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Kaohsiung Artificial Intelligence Model United Nations I

Committee: Economic and Social Council (ECOSOC)

Topic Number: (0301) The impact of the digital/AI divide on income inequality.

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Introduction

In the age of rapid technological advancements, Artificial Intelligence (AI) and other means of digital infrastructure have taken a huge responsibility, transforming forces within global economies. With that being said, the integration of such technologies is not yet universally accessible, with some nations being left behind. This has led to a widening disparity between those who can take advantage of artificial intelligence and those who are excluded from such benefits. This phenomenon is generally known as the digital or AI divide. The divide hinders populations and/ or marginalized communities within more developed nations, and the disproportionate risks exacerbate existing inequalities.

The increasing control that AI has over our community continues to grasp the way we learn, the healthcare departments, and even job markets, limited access to digital tools poses an obstacle to upward advancements. This disparity can not only perpetuate vicious cycles of poverty and unemployment but also restrict the socioeconomic growth of populations as a whole. The responsibility of the Economic and Social Council (ECOSOC) is to promote higher standards of living and economic and social progress, which directly correlates with the issues discussed at hand.



Background Information

Unequal Development and the Growth of AI

AI research and development remain highly unequal across different countries, most notably the significant difference between Northern and Southern countries. The United States, for example, has dominated artificial intelligence research, accounting for 30% of AI research publications. Similarly, the United Kingdom, Germany, Japan, and other countries also strongly produce research papers on AI. Meanwhile, Africa, South American, and most Asian countries remain inