

Forum: General Assembly
Issue: Assisting and accelerating the digitalization of developing nations
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Introduction

Digital technologies have enabled rapid development in many countries. Notably, since the 1990s, as internet access became more accessible, new, and unique fields and industries that boost the economy and create more jobs have been established. Especially in a pandemic like COVID-19, digitalization has provided stable communication between the people and the government.

Digitalization has further boosted the development and the economy of HICs and some MICs. However, at the end of 2021, 3 billion people in the world remained offline, mostly residing in developing nations, with further usage gaps between gender, age, and rural/urban areas. Technology has brought the immeasurable potential for the establishment of a better world, assisting the achievement of our sustainable development goals (SDGs). Yet the rapid development technology has had and the development that it has brought us still does not reach everyone; it is estimated that 37% of all individuals still have never used the internet. This implies that one-third of the population is blocked from the means to rapid development, access to information, and job opportunities.

In discussing this topic, we should focus on not only the provision of technology, but also the skillsets the workforce needs and the capacity for cybersecurity for these developing nations; devising a resolution that not only solves this issue at hand but is also lasting, is key to assisting and accelerating the digitalization of developing nations.

Definition of Key Terms

Digitalization

Digitalization refers to the access to and the usage of digital information to provide new revenue and opportunities, not to be confused with digitization and digital transformation. Digitization is the process of creating a digital version of something. Digitalization is access to such digital data. Digital transformation is the adoption of new technologies and information into creating entirely new businesses. Examples of that would include newly opened topics like cryptocurrencies. These terms

should not be used interchangeably. However, there is no sharp distinction between these terms, so as you research this topic, please try to stick to the definition given here.

Digital divide

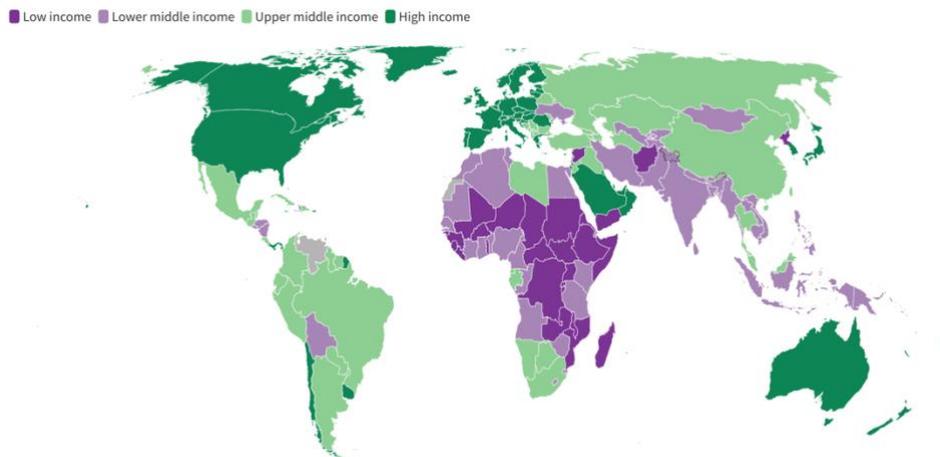
A term that refers to the gap between those who have access to technology and those who have no or limited access.

Information and communication technologies (ICTs)

Used as an umbrella term for any technologies. This may appear as you research; it is the same as the common usage of the term “digital technologies”.

Developing nations

This conference recognizes developing nations based on the World Bank’s definition of low-income countries (LICs) and lower-middle-income countries (LMICs), measured by gross national income (GNI) per capita and population size. Specifically, LICs refers to countries whose GNI is 1085USD or lower and LMICs are 1086USD to 4255USD. For the full list of LICs and LMICs, please refer to the appendix.



Caption #1: The world map recognized by income (The World Bank)

Background Information

The benefits of digitalization

Influences on economy

Digitalization has supported the economy through establishing digital trade, which encompasses two aspects: digital services and e-commerce. Digital trades have rapidly dominated physical ones, especially under the influence of the pandemic.

Digital delivered services are services that can be delivered over ICTs, such as ICT services themselves, online classes, and financial services. The United Nations Conference on Trade and Development noted that in 2020, the global services exports decreased by 20% in comparison to 2019, but also noted that the digitally deliverable services exports declined by only 1.8%, resilient to the economic challenges brought by the pandemic. This evinces the potential of digitalization and ICTs not only in COVID-19 recovery but also in boosting the economy.

Influences on education

Access to education has been greatly aided by ICTs, allowing remote students and students of lower income to afford higher education. One of those changes is the increase in access to online learning. Especially during the pandemic, online learning became the norm. In 2016, 21 million students were learning online on the platform Coursera. In 2021, 92 million students registered for Coursera courses. Online learning has enabled students from LICs and LMICs to have access to more opportunities. According to Coursera, the highest rate of learner growth came mostly from students from emerging countries, referring to LICs and LMICs. This suggests great potential in providing further access to education for people in LICs and LMICs, as once they are given the resources, they can make use of and benefit from them.

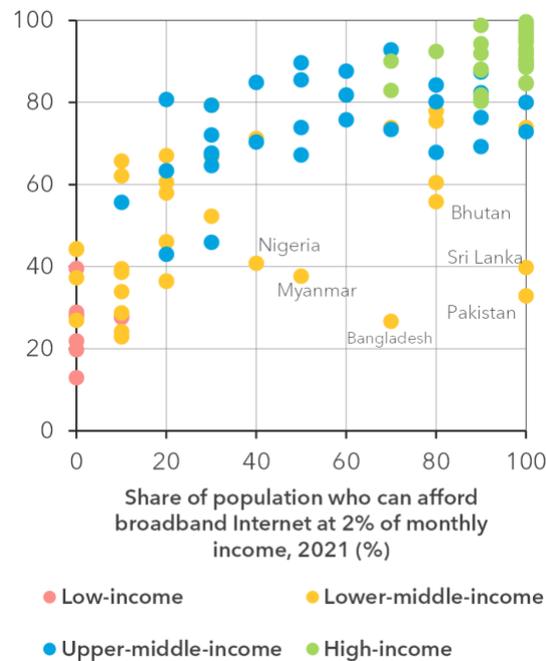
However, despite deploying remote learning through forms of ICT, more than one-third of LICs reports that 50% of their children have not gained access to such forms of learning due to the lack of devices and parental support.

The approaches to digitalization

While some argue digitalization for LIC and LMICs could take a leapfrog, skipping steps to get to current levels of digitalization, some believe that fundamentals need to be established before achieving the previously mentioned benefits. The argument is that LICs and LMICs differ in their digital needs compared to more developed countries, hence the process of digitalization should be catered to these issues first: they have lower internet access, limited access to technology, and less access to electronic services. In this case, what is more pressing is to promote the adoption of ICTs and invest in the development of digital infrastructure to ensure coverage and connectivity.

Current situation

Currently, only 4.1 billion people, nearly half of the global population, have access to the internet. Specifically, LICs only have 19.1% of their population connected to the internet. Millions of people are not entirely connected digitally due to the cost that comes with subscribing to services and the purchase of ICTs. For those who subscribe to internet services, the fixed broadband connections are out of reach in LICs and some LMICs, and the connection speeds are slower than that of higher-income countries. Despite the affordability in the access to broadband improving, these services in LICs and LMICs still do not reach the global affordability target (a goal set by the International Technology Union to control the prices of broadband services at below 2% of their gross national income). In LICs and LMICs, consumers pay 5 to 6 times more percentage of their income to use ICT services than ones in HICs. With the pandemic, the number of economies reaching the target has not increased but instead decreased, with only 4 of the least developed countries reaching this goal: Bangladesh, Bhutan, Myanmar, and the Republic of Nepal. This lack of affordability is one of the crucial setbacks preventing LICs and LMICs from achieving digitalization as it perpetuates the cycle of low subscription rates and unaffordable broadband prices.



Caption #2: The share of the population using the internet organized by the income of countries (ITU)

The implementation of ICT services in developing countries has been difficult. One example is M-PESA, a mobile money service originating in Kenya that allows payment to be done digitally and provides financial services. M-PESA has reached 51 million customers, making over \$314 billion in transactions. However, this is also still limited by the lack of internet connectivity.

As stressed, the issue lies in the lack of affordability for these services. In some of the least developed countries, 5GB of fixed broadband costs more than 20% of their monthly income.

Areas of consideration

To assist the digitalization of developing countries, it is necessary to acknowledge the challenges this action puts forth, or in other words, problems that the resolution should seek to solve.

Interdependent development of technologies

In implementing digitalization, one must realize that the process is often interdependent and goes hand in hand with each other to create a dynamic ecosystem, that ICT service, content industries, communication, digital infrastructure, cyber policies, and transformation services need to be installed at the same time. This calls for further cooperation between companies and sectors within the country.

Digital inclusion

Despite ICTs being available, there are gaps between people of different socioeconomic statuses, gender, and age. As the UN document, Roadmap for Digital Cooperation, notes, “in two out of every three countries, more men use the internet than women”. This gender gap is growing as the percentage increased from 17% in 2019 to 43% in 2020. Migrants, elders, people with disabilities, and rural populations face similar challenges. 71% of the younger population have access to the internet compared to 57% of other age groups. Internet users in urban areas double those in rural areas. This emphasizes the need for policies that not only ensure access to ICTs but also provide necessary skills and digital literacy for these communities, acknowledging social barriers.

Digital capacity building

Referring to training and skills development, digital capacity building is required for LICs and LMICs to transition and benefit from digitalization. Some of this capacity building includes familiarizing those in LICs and LMICs with digital jobs and securing information online. In Sub-Saharan Africa, it is estimated that in 2030 there will be 230 million digital jobs, gaining \$120 billion in revenue but also needing 650 million training sessions. One of the issues that arise in satisfying this goal is the lack of investment and supplies, especially as these capacity-building approaches have better results when catered to the demographic. This means there needs to be more coordination between international organizations and governments.

Major Countries and Organizations Involved

The World Bank

The World Bank is an international financial institution that helps LICs and MICs by providing loans and grants. The World Bank is made up of two parts: the International Bank for Reconstruction and Development, lending to MIC and LICs, and the International Development Association providing interest-free loans for LICs.

The Digital Development Global Practice is one of the projects the World Bank has, working with governments to provide a strong foundation for digitalization to thrive. In this project, they focus on stimulating demands for ICT-related services. Digital Development Partnership (DDP) is another opportunity provided by the World Bank, bringing the public and private sectors together to accelerate digitalization. The World Bank has also provided countries with cybersecurity-associated funds, a project that was initiated in 2021. The DDP has 6 areas of focus: data and indicators, digital economy, internet access for all, cybersecurity, digital government, and mainstreaming digitally.

International Telecommunication Union (ITU)

The ITU is an UN-specialized agency for ICTs, responsible for the development of standards and digital connectivity around the world. Specifically, the agency focuses on three sectors: radiocommunication, coordinating services (e.g., satellites, television programs, navigation), standardization (such as ones for video compression and home networking), and development, where it focuses on bridging the digital divide.

In 1952, the ITU joined the United Nations Expanded Programme of Technical Assistance, which later merged with the UN Special Fund forming the United Nations Development Programme, to contribute to the telecommunication sector, specifically aimed to provide experts for developing countries in technological fields and provide training for the people in developing countries. They focused on the expansion of telecommunication services in Africa, Asia, and Latin America, and some regional networks in Asia-Pacific and the Middle East. Some of their projects include Pan-African Telecommunications Network and the Middle East and Mediterranean telecommunication master plan. Furthermore, the ITU has established multiple groups that provide guidelines or encourage the participation of global leaders on the topic of reducing the gap between access to technology. Some examples are the Bridging the Standardization Gap program that allows developing countries to participate in implementing standards for ICT services, the Global Symposium for Regulators that brings leaders together annually to share

views and experiences on regulatory issues during Connect the World summits that mobilize resources to achieve the targets set in other ITU-organized meetings.

The contributions of the ITU ensure standardized access to ITCs, such as smoothly running communications through radiocommunication, affordable ICTs, and opportunities for ICT-centered entrepreneurship. This is also one of the main data sources and statistics revolving around the availability of ICTs.

United Nations Technology Bank for the Least Developed Countries

Beginning its operation in 2017, the Technology Bank for the Least Developed Countries is an organization that focuses on providing technology and innovation for the 46 least developed countries. The organization works with 180 international publishers, universities, and other organizations to ensure online access for the people in LICs.

There are three main categories which their projects fall under the Technology Transfer Programme (projects that help countries transfer technologies), Technology Needs Assessments (a country-initiated report that reflects the need of the country, allowing for a more specific and efficient implementation phase), and STI Policy & Capacity (which ensures the domestic capacity for new technologies).

