally empowering micro, small and medium enterprises (MSMEs). She underscored the fundamental difference in digitalization between developed and developing countries. The developed world's issues relate to 'usage', i.e. consumer privacy, security, data protection, and productivity. The developing world's needs revolve around "*access*" – digital availability, affordability and usage of infrastructure.; and "hard" and "soft" infrastructure gap.[15]

[12] https://www.un.org/sg/en/content/dsg/statement/2021-04-27/deputy-secretary-generals-remarks-high-level-thematic-debate-digital-cooperation-and-connectivity-delivered

[13] https://www.unsgsa.org/speeches/unsgsa-queen-maxima-video-remarks-digital-public-goods-and-digital-divide

[14] https://www.gatewayhouse.in/making-digitalization-a-public-good/

[15] "Hard" includes devices, electricity, telecom, servers, data centers, while "soft" gaps include digital platforms, content, and legal and policy measures across value-chains.

A universalist approach is necessary to reconcile these worlds, including by making digitalization a 'public good' – available, affordable, accessible, auditable, scalable, with privacy embedded in its design, as called for in the Roadmap for Digital Cooperation. In this regard, numerous developing countries are working with the Modular Open-Source Identity Platform (MOSIP)[16], a not-for-profit foundation offering open-source code endorsed by the UN High Level Panel for Digital Cooperation June 2019 report.[17] Digital public goods will be critical to transition people back to work, especially to revive MSMEs. Developing countries are plagued by low digitalization and poor access to low-cost and easily available credit. In the absence of data, democratizing access to credit will be essential. In addition, massive digitalization requires mountains of silicon chips, magnets and batteries, which need rare earths and lithium, all difficult to mine. Given that digitalization impacts global energy consumption, and that chip production is water-intensive and chemically-polluting, there is a demand for smart, non-polluting chip innovation.

Global Assessment of Digital Cooperation and Connectivity by the United Nations Regional Commissions[18]

The Thematic Debate benefited from a special feature on the regional platforms and tools promoted by the UN Regional Commissions in support of digital cooperation for policymakers to share common challenges and policy responses to mitigate COVID-19's impacts, ensure service continuity and accelerate socio-economic recoveries. The following regional initiatives were highlighted as best practices:

- The 16-year Digital agenda for Latin America and the Caribbean (eLAC2022), a platform to promote policy design, dialogue and training to policymakers on digital technologies (Economic Commission for Latin America and The Caribbean – ECLAC)
- The platform for Directors of e-Government to support digitizing and scaling-up 1 million MSMEs in the Arab region (The Economic and Social Commission of West Asia (ESCWA) .
- The Asia-Pacific Information Superhighway initiative to promote digital connectivity and digital data use (The Economic and Social Commission of The Asian Pacific – ESCAP).
- The African Medical Supplies Procurement Platform to alleviate supply and logistical constraints by ensuring access to the Pandemic Portfolio Medicines to African and CARICOM Governments (The Economic Commission for Africa – ECA).
- The digitalization of business processes, such as e-commerce, trade facilitation, border-crossing, procurement, traceability and e-government for countries to progress towards smart connectivity and the digital empowerment of citizens (The Economic Commission of Europe – UNECE).

Panel 1: Ending the Digital Divide by 2030: COVID-19 Recoveries to Accelerate the Decade of Action

The first Panel and Multi-stakeholder Spotlight focused on the short-, medium- and long-term goals and actions needed to mitigate capacity gaps for digital connectivity, and the promotion of

[16] https://www.mosip.io/
[17] https://ccdcoe.org/uploads/2019/08/UN-190610-High-level-Panel-Report.pdf
[18] https://mailchi.mp/be69334dbe1d/regional-commissions-update-no21-1-may-2021?e=911ffcd1c4

more effective intersectoral linkages, at national and international levels, to achieve whole-of-society approaches to end the digital divide.

Urgent Action to Mitigate Capacity Gaps

Participants emphasized that access to affordable digital services in the COVID-19 context is not a luxury but a necessity, especially given that broadband and cloud services underpin the infrastructure of the 21st century. In the short-term, baseline data on digital access and usage must be established, as called for within the Secretary General's Roadmap, to assess where action is most needed, particularly in rural and underserved areas which are often undercounted or overlooked. They also called for evaluating the policy changes needed to create enabling regulatory environments and to promote collaborative models such as community networks. This included exploring new technologies like "TV Whitespaces", and introducing mobile money and banking to spur economic growth for MSMEs.

In the medium-term, participants stressed the need to mainstream digital connectivity within all policy decision making processes. They also called for sustained mobilization to generate the financing required to achieve universal connectivity by 2030, and to develop the institutional flexibility needed to rapidly change course and upscale action. This would include determining how to leverage digitalization and incentives for sustainable initiatives to implement a green recovery in line with the SDGs, such as smart farms and smart energy grids.

In the long-term, participants called for greater investments in innovative devices and technologies, and aligning science, innovation and technology policies for the SDGs, particularly within LDCs. They also called for considering universal connectivity as a growth engine to be leveraged through context-appropriate policies and incentives.

Whole-of-Society Responses for Universal Connectivity

Global collaboration to rapidly develop safe COVID-19 vaccines offered a blueprint for the scale of action needed to address digital connectivity throughout the ongoing crisis. This requires governments and all stakeholders to scale up urgent action.

A joint multi-stakeholder statement, "Leave No One Behind: A People-Centered Approach to Achieve Meaningful Connectivity"[19] was announced and endorsed by thought leaders from industry, civil society and international organizations, including the International Chamber of Commerce, which committed to mobilizing its global network of private sector representatives.[20] In addition, several multi-stakeholder partnerships were showcased in support of universal connectivity:

- The Giga Initiative, launched in 2019 with the aim of digitally connecting every school in the world.[21]

[19] https://webfoundation.org/2021/04/leave-no-one-behind-a-people-centered-approach-to-achieve-meaningful-connectivity/
[20] https://iccwbo.org/media-wall/news-speeches/icc-joins-global-commitment-calling-for-a-people-centered-approach-to-achieve-meaningful-connectivity/
[21] https://www.itu.int/en/ITU-D/Initiatives/GIGA/Pages/default.aspx

- The Smart Villages Blueprint, piloted by ITU in Niger, was referenced as a best practice for achieving rural connectivity through working with local authorities and stakeholders and tapping into the needs and skills of local people.[22]
- The Broadband Commission, launched in 2010 to bring the goal of universal broadband connectivity to the forefront of policy discussions, by convening CEOs and industry leaders, senior policymakers and government representatives, heads of international agencies, academia, and organizations concerned with regional and global development.[23]
- The Edison Alliance, launched by the World Economic Forum in response to the COVID-19 pandemic, to enhance investments into digital affordability and accessibility.[24]
- The Digital Cooperation Organization, a cross-regional partnership to strengthen digital capacities and access to e-trade for 480 million people across 7 countries.[25]
- UNDP Accelerator Labs, a network of 91 social innovation labs serving 115 countries to test solutions with national partners, including via using data for the SDGs.[26]
- A message on behalf of UN Resident Coordinators (RCs) also stressed that the UN Development System reform endowed UN Country Teams with new data capacities and called on stakeholders to reach out to the Resident Coordinators in their country to expand partnerships.

Panel 2: Equitable Access and Digital Empowerment: Securing a Safe, Inclusive, Free and Open Digital Future For All

Panel 2 and its featured Multi-stakeholder Spotlight focused on the means of implementation for an equitable digital future for all, including the protection of the most vulnerable and promotion of social cohesion, as called for in the UN75 Declaration. It also identified the development priorities that should be pursued to ensure global equity regarding job-creation and value-capture in the digital economy, including by leveraging existing mechanisms and processes.

Safe Connectivity

Participants warned that cyber-enabled criminality endangers people's lives, health, and rights. An increase has been registered in online trafficking of falsified medical products by organized crime groups. [27] Procurement scams and data compromise frauds targeting people, hospitals and government agencies, and ransomware attacks to extort funds from hospitals and vaccine-development labs, are also increasing. Human traffickers have been relying increasingly on digital platforms, even prior to the pandemic. During COVID-19 lockdowns, online sexual abuse and exploitation increased, harming women and girls most of all, according to reports from UN Women and the Special Rapporteur on Violence against Women. Risks of violence, exploitation, and abuse continue to increase for children in confinement and in dire socioeconomic conditions.

To better protect people online, participants stressed that Member States must close gaps in regulation, and build the capacities of police, prosecutors and judges to fight cybercrime, including

[22] https://www.itu.int/pub/D-STR-SMART_VILLAGE.NIGER-2020
[23] https://www.broadbandcommission.org/
[24] https://www.weforum.org/the-edison-alliance/home
[25] https://dco.org/
[26] https://acceleratorlabs.undp.org/
[27] https://www.unodc.org/documents/data-and-analysis/covid/COVID-19_research_brief_trafficking_medical_products.pdf

online sexual abuse and the exploitation of children. Public awareness of cybercrime threats must be prioritized. One best practice suggested was enacting and implementing ITU's Child Online Protection guidelines, to help children manage online risks, strengthen digital skills and exercise their rights online.[28] Digital literacy for all, and robust data rights protections, must be prioritized to limit threats to personal safety and security, including the risk of harm resulting from data mishandling, shutdowns, misinformation, hate speech, and online violence.

Inclusive Connectivity

To achieve digital gender equality, speakers stressed that women and girls should not only be end-users of digital technologies, but that they must be included in policy formulation processes from their initial design phases. It was recommended that women's associations could assist in mainstreaming gender-sensitive approaches. An integrated approach in LDCs could include focusing on MSMEs, majorities of which are female-led due to high male migration rates.

Participants noted that by 2050, 20% of the world's population will be over 60 years old, yet today, far less than half of those older adults are online, and the percentage decreases significantly as age increases. The pandemic exacerbated the marginalization of some older adults, leaving them further behind and isolated from work, health, family, and society. Digital literacy for these age groups is vital given their high risk of digital exploitation.

To make digitalization more accessible for persons with disabilities, speakers stressed the need to measure capacity gaps and challenges, establish base-line requirements for accessibility, and incentivize all stakeholders to invest in assistive technology, to allow for greater independence and participation in all aspects of life. Reference was also made to the potential use of AI and machine learning to inexpensively create visual descriptions of content and closed captioning.

Digital Opportunities for All

Regarding digitalization's immense developmental potential, participants noted that 230 million digital jobs could be created in sub-Saharan Africa by 2030, but to achieve them numerous bottlenecks relating to infrastructure and digital skilling had to be overcome, including developing legal digital frameworks. UNCTAD's eTrade for All initiative was cited as supporting developing Member States' capacities in this regard.[29] Official Development Assistance (ODA) dedicated towards developing digital ecosystems in LDCs could have transversal benefits for the SDGs.

Regarding job creation and preparing youth for the digital future, reference was made to Generation Unlimited (Gen-U), a public-private partnership platform focused on connecting youth to opportunities for employment, entrepreneurship and social impact.[30] Reference was made to the Gen-U collaboration to create a platform to connect 300 million young people to career guidance, training and jobs, and make sure the voice of youth is represented in public policy.

[28] https://www.itu.int/en/mediacentre/Pages/pr10-2020-Guidelines-Child-Online-Protecion.aspx
[29] https://unctad.org/topic/ecommerce-and-digital-economy/etrade-for-all
[30] https://www.generationunlimited.org/

Education is a key pillar of sustainable development and economic growth. When education systems collapse, societies cannot be sustained. Participants reflected that COVID-19 led to the worst education and learning crisis in history with far-reaching implications. To address this threat, reference was made to the multi-stakeholder Global Education Coalition working closely with countries to establish normative understandings of utilizing technology as a force for good to accelerate progress on Sustainable Development Goal 4.[31]

AI and Leapfrogging for the Sustainable Development Goals

AI's intersections with the entire 2030 Agenda were highlighted.[32] Leapfrogging can be achieved through greater focus on digitalizing informal sectors such as agriculture and fisheries, which comprise between 60% to 80% of GDP in developing countries. Oxfam's "BlocRice" initiative in Cambodia was cited as a best practice, using blockchain to empower women smallholder farmers secure decent earnings from organic rice productions, through improved transparency and traceability and easing their integration into global supply chains.[33]

Global Governance

Greater regional and international cooperation is needed to mitigate current and future digital risks relating to issues such as data use, cybercrime and cybersecurity, and misinformation among others. Regarding the possibility of establishing an independent digital regulatory agency to address them, participants noted that there remains insufficient convergence or common ground among the UN's 193 Member States to do so yet.

