

Forum: United Nations Educational, Scientific and Cultural Organization

Issue: The question of information and communication technologies to empower vulnerable societies

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Introduction

As the world moves forward, having technology has slowly become a need for a human being. The development of [information](#) and [communication technology](#) (ICT) has a strong potential to transform societies and economies by improving education, having access to certain human needs and creating new collaborative models to help solve world problems. As technology develops through time, it allows us to make vehicles, machines, electronics and it is an industry that can't collapse. Modern technology has rapidly increased, creating new ways to live and job opportunities for people and suppressing humankind's limitations.

[Vulnerable populations](#) have been increasing gradually with more than 800 million people. A vulnerable society is divided into 3 groups; social, physiological and physical, physical needs include high-risk people with severe medical conditions such as diabetes, hypertension and heart diseases. In the psychological domain, vulnerable populations include those with chronic mental conditions such as major depression, bipolar disorder and schizophrenia, whereas, in the social realm, the vulnerable populations include those living in abusive families, homeless, immigrants, refugees or citizens of [Less Economically Developed Countries \(LEDC\)](#).

Fortunately, the United Nations has established the [United Nations Sustainable Development Goals \(SDGs\)](#) in 2015 to tackle severe world issues including poverty, lack of hygiene and the environment, the goals should be accomplished by 2030. The Sustainable Development Goals are conveyed as a “blueprint” to a more sustainable

world. Seventeen different goals tackle the different aspects of main issues in the world. The sub-goal of 17.8 is a goal designed to help least developed countries by enhancing the use of technology, in particular ICT.

The United Nations Educational, Scientific and Cultural Organization (UNESCO) has been a big part of the SDGs and created policies and objectives to help overcome some goals. This issue at hand is part of it. This allowed UNESCO to create their own set of goals and objectives, called the Global Action Programme (GAP), where they address lack of education, lack of clean water and lack of internet towards vulnerable societies.

Using these goals that UNESCO and UN created, researchers and experts believe that the usage of any form of ICT can substantially help the progression of the goals. For instance, [Social Media](#) and its fundraisers to aid the reduction of the poverty rate around the world or an app such as mWater to help determine the cleanness of water by interconnecting the community. As technology improves through time and the world becomes more globalized, the number of ideas that can be possible to assist the completion of these goals has substantially grown with companies, governments and the UN implementing these unavoidable issues.

The problems that a vulnerable society faces are tremendous. ICT has been proven to be an effective tool to assist these issues and help in the creation of a more sustainable world and increase [globalization](#).

Key Terms

Communication Technology

The transfer of messages/information among people and/or machines through the use of technology.

COVID-19

COVID-19 or Coronavirus is a deadly virus that spreads between humans and has started in 2019.

Cybercrimes

Criminal activities carried out by using the computer or the internet.

Empower

To give authority or power to someone or a population to do something and take control.

E-Waste

Discarded electronic appliances such as laptops, mobile phones, televisions and other electronics.

Fossil Fuels

Energy from decomposing plants and animals, they are finite.

Fraud

A person intended to deceive and manipulate others, usually occurs through the internet.

Globalization

The spread of products, technology, information, and/or jobs across multiple nations and cultures.

Hacking

The gaining of unauthorized access to data in a computer system.

Healthcare

Refers to the institutions, people and resources involved in delivering adequate health care to individuals.

Information Technology

The study, design, development, implementation, support or management of computer-based systems - these are particular in software application and computer hardware.

International Telecommunication Union (ITU)

The International Telecommunication Union is a specialized agency of the United Nation, where it's main responsible for all matters that are related to ICTs.

Less Economically Developed Countries (LEDCs)

LEDCs are countries with a lower standard of living, usually with a lower GDP than the rest of the world.

More Economically Developed Countries (MEDCs)

MEDCs are countries with a higher standard of living, usually with a high GDP.

Renewable Energy

Energy from a source that is not depleted when used, such as wind or solar power.

Social Media

Websites or Application enabling people to share or create content or to participate in social networking

Vulnerable Society/Population

A population or a group of economically disadvantaged individuals, racial and ethnic minorities, uninsured, low-income children, the elderly, the homeless, and people with chronic health issues, such as severe mental illness.

United Nations Sustainable Development Goals

17 Goals created by the United Nation to ensure a more sustainable world by 2030. These 17 goals tackle severe global issues such as poverty, climate change, water and earth life.

Key Issues

Poverty

The international poverty line set by the World Bank is \$1.9 per day. The continent of Africa has reported having 490 million people who live in line or below the poverty line, this devastating number results in 36% of the population of the continent. Where the number is increasing day by day as the [COVID-19](#) pandemic has impacted the people by raising the unemployment rate and shutting down businesses. With this, poverty enables unaffordability towards certain luxuries such as electronics and technology as most/all of their money goes towards their basic needs. According to sources, only 14.3% of households in Africa have access to the internet, compared to 57.4% globally.

E-Waste

Poverty creates a rise in unemployment. Desperate, people create new businesses in the e-waste industry. E-waste is normally from [more economically developed countries \(MEDCs\)](#). People living in MEDCs push e-waste out of their nation because of the main reasons for the upgrade. Upgrades towards current electronics, studies have shown that every 3 years or so, consumers upgrade their electronic device, the usage of electronic devices has expired in the hands of the consumer. This benefits the company and consumers however the consequence regarding the waste of electronics has very limited solutions.

Furthermore, electronics are imported to LEDC countries, which litters towns and villages and introduces serious health and environmental risks. This happens because of the chemicals such as mercury, lead, cadmium, barium and lithium that are produced

because of e-waste. A study conducted by the BBC stated that 200 million people worldwide are at risk of exposure to toxic waste.

Energy and Electricity

Electricity is at the forefront of modern technology, during the last few decades, access to electricity has increased drastically, where 86% of the world gets access to electricity every day. Nevertheless, 13% of the world, or 940 million people respectfully, do not.

Fossil Fuels are non-renewable energy that is simple for every nation and person to acquire, where fossil fuels take up 84% of the world's energy, however, it causes environmental and social issues. Generating electricity by burning fossil fuels causes carbon dioxide (CO₂) into the atmosphere, carbon dioxide traps heat, making the earth hotter and produces climate change as well as health problems.

Study shows that Africa consumes up 2-3% of the global CO₂ emissions, this number is small because 592 million people do not have access to electricity, therefore when Africa builds up their use of fossil fuels, it introduces many major environmental and health issues. Additionally, climate change causes air pollution, once air pollution enters a person's body, it brings in numerous health problems. Statistics illustrate that more than 10 million people die from air pollution.

As global temperatures rise, and climate change starts to increase, it is desperate for all nations to switch energy types. Renewable Energy is the only type of energy that can counteract fossil fuels as they significantly reduce carbon emissions. An NREL (National Renewable Energy Laboratory) study was conducted that generating 35% of electricity using wind and solar in the United States would reduce CO₂ emissions by 25-45%. Unfortunately, 3 billion people, or 40% of the world do not have access to renewable energy. The main reason is that not all nations are geographically enabled to

switch to renewable energy. In addition, it is expensive, and most developing countries are unable to obtain renewable energy and its modern technology.

Clean Water

Freshwater is a scarce commodity worldwide. Studies suggest that of the world's 322.5 million cubic miles of ocean, only 4% is freshwater, the other 96% contains salt in its name, saline water. Water systems and access to clean water have been easier to obtain because of technology. However, places with extreme poverty have limited access to clean water. A study has shown that 785 million people do not have access to clean water or can be shown as 1 in 10 people. Human's basic need is not being present for them and technology can address it.

Modern-era technology has contributed to water collection drastically by creating experiments and products to separate the salt from ocean water to make it drinkable and the machines to gather water from the depths of the mountains. However, due to harsh weather, lack of rainfall, and weak agriculture, LDC has limited access to drinkable water.

Health and Hygiene

Hygiene is becoming more important as the COVID-19 pandemic continues. Poverty has also resulted in a lack of hygiene, where people can't buy sanitary products or even face masks. Proper lavatory facilities aren't present for 40% of the world, this causes many health problems and is easily accessible for deadly diseases to enter the body. Without the use of modern technology, the health systems would be crumpled, medicine has advanced substantially and has allowed us to expand human life expectancy and enable cures/vaccines for diseases.

Healthcare, a need that all individuals need to maintain righteous health to prevent diseases and improve quality of life. According to the World Health Organization (WHO), more than half the world lacks access to essential health services, 100 million are still pushed into extreme poverty because of health expenses. WHO has struggled to improve access to medicine for 70 years, WHO reports that more than 2 billion people don't have access to modern medicine/emotional medicine. Even though the technology is present, the main problem is distribution, where medicine is hard to distribute in conflict-stricken areas, where 426 million children live there.

Cancer, Ebola, AIDS, and other diseases have negatively impacted developing countries. They are vulnerable as they have a poor healthcare system, resulting in a very low life expectancy. NGOs and humanitarian organizations such as Alertnet have tried to assist developing nations with their health crisis. However, a deadly virus has been spreading throughout the world since 2019, COVID-19. Technology and science have produced safely produced vaccines for COVID in less than a year. Even so, developing nations won't achieve widespread vaccination coverage until 2023 because the demand is high but the production of the vaccine is less as the top priority are developed countries.

Education

Distance Learning

The COVID-19 pandemic has restricted the daily routine of humanity. With lockdown rules and travel restrictions, jobs losses, and unable to do physical education. Due to the pandemic, all schools had to change to virtual education. This change negatively impacted developing countries or under-funded schools as families can't obtain the technology to go virtually. Two-thirds of the children population or 1.3 billion do not have an internet connection at home, where education is out of reach.

As for the other side where children have an internet connection, the focus of attention has decreased significantly, many children do not attend the class. Children are

struggling during remote learning as it is disengaging making it harder to learn. It causes depression in children due to social isolation, as well as stress and anxiety.

Lack of Education

Despite the pandemic, children have inaccessibility to education. More than 72 million children of primary education age are not in school and 759 million adults are illiterate. Lack of education can be caused by poverty, lack of access, lack of materials in the classroom, denied education due to physical or mental conditions.

The effects that lack of education can bring towards children/adults are poor health, lack of a voice, shorter lifespan, unemployment, exploitation and gender inequality. Due to lack of education, people can't access technology at all or they can't access technology safely.

Legality and Ethics

The implementation of technology in developing countries can negatively impact. Since there are no restrictions on technology, it causes many legal and ethnic problems.

Cybercrimes

Cybercrimes have been present since the start of modern technology and usually are targeted towards developing areas and remote areas as a lack of education is present, making it easier for cybercrimes to continue. Hackers try to attack someone online every 32 seconds, making 2244 cyber incidents every day.

Hacking and Fraud are two of the most common types of cybercrime. The effects are poverty, identity theft, kidnapping and far more crimes. Fraud costs the global economy \$5 trillion in the year 2019 and with the advancement of technology, it causes a negative impact as hacking and fraud can easily attract people. Furthermore, the use of underdeveloped technology can attract hackers.

Companies are vulnerable to cybercrime as technology moves forwards. This occurs because 86% of breaches were financially motivated and 10% were motivated by espionage. This can cause job losses for people and occasionally, the collapse of the company. Studies show that 60% of small companies shut down after 6 months of an attack.

Data Rights and Privacy Issues

Data Rights have been implemented to give people control over their data. The person has the right to move, delete, control their data. They also have the right to know who is collecting it and who has access to their data. Studies show that 84% of people care about their privacy and condemn the world for the creation of data rights.

Nevertheless, many privacy issues occur in the world. They steal data from the rightful owner by hacking or breaching servers of a network that many people use. After that, they sell the data to criminals or the deep web. The data can contain a person's identity, address, name, social security, and other vital information. The Federal Trade Committee (FTC) estimates that more than 9 million identities have been stolen.

Major Parties and Their Views

United Nations Development Programme (UNDP)

The UNDP is known for tackling and achieving the 17 SDGs and driving their agenda towards competition in 2030. Over the recent years, the UNDP has implemented many initiatives that include ICT that can help the development and progress of the SDGs. Not only for the SDGs, the UNDP believes that every human has the right to the internet and views ICT as a major part of society and a basic component of development, not a luxury. Since 1993, the UNDP has connected 45 countries to the internet for the very first time. The UNDP pioneered Mobile Internet Unites computer centers on wheels. This has trained and helped young people in even the most remote places in any nation.

The concept started from Malaysia to Mali but has expanded to 20 different countries. The UNDP has convinced and supported governments and private sector companies in the implementation of computers in schools. Furthermore, the UNDP has proposed many different plans that tackle the issues that affect vulnerable societies negatively.

International Technology Union (ITU)

The ITU is a major party established in 1865 that specializes in facilitating international connectivity in the communications networks and is committed to connecting all the world's people. Their global membership includes 193 Member states as well as some 900 companies, universities and international and regional organizations. The ITU established a sector of its agency that is called the ITU Development Sector (ITU-D), this particular sector strives to spread equitable and affordable access to telecommunication. The main objective is to assist other member states and the UN in the completion of Sustainable Development Goals through the use of any form of ICT.

The ITU proposed many ideas to all 17 SDGs that impact vulnerable societies positively such as, making agricultural practices more data-driven and efficient, ICT-enabled solutions can assist farmers to increase their crop yields and reduce their use of energy, this majorly helps SDG 2: Zero Hunger. Gender Equality or SDG 5, ITU members annually organize International Girls in ICT Day. This is led by ITU and has initiatives to improve women's access to technology, build relevant digital and other skills and help promote female leadership in the technology sector/industry. Another vital idea executed by the ITU is the work to reduce inequality within and between countries, communities and populations by having to allow them to access technology - including those living with disabilities, as well as women and indigenous people, taking on SDG 10: Reduced Inequalities.

Haiti

Haiti is a country that remains among the poorest and most unequal countries in the continent of South America, experts say that it is the least developed country in the world. Many disadvantages occurred in the nation after the devastating setback that was the 2010 earthquake. However, there is great progress, with increases in education, employment and sanitation. Nevertheless, inequality and poverty are still heavily present, with 80% of the population living in poverty. Haiti is one of the least technologically advanced nations in the world with the freedom battles that the nation experiences. It drains their economy, resulting in a shortage of basic facilities such as educational systems, telecommunication, power and electricity, and the internet. Energy is a problem in Haiti's remote areas, where only 11% of the Haitian countryside has access to energy compared with 63% of the country's cities. Sanitation is the key need as the pandemic continues to escalate, but about 16% in rural areas have some sort of access to improved sanitation and 69% of the population has access to an improved water source.

United States of America (USA)

The United States of America is one of the leading nations in technology, with many companies and increased use of technology, it has established a strong digital ecosystem. They have been innovating ideas for the future with a connection to space, finance and society. Establishing goals and objectives has allowed the motivation and progression to increase.

However, the USA lacks cybersecurity. Stolen identity, the United States has the highest amount of stolen identity in the world, where more than 9 million American identities have been stolen each year. Hacking operates in the nation, with a report stating that in the year 2017, 143 million Americans were affected by the hacking, resulting in a loss of \$19.2 billion, this caused many Americans to be homeless and economically disadvantaged. The USA is known for its major companies all across the globe and they shift into the digital world. Nevertheless, many companies are getting hacked, with more

than 200,000 reports per year. Without upgraded cybersecurity, many Americans would lose their identity, jobs and money.

China

The P5 member have rapidly increased their technological advancement over the last two decades. From medical to military, they have been using technology to create different inventions.

However, many problems have arisen from China such as E-Waste. China is the top producer of E-Waste in the world with an average of more than 10 million tonnes created every year. They have been stored in Guiyu in Guangdong Province, which is the location of the largest electronic waste site on earth. With a population of 150,000, they receive more than 15,000 metric tonnes of e-waste every day. Laborers are sitting in the streets of Guiyu to rip out the technology from home appliances to laptops. The roads are filled with wires, laptops and other technology that negatively impacts the population. Reports of high levels of lead in the blood of the children Guiya have been issued. Living in the province demonstrates 6 times more likely to die than any other city in the nation.

Somalia

Gained its independence in 1960, the country of Somalia has been in civil war since 1991. Negatively affecting the country's GDP, poverty and crime rate, it also lacks the technology to give the population clean water, food and sanitation. Despite its advancement in the tech industry, it is still one of the least technologically advanced countries in the world. The civil war has caused many issues like poverty, where 73% of the nation lives in poverty. This prevents them from accessing certain modern technology and basic necessities. Lack of healthcare and modern medicine and an abundance of war results in a life expectancy of 57 years, as well as a child mortality rate of 117 deaths per 1,000 live births or more than 10% of infants, die.

The pandemic has disrupted entire nations' social, economically and political lives. Where it mainly affected people with disabilities, internally displaced people (IDPs), the elderly, and the poor. Modern technology is rare in the nation due to the literacy rate, this resulting in limited access to water, clean sanitation and electricity.

Development of Issue/Timeline

Date	Event	Outcome
May 17, 1865	<u>The International Telecommunication Union (ITU)</u> was created	For a century and a half, the company has been the center of all communication, but in 1865, they used telegraph wires as technology.
1 January 1947	The ITU becomes a UN specialized agency.	The ITU has joined the UN to become a specialized agency that focuses on international and communication technology.
1981	E-Waste starting to grow in developing countries	This negatively impacted the situation as e-waste creates harmful, toxic chemicals that are released into the air, creating many health problems for the people.

1 January 1983	The creation of the internet	The internet allows people to be more globalized and it is a forefront of modern-era technology.
September 2015	The 17 Sustainable Development goal of the 2030 Agenda has been created.	Tackling world issues to improve the world and make a sustainable world for future generations.
December 2015	The Technology Bank for the LEDCs was established by the General Assembly	Providing economically disadvantaged people in LEDCs with certain technology in order to empower many needs.
2017	The partnership of WHO-ITU has launched the eHealth in Africa initiative.	Resulting in using ICTs to allow people to gather better healthcare and to gather information for future medical use.
2018	The Technology Bank became operational for developing countries.	Aiding 45 developing countries with lack of technology in order to improve their economy and societies.

December 2019	COVID-19, a deadly virus has originated in Wuhan, China	Forced jobs and education to remote learning, where developing nations struggle with their lack of technology.
January 2020	The implementation of Digital Strategy made by USAID	Adding many developing countries financially, socially and environmentally
2020	The United Nations Technology Bank, UN Development Programme (UNDP), UN Conference on Trade and Development (UNCTAD) and the World Health Organization (WHO) launched the Tech Access Partnership (TAP) in response to COVID-19.	Positively impacting developing nations as the technology allows them to fight against the pandemic.

Previous Attempts to Solve the Issue

UN Technology Bank

The United Nations Technology Bank for Least Developed Countries is a global organization that is dedicated to enhancing the contribution of science, technology and innovation in the world's least developed countries. The Technology Bank for the LeDCs was established by the General Assembly in December 2015, however, it became operational in 2018 and they now serve 45 LEDCs, headquartered in Gebze, Turkey,

governed by a 13-members council. They are actively engaging with national and international partners to deliver/create programmes and projects which allow society to strengthen science, technology and innovation capacity.

The UN is continuing to assist the technology bank as it is part of their Sustainable Development Goal as stated in their sub-goal of 17.8. The UN Technology Bank is helping developing countries scale local production of health technologies and equipment, responding to COVID-19. They also aid students' education by providing them with the necessary skills, enabling them to go to university. Occasionally, the Technology Bank establishes initiatives cooperating with different universities to allow scholarships for developing countries. This not only gives them access to education but empowering them with the usage of modern-era technology.

Tech Access Partnership

The United Nations Technology Bank partnering with the UN Development Programme (UNDP), UN Conference on Trade and Development (UNCTAD) and the World Health Organization (WHO) launched the Tech Access Partnership (TAP) in 2020. This is a partnership strengthening developing countries' response to COVID-19 and increases access to lifesaving health technologies. Assisting most vulnerable countries and people on external sources of supply of medicine, health technology and other necessary medical goods. TAP helped reduce the movement of goods and services that have accompanied the pandemic. Their major objective is to provide access to modern-era health technology to developing countries to help them for a future pandemic.

USAID Digital Strategy

USAID has initiated a digital strategy to cover the gaps of technology for developing countries. The strategy possesses two core, mutually objective, one of them is to improve humanitarian assistance outcomes through the use of digital technology.

While the second objective states to strengthen the inclusiveness and security of country-level digital ecosystems.

After the implementation of these objectives, USAID has been working with different partners to construct a digital ecosystem for developing nations. Financially, they have been increasing economic activity in Central America by reducing barriers to international trade, using digital systems. The USAID has been working with Central American governments and border agents to reengineer the trade processes, this has terminated downtime and improved coordination, allowing economic development in Central America. They have installed many internet connections to aid the connectivity for the people in developing nations. They have empowered youth to drive change in their communities by funding young entrepreneurs and youth leaders by enabling access to digital innovation. They have been working and funding with M-Kopa, an African energy company to implement inexpensive solar panels with mobile-money platforms to power 300,000 homes in Keya, Tanzania and Uganda. While the technology delivers electricity, it also broadens the reach of digital services for payments, empowering people to be independent.

The USAID has been implementing more and more services to improve its digital ecosystems in developing countries.

Digital Health in Africa

The Digital Health in Africa initiative was created by the ITU and WHO, they have launched a joint partnership to scale up the use of digital technologies that can strengthen public health care services in Africa. It will assist countries in Africa to promote the use of ICTs in the health sector- to improve accessibility, affordability and quality of all health services. Equipping health care working with digital skills and building the digital infrastructure and ecosystem in order to go further with the initiative.

The initiative serves as a key to the achievement of the UN Sustainable Development goals, where SDG 3 is good health and well-being.

The partnership of the ITU and WHO enables countries to improve the collection, processing and distribution of health data and information, resulting in improving patient diagnosis and treatment, especially people who live in rural and remote areas. The initiative was constructed in 2017 and will benefit the continent of Africa over the period of 2018-2030.

Possible Solutions

Education

It seems to be a logical plan to educate them as it can prevent future identity thefts, which can result in poverty, use of credit and unlawfully having access to medical services. By providing them with certain technology, it can assist them to have a rightful and better education. Furthermore, educating them to safely use technology, may include accessing websites and downloading applications from a reliable source to prevent viruses from entering their technology. Similarly, to educate them about cybercrimes, hackers and frauds and ways to evade them.

Remote Learning

The pandemic has set back schools to remote learning, where children have to be virtual and learn through a screen. By supplying computers and electronics needed for children or schools for remote learning, it supports children as 1.8 million children do not have access to laptops. Two-thirds of the children population do not have access to an adequate internet connection. By providing a satellite telecommunication connection throughout remote areas, it will increase remote learning for the better, empower them to have a right to education.

Children in conflict-stricken areas are often buried in their homes as coming outside can be a danger for them. By providing them with laptops and the internet, they can virtually learn from many schools abroad or locally. This will allow them to have a right to education without endangering them.

Renewable Energy

Renewable Energy is a safe, reliable way to use energy for household appliances and other energy necessities. Renewable Energy is an alternative to traditional fossil fuels. Fossil Fuels produce CO₂, which destroys the environment and its species, it also affects human health as air pollution can cause numerous respiratory diseases. Renewable Energy is also infinite, unlike fossil fuels.

Many developing nations are in the regions of Asia and Africa. Geographically enabled to hold one type of renewable energy. For instance, the Saharan desert covers up to 10 countries, Algeria, Chad, Egypt, Libya, Mali, Mauritania, Morocco, Niger, Sudan and Tunisia. The average temperature of the desert is over 30°C (86°F), meaning the implementation of solar power in some parts of the desert can give an economical advantage towards the surrounding member energy, as the energy harvested from the sun can be implemented in household energy. There are multiple types of renewable energy that can be utilized in an appropriate geographical location. Using renewable energy can positively impact the environment, as CO₂ emissions will decrease, resulting in a decline of natural disasters and heated weather.

Health

Health is at the top of every person's need, it has to be maintained well otherwise it can result in devastating outcomes. ICTs have impacted healthcare significantly as the record of patients and their history can give doctors a better diagnosis, meaning better treatments.

When it comes to developing nations, but implementing healthcare facilities that can be funded by the UN annually, especially in remote areas where lack of technology and healthcare is present. By gathering medical information on the patient and establishing a world-healthcare service, where member nations can support and aid the developing nation's population.

Modern Medicine allows people to extend their life expectancy, it treats diseases. However, many developing nations do not have access to modern medicine. The implementation of modern-medicine in developing nations can result in extended life expectancy, mortality rates and healthcare.

The implementation of more medical schools and medical professors in developing nations can allow children and adolescents to choose a career path of being a doctor/nurse. This can allow them to help their own population, decrease poverty rates and decrease lack of education in the nation.

Research

Technology has assisted scientists in researching many treatments for deadly diseases to create medicine. However, due to limited funding, many projects have been demolished and the research being abandoned. By researching and developing, many inventions can result in treatments for physical and mentally disabilities such as robotic arms, glasses that vibrate near objects which are used for blind people. The UN can collaborate with different member nations and the WHO to construct and develop multiple inventions that can positively impact people with disabilities's lives.

Work Cited

Aid, Development. DevelopmentAid, DevelopmentAid,
www.developmentaid.org/#!/news-stream/post/84943/highest-poverty-rates-in-africa.
Accessed 11th Aug 2021

Bank, World. “Living Conditions in Haiti's CAPITAL Improve, but Rural Communities Remain Very Poor.” World Bank, World Bank, 11 July 2014,
www.worldbank.org/en/news/feature/2014/07/11/while-living-conditions-in-port-au-prince-are-improving-haiti-countryside-remains-very-poor. Accessed 16th Aug 2021

Borgen Project “Internet Access in Developing Countries: A Tool for Sustainability.” The Borgen Project, Borgen Project , 16 Dec. 2019,
borgenproject.org/internet-access-in-developing-countries-a-tool-for-sustainability/.
Accessed 11th Aug 2021

Bureau, OB. “NCERT Survey: NEARLY 27% Students Cannot Attend Online Classes.” Odisha Bytes, Odisha Bytes, 20 Aug. 2020,
odishabytes.com/ncert-survey-nearly-27-students-cannot-attend-online-classes/.
Accessed 15th Aug 2021

Business News Wales, and HR and People. “Technology Dominates World's Fastest-Growing COMPANIES, Study Says.” Business News Wales, Technology News Wales, 22 Oct. 2020,
businessnewswales.com/technology-dominates-holding-21-3-of-the-worlds-fastest-growing-companies/. Accessed 8th Aug 2021

Castagna, Rich, and Stephen J. Bigelow. “What Is Information Technology?”

SearchDataCenter, TechTarget, 5 Aug. 2021,
searchdatacenter.techtarget.com/definition/IT. Accessed 8th Aug 2021

CDC. “Global Wash Fast Facts.” Centers for Disease Control and Prevention, Centers for Disease Control and Prevention, 1 Apr. 2021,

www.cdc.gov/healthywater/global/wash_statistics.html. Accessed 12th Aug 2021

Condliffe, Jamie. “Hackers Stole \$172 Billion from People in 2017.” MIT Technology Review, MIT Technology Review, 23 Jan. 2018,

www.technologyreview.com/2018/01/23/146077/hackers-stole-172-billion-from-people-in-2017/. Accessed 20th Aug 2021

Dakota, North. “Definition of Information Technology.” Definition of Information Technology | North Dakota ITD, North Dakota ,

www.nd.gov/itd/about-us/definition-information-technology. Accessed 8th Aug 2021

Fakhoury , Rania. “Digital Government Isn't Working in the Developing World. Here's Why.” The Conversation, The Conversation , 16 Sept. 2016,

theconversation.com/digital-government-isnt-working-in-the-developing-world-heres-why-94737. Accessed 14th Aug 2021

Global, Crowe. “Fraud Costs the Global Economy over Us\$5 Trillion.” Crowe Global, Crowe Global , 7 Dec. 2019,

crowe.com/global/news/fraud-costs-the-global-economy-over-us\$5-trillion. Accessed 15th Aug 2021

Humanium. “Right to Education : Situation around the World.” Humanium, Humanium, 22 Feb. 2018, www.humanium.org/en/right-to-education/. Accessed 15th Aug 2021

ITU. “About International Telecommunication Union (ITU).” ITU, ITU,

www.itu.int/en/about/Pages/default.aspx. Accessed 16th Aug 2021

ITU. "EHealth Africa Initiative." *ITU*, ITU, www.itu.int/en/ITU-D/ICT-Applications/Pages/eHealth-africa-initiative.aspx. Accessed 20th Aug 2021

Manager, Data Privacy. "100 Data Privacy and Data SECURITY STATISTICS." Data Privacy Manager, Data Privacy Manager, 20 July 2021, dataprivacymanager.net/100-data-privacy-and-data-security-statistics-for-2020/. Accessed 17th Aug 2021

Museum, Crime. "Identity Theft." Crime Museum, Crime Museum , 13 Aug. 2021, www.crimemuseum.org/crime-library/silent-crimes/identity-theft/. Accessed 17th Aug 2021

News, ITU. "ICTs to Achieve the United Nations Sustainable Development Goals." ITU News, ITU News, 30 Oct. 2018, news.itu.int/icts-united-nations-sustainable-development-goals/. Accessed 11th Aug 2021

Parameswaran, Siva. "Toxic Waste 'Major Global Threat'." BBC News, BBC, 20 Nov. 2013, www.bbc.com/news/science-environment-24994209. Accessed 14th Aug 2021

Project, Borgen. "E-Waste in Developing Countries: Treasure to Trash?" BORGEN, Borgen Project, 13 Nov. 2020, www.borgenmagazine.com/e-waste-developing-countries/. Accessed 13th aug 2021

Project, Borgen. "The Vicious Cycle between Poor Hygiene and Poverty." BORGEN, Borgen , 4 Dec. 2017, www.borgenmagazine.com/vicious-cycle-poor-hygiene-and-poverty/. Accessed 12th Aug 2021

Rapier, Robert. "Fossil Fuels Still Supply 84 Percent of World Energy - and Other Eye Openers from Bp's Annual Review." *Forbes*, Forbes Magazine, 25 June 2020,

www.forbes.com/sites/rpapier/2020/06/20/bp-review-new-highs-in-global-energy-consumption-and-carbon-emissions-in-2019/?sh=3002d2b666a1. Accessed 13th Aug 2021

Ritchie, Hannah, and Max Roser. "Access to Energy." Our World in Data, Our World In Data, 28 Nov. 2020, ourworldindata.org/energy-access. Accessed 11th Aug 2021

Sobers, Rob. "134 Cybersecurity Statistics and Trends For 2021: Varonis." Inside Out Security, Inside Out Security , 17 Mar. 2021, www.varonis.com/blog/cybersecurity-statistics/. Accessed 16th Aug 2021

Tierney, Susan, and Lori Bird. "Setting the Record Straight about Renewable Energy." World Resources Institute, World Resources Institute, 12 May 2020, www.wri.org/insights/setting-record-straight-about-renewable-energy.

UNESCO. "Global Action Programme on Education for Sustainable DEVELOPMENT (2015-2019)." UNESCO, UNESCO, 12 Mar. 2020, en.unesco.org/globalactionprogrammeeducation. Accessed 9th Aug 2021

UNESCO. "UNESCO Report on Inclusion in Education Shows 40% of Poorest Countries Did Not Provide Specific Support to Disadvantaged Learners During COVID-19 Crisis." UNESCO, UNESCO, 7 July 2020, en.unesco.org/news/unesco-report-inclusion-education-shows-40-poorest-countries-did-not-provide-specific-support-0. Accessed 9th Aug 2021

UNICEF. "7 Fast Facts about Toilets." UNICEF, UNICEF, 19 Nov. 2018, www.unicef.org/stories/7-fast-facts-about-toilets. Accessed 11th Aug 2021

UNICEF. "Two Thirds of the World's School-Age Children Have No Internet Access at Home, NEW Unicef-Itu Report Says." UNICEF, UNICEF, 30 Nov. 2020, www.unicef.org/press-releases/two-thirds-worlds-school-age-children-have-no-internet-access-home-new-unicef-itu. Accessed 14th Aug 2021

United Nations. “Current Activities | Technology Bank for the Least Developed Countries.” United Nations, United Nations, www.un.org/technologybank/content/current-activities. 18th Aug 2021

United Nations. “Tech Access Partnership for LDCS amid COVID-19 | Ldc Portal.” United Nations, United Nations, 2021, www.un.org/ldcportal/tech-access-partnership-for-ldcs-amid-covid-19/. Accessed 18th Aug 2021

United Nations. “Technology Bank for the Least Developed COUNTRIES |.” United Nations, United Nations, www.un.org/technologybank/. Accessed 19th Aug 2021

University , Ohio. “How Technology Is Providing Solutions for Clean Water.” Ohio University, Ohio University , 2 Mar. 2021, onlinemasters.ohio.edu/blog/how-technology-is-providing-solutions-for-clean-water/. Accessed 14th Aug 2021

USAID. “USAID's Digital Strategy Overview.” U.S. Agency for International Development, USAID, May 2019, www.usaid.gov/usaid-digital-strategy. Accessed 19th Aug 2021

Watson, Ivan. “China: The Electronic WASTEBASKET of the World.” *CNN*, Cable News Network, 31 May 2013, edition.cnn.com/2013/05/30/world/asia/china-electronic-waste-e-waste/index.html. Accessed 20th Aug 2021

WHO “World Bank And WHO: Half the World Lacks Access to Essential Health Services, 100 Million Still Pushed into Extreme Poverty Because of Health Expenses.” World Health Organization, World Health Organization, 13 Dec. 2017, www.who.int/news/item/13-12-2017-world-bank-and-who-half-the-world-lacks-access-to-essential-health-services-100-million-still-pushed-into-extreme-poverty-because-of-health-expenses. Accessed 14th Aug 2021

WHO. “More People Have Access to Electricity than Ever before, but World Is Falling Short of Sustainable Energy Goals.” World Health Organization, World Health Organization, 21 May 2019, www.who.int/news/item/21-05-2019-more-people-have-access-to-electricity-than-ever-before-but-world-is-falling-short-of-sustainable-energy-goals. Accessed 13th Aug 2021

Appendix

- I. Digital Trends in Africa 2021, https://www.itu.int/dms_pub/itu-d/opb/ind/D-IND-DIG_TRENDS_AFR.01-2021-PDF-E.pdf, Accessed 19th Aug 2021
- II. Role of UNDP in information and communication technology for development, <http://web.undp.org/execbrd/pdf/DP2001CRP8.PDF>, Accessed 17th Aug 2021
- III. Access to medicines: making market forces serve the poor, <https://www.who.int/publications/10-year-review/chapter-medicines.pdf>, Accessed 15th Aug 2021
- IV. DIGITAL STRATEGY, https://www.usaid.gov/sites/default/files/documents/USAID_Digital_Strategy.pdf, Accessed 18th Aug 2021
- V. An Introduction to the UN Technology Bank for the Least Developed Countries, <https://www.southcentre.int/wp-content/uploads/2021/05/SouthViews-Gombe.pdf>, Accessed 18th Aug 2021