European Investment Bank

The European Investment Bank is one of the biggest financial institutions in the world, governed as a European Union (EU) body and a bank. It works within the EU to boost digitalization and the digital economy. One of the recent projects was the implementation of ICTs to improve the motorway infrastructure in Morocco. €85 million was allocated to implement electronic tolls and a real-time traffic monitoring system. Another project was helping Georgia to install a broadband network in rural areas with the provision of €34 million. This benefited 500,000 people in 1000 villages, providing fast internet and encouraging local businesses.

Timeline of Even

Date	Description of event
1865	The ITU is founded for international connectivity.
1951	The ITU joined the United Nations Expanded Programme of Technical Assistance (the previous United Nations Development Programme) to contribute

	to the telecommunication sector, specifically aimed to provide experts for developing countries in technological fields and provide training.
1960	A Technical Cooperation Department within ITU was created for improving telecommunication networks in LICs and LMICs.
1964	UNCTAD is established by the UN General Assembly.
1984	The ITU Independent Commission for Worldwide Telecommunication Development published a report that initiated efforts to improve the development of ICT services internationally.
2008	The ITU created the Bridging the Standardization Gap project
2016	The Digital Development Partnership was planned and launched by the World Bank Group. It gathered \$2.1 million for 14 activities to aid countries in establishing digitalization.
2017	UN Technology Bank for the Least Developed Countries is established.

Relevant UN Treaties and Events

- The promotion, protection, and enjoyment of human rights on the Internet, 13 July 2021 (A/HRC/RES/47/16)
- Information and communications technologies for sustainable development, 5 December 2019 (A/GA/RES/74/378)

Previous Attempts to Solve the Issue

Despite having multiple laws and organizations aiming to regulate and aid the situation, the global community is not taking nearly enough actions to assist developing countries in digitalization, especially tackling the issue that is the most important: providing access to an affordable and reliable network.

Pan-African e-Network Project

The project was achieved through cooperation between the African countries, the government of India, and a sponsor company, Telecommunications Consultants India Limited (TCIL). This project was initiated in 2009 when the rapid development of ICTs presented itself as a solution to accessible education and affordable health care. It focused on providing ICT services through satellite and fiber-optic networks to ensure access to tele-education, online health care, resource mapping, e-governance, and e-commerce. This initiative is one of the largest e-health and e-education projects as it is estimated

to reach 54 African countries, and more than 10,000 students enrolled in online courses within five years. This project also offers higher education for those wishing to become doctors and nurses.

This is a good example of what countries could consider implementing globally, as it digitalizes a nation with the consideration of its longevity – the training programs and continued education allow the people to familiarize themselves with technologies and use them to their advantage.

Transfer of affordable housing construction technologies in Mozambique

This is one of the projects created by the UN Technology Bank for the least developed countries. Mozambique is periodically influenced by extreme weather events such as floods and cyclones, which could lead to the destruction of homes for thousands. To tackle this issue, the Ministry of Public Works, Housing and Water Resources of Mozambique worked together with the UN Technology Bank to convert to affordable housing materials and technologies that are more resilient to extreme weather events. The project focuses on increasing the scientific capacities of governmental bodies, so they can utilize the technologies and use rammed earth dwellings for their constructions.

Hear, Listen and Speak program for all Bhutanese children

This project was initiated by the Technology Bank and Medtronic Labs (a community-based organization that aims to provide health care for underserved patients). With the consortium, the two organizations created, the Kingdom of Bhutan could provide newborn hearing screening, hearing technology, and habilitation for children having difficulty hearing or who are deaf. Furthermore, the project also aims to provide treatments for these children along with helping the children aged 0-6 to learn to listen and speak. Additionally, the project promises to provide hearing care services for children from 7-14 years old to protect their years. It is expected that within the three years after it launches, that 190,000 children aged 0-14 will be screened.

Possible Solutions

Providing internet access for all

Asking HICs or international organizations to provide technologies and aid for LICs and LMICs to install fixed broadband, especially in rural areas, could benefit these developing countries as a basis for further development.

When providing internet access, however, it is also important to consider the inequality among gender, race, and age. This could be tackled by having organizations like the ITU work with local

organizations to provide focused and customized training sessions for all individuals to gain access to digital technology. For example, providing training sessions for elders through localized organizations, and the sessions on specific themes that are the most needed such as accessing online health counselors and contacting members of their families.

Additionally, the resolution should consider the affordability of the internet relative to their gross national income. The high internet price could be a result of a lack of investment in infrastructure, a lack of competition within the market, and a lack of governmental subsidies. Hence, it may be effective to provide expert teams to reassess and devise plans that better aid the country's technological development, modifying their tax policies and investments. Another method could be to receive aid from organizations and countries that are later paid for through the aided countries' development.

Localized research for needs and providing what is needed

Conducting surveys and further local research on what is lacking and what needs to be tackled is necessary for effectively achieving digitalization. Through localized research, the main demographics who are not digitally literate – the ones who need the most help to transition to new technologies – may be women, for example. Knowing the demographic of the training sessions, and the means to reach them ensures efficient capacity building. This research can be done by working with ITU's regional sectors. Already established reports, such as annual ones mandated by the World Information Society Day, could also be used for that purpose.

After researching, the resolution should consider providing capacity building. One way to have people comply with capacity building is to incentivize them in learning the necessary skillsets. It is necessary to provide ICTs for all levels of education, as a step forward but also to recover from COVID-19.

Encouraging e-commerce through workshops and policies

Another possible solution would be to provide workshops and training sessions for individuals in LICs and LMICs to encourage smaller businesses to use ICTs and facilitate e-commerce, implementing internationally accepted systems that are inclusive and encouraging for LICs and LMICs. The policies should also allow better communication between importers, exporters, and authorities while also ensuring that there are neutral parties overseeing the trade.

Bibliography

“About International Telecommunication Union (ITU).” *ITU*,
<https://www.itu.int/en/about/Pages/default.aspx>.

“ABOUT UNCTAD.” *UNCTAD*, <https://unctad.org/about>.

Avgerou, Chrisanthi, et al. “Growth in ICT Uptake in Developing Countries: New Users, New Uses, New Challenges - Journal of Information Technology.” *SpringerLink*, Palgrave Macmillan UK, 21 Dec. 2016, <https://link.springer.com/article/10.1057/s41265-016-0022-6>.

Bogush, Pia. “Digitalization vs Digitization – Knowing the Difference.” *Businessstechweekly.com*, [https://www.businessstechweekly.com/operational-efficiency/digital-transformation/digitalization-vs-digitization/#Digitization-vs-Digital-Transformation](https://www.businessstechweekly.com/operational-efficiency/digital-transformation/digitalization-vs-digitization/#Digitization-vs-Digitalization-vs-Digital-Transformation).

Development Matters. “How Emerging Markets Can Leapfrog into the Digital Age.” *Development Matters*, 10 Nov. 2021, <https://oecd-development-matters.org/2021/10/06/how-emerging-markets-can-leapfrog-into-the-digital-age/>.

Eib. “Georgia: Team Europe - EU and EIB Invest in Fast Internet Connection for Rural Georgia.” *European Investment Bank*, European Investment Bank, 27 Apr. 2022, <https://www.eib.org/en/press/all/2021-468-team-europe-eu-and-eib-invest-in-fast-internet-connection-for-rural-georgia>.

Eib. “Morocco: €85 Million Finance Contract Signed to Accelerate the Digitalisation of Motorway Infrastructure.” *European Investment Bank*, European Investment Bank, 2 June 2021, <https://www.eib.org/en/press/all/2021-079-maroc-signature-d-un-contrat-de-financement-de-85-millions-d-euros-pour-accelerer-la-digitalisation-des-infrastructures-de-transport-autoroutieres>.

European Investment Bank. “DIGITALISATION IN EUROPE 2020-2021.” 2021, https://www.eib.org/attachments/efs/digitalisation_in_europe_2020_2021_en.pdf.

Fusiek, Dawid A. “How Digitalisation Creates New Opportunities and Growth in Developing Countries.” *European Investment Bank*, European Investment Bank, 27 Apr. 2022, <https://www.eib.org/en/stories/digitalisation-developing-countries>.

Global Connectivity Report 2022, <https://www.itu.int/itu-d/reports/statistics/2022/05/30/gcr-chapter-5/>.

Gonzalez, and Schlautmann. "Digital Transformation in Developing Countries." Oct. 2017.

"How Does the World Bank Classify Countries?" *How Does the World Bank Classify Countries? – World Bank Data Help Desk*,
<https://datahelpdesk.worldbank.org/knowledgebase/articles/378834-how-does-the-world-bank-classify-countries>.

International Telecommunication Union. "Infrastructures and Services." *ITU*,
https://www.itu.int/en/ITU-D/ICT-Infrastructure/Pages/ICT-Infrastructure_about.aspx.

"Internet Governance Glossary - 7.4 Conventions and Treaties, Regulations and Legal Instruments." *UNESCO*,
<https://en.unesco.org/glossaries/igg/groups/7.4%20Conventions%20and%20treaties%2C%20regulations%20and%20legal%20instruments>.

"M-Pesa." *Vodafone.com*, <https://www.vodafone.com/about-vodafone/what-we-do/consumer-products-and-services/m-pesa>.

"Nearly Half of World's Population Excluded from 'Benefits of Digitalization', Speaker Stresses as Second Committee Debates Information Technology for Development | UN Press." *United Nations*, United Nations, <https://press.un.org/en/2019/gaef3523.doc.htm>.

Partnership, Digital Development. "About." *DDP • About*,
<https://www.digitaldevelopmentpartnership.org/about.html>.

Tarpey, Matt. "A Brief History of Digitization." *Exelatech*, https://www.exelatech.com/blog/brief-history-digitization?language_content_entity=en#:~:text=Digitization%20essentially%20began%20with%20the,we%20relax%20and%20entertain%20ourselves.

"These 3 Charts Show the Global Growth in Online Learning." *World Economic Forum*,
<https://www.weforum.org/agenda/2022/01/online-learning-courses-reskill-skills-gap/>.

UN General Assembly Resolutions on Ict's for Sustainable Development.
<https://d8.intgovforum.org/en/content/un-general-assembly-resolutions-on-icts-for-sustainable-development?language=en>.

"UNCITRAL Model Law on Electronic Commerce (1996) with Additional Article 5 Bis as Adopted in 1998 Commission on International Trade Law." *United Nations*, United Nations,

https://uncitral.un.org/en/texts/ecommerce/modellaw/electronic_commerce#:~:text=The%20Model%20Law%20on%20Electronic,legal%20predictability%20for%20electronic%20commerce.

UNCTAD. "Digital Trade: Opportunities and Actions for Developing Countries." Jan. 2022, https://unctad.org/system/files/official-document/presspb2021d10_en.pdf.

United Nations. "Report of the Secretary-General Roadmap for Digital Cooperation." June 2020, https://www.un.org/es/content/digital-cooperation-roadmap/assets/pdf/Roadmap_for_Digital_Cooperation_EN.pdf.

"What Is Digitization, Digitalization, and Digital Transformation?" *ARC Advisory Group*, 24 Mar. 2020, <https://www.arcweb.com/blog/what-digitization-digitalization-digital-transformation>.

The World Bank. "About the World Bank." *World Bank*, <https://www.worldbank.org/en/about>.

The World Bank. "The World by Income and Region." *WDI - The World by Income and Region*, <https://datatopics.worldbank.org/world-development-indicators/the-world-by-income-and-region.html>.

The World Bank. "World Bank Country and Lending Groups." *World Bank Country and Lending Groups – World Bank Data Help Desk*, <https://datahelpdesk.worldbank.org/knowledgebase/articles/906519>.

Appendices

- I. How the World Bank categorizes countries by income and the elaborate list of countries of each categorization. <https://datahelpdesk.worldbank.org/knowledgebase/articles/906519>
- II. Overview of digitalization in Europe https://www.eib.org/attachments/efs/digitalisation_in_europe_2020_2021_en.pdf
- III. Guideline to digitalization offered by the UN https://www.un.org/es/content/digital-cooperation-roadmap/assets/pdf/Roadmap_for_Digital_Cooperation_EN.pdf
- IV. Discussions and speeches were given by delegates on the topic of digital development <https://press.un.org/en/2019/gaef3523.doc.htm>
- V. A summary of previous actions and documents taken by the General Assembly <https://www.intgovforum.org/en/content/un-general-assembly-resolutions-on-icts-for-sustainable-development>
- VI. Overview and analysis of digitalization by UNCTAD https://unctad.org/system/files/official-document/presspb2021d10_en.pdf