Despite the benefits of establishing a global regulatory body to govern digital affairs, there remains insufficient convergence or common ground among the UN's 193 Member States. Developing countries often face capacity constraints which hinder their engagement, particularly in instances where the vast majority of digital technical and legal expertise lies within the private sector, whose consultancy services regarding digital governance are not accessible to many developing countries.

Participants reflected on Member States' varying priorities, including the moderation/regulation of online content or formulation of policies to support competitiveness and access to markets. They also cautioned that greater digitalization should not lead to the global prevalence of 'gig economies' that create a race to the bottom with limited protections for workers.

Panel 3: Greening The Digital Future: Local, Regional and Multilateral Partnership

Panel 3 and its featured Multi-stakeholder Spotlight focused on partnerships to close the digital divide in line with global environmental targets, including on energy, e-waste and sustainable consumption and production, and utilizing greater digital connectivity, and broader access to data and predictive analytics to contribute towards urgent environmental action.

[31] https://globaleducationcoalition.unesco.org/
[32] "ITU: AI for the SDGs": https://www.youtube.com/watch?v=ND7pvShNdlg
[33] https://cambodia.oxfam.org/BlocRice

Several participants noted that promoting universal access to energy is a prerequisite to achieving global access to digital technology. Digitalization plans must include safeguards against potential environmental challenges such as unsustainable energy usage and greater e-waste. Adopting integrated national renewable energy plans including smart grids and microgrids, as well as environmentally-friendly production processes for digital hardware, is therefore essential to greening digital infrastructure. Digital technologies can also promote precision agriculture and prevent food waste, two cross-cutting environmental issues which will have transversal benefits across the 2030 Agenda. Participants underlined the urgency and potential for technologies that advance climate neutrality and emissions reductions while tackling pollution and resource depletion. It is important for rural and underserved communities to have access to such tools to enact whole-of-society environmental response plans.

The challenges faced by LDCs, LLDCs and SIDS regarding digital connectivity and accessibility are stark, particularly in relation to hardware, software, capacity-building, digital literacy and digital skilling. Limited digital connectivity seriously hampers LDCs' ability to participate in climate and environmental negotiations conducted digitally due to the COVID-19 pandemic, including in the run up to UNFCCC COP26. More global environmental data is required to support policymaking, implementation efforts and monitoring progress on environmental targets. In this regard, reference was made to the Global Enabling Sustainability Initiative's compilation of best practices in reports on System Transformations, Enabling the Global Goals and Achieving Digitalization with a Purpose. [34] The digital divide's continuation limits data collection, particularly in LDCs, LLDCs and SIDS who are the most adversely impacted by environmental degradation. More data for early disaster warning systems was emphasized as a practical necessity for all countries.

Digital technologies and connectivity must be utilized to upscale multi-stakeholder partnerships in support of global environmental action. Participants noted that positive and optimistic digital environmental advocacy campaigns that focus on the societal benefits and feasibility of environmental action are more effective at galvanizing popular action than those that focus only on threats. Using Augmented Reality technologies to share illustrations of eco-cities blanketed in vertical forests, green-walls, and futuristic urban farms can build popular support for living in harmony with nature. The Coalition for Digital Environmental Sustainability (CODES) was highlighted as a global multi-stakeholder initiative to catalyze digital environmental sustainability while ensuring no one is left behind, including by establishing new transparency and disclosure standards to ensure that the public knows the importance of sustainability metrics.[35] The Internet Governance Forum was also mentioned as a high-level platform that could bringing stakeholders together to accelerate greening digital infrastructure.[36]

High-Level Plenary

[34] https://gesi.org/
https://systemtransformation-sdg.gesi.org/160608_GeSI_SystemTransformation.pdf
https://gesi.org/research/enabling-the-global-goals
https://gesi.org/research/enabling-the-global-goals
[35] https://www.sparkblue.org/DigitalPlanet
[36] https://www.intgovforum.org/multilingual/

The plenary included 70 statements by Heads of State and Government, Ministers and Permanent Representatives. Many Member States outlined their national and regional challenges, policy responses and commitments, and announced initiatives and partnerships for future action.[37]

Many member states noted that even prior to the COVID-19 pandemic, digital equity and inclusion were of critical importance for the sustainable development agenda.[38] Unfortunately, the pandemic exacerbated inequalities within and between countries that compounded the marginalization of the digitally disconnected. These unprecedented circumstances have exposed our collective vulnerability to disruption and abuse, revealing digital skills gap and the urgent need to increase digital education. According to UNESCO, even in developed countries, 10% of students experience issues with accessing digital education. It has exposed gaps that have serious implications for education especially in rural areas. Over 2 billion children around the world fall into the homework gap.[39]

Investing in digital infrastructure should become one of the top priorities of policy makers on the regional, national and international levels to adapt and recover from the pandemic's impacts. The multi-stakeholder approach should be a standard in designing initiatives to further digital transformations and ending the digital divide. The pandemic has created opportunities to accelerate digital transformations, and an environment favorable for the upgrade of information and technology for states with the resources to do so. In this regard, Member States recognized the vital work of the UN Technology Bank for LDCs in striving to enhance LDC scientific research and innovation capacities for globally equitable digitalization.

In today's world, access to affordable high-speed Internet and ICTs is a human right that all countries must urgently work towards. With that said, greater digitalization also comes with risks, like mass surveillance and cyberattacks that extract people's personal data, that must be addressed. In 2020, the world saw more than 150 targeted internet shutdowns and further crackdowns on human rights online. The Universal Declaration of Human Rights was crafted with foresight to include and accommodate future technological developments for individuals to exercise their economic, social, and cultural rights.

The emergence of frontier technologies such as AI, robotics and biotechnology have fundamentally altered business models in all dimensions of sustainable development. These technologies have endless possibilities. AI can map poverty from outer space, and revolutionize classrooms by providing individualized learning pathways and virtual mentors. Intelligent automation can increase productivity for economic growth, while disability robotics can build a more equal and inclusive society, and pattern recognition software can track the movement of

[37] National remarks submitted to 'E-Statements' are available on:
https://journal.un.org/en/meeting/officials/fdc66e4f-6a97-eb11-911d-0050569e8b67/2021-04-27/statements
https://journal.un.org/en/meeting/officials/03c76e4f-6a97-eb11-911d-0050569e8b67/2021-04-27/statements
https://journal.un.org/en/meeting/officials/fa61ec72-cdb4-eb11-911e-0050569e8b67/2021-05-24/statements
Recordings of the High-level Dialogue are available on:
https://media.un.org/en/asset/k1a/k1av7rb3ez
https://media.un.org/en/asset/k15/k15c7pp74b
https://media.un.org/en/asset/k1f/k1fcw7fzy1

[38] In 2019, the UN set a goal to increase broadband penetration to 75% by 2025

[39] https://data.unicef.org/resources/children-and-young-people-internet-access-at-home-during-covid19/

fishing boats. By 2030, the number of connected Internet of Things (IoT) devices worldwide will reach to 125 billion in 2030. The entire world is adapting to innovative technology as we aim to build back better from the pandemic's socio-economic impacts. Developing countries should aim to leapfrog into the digital era by adopting emerging technologies, including those that allow MSMEs to integrate more easily into the world economy and supply chains.

Equitable global digital transformations require inclusive digital governance that ensures that the voices of developing countries are heard on issues such as tax policies, free and fair trade, and cybercrimes, cyber security, threats, disinformation, propagation of hate and violence. Effective cooperation mechanisms are also needed to prevent fragmentation of the digital landscape. Environmentally friendly digitalization must be integral to all countries' national COVID-19 recovery plans. Multilateral digital cooperation and connectivity are critical for the green transition. Digital technology can help mitigate climate change and prevent disasters, while lack of connectivity impairs resilience to climate change impact. The international community must agree on shared environmental guidelines for the digital transformation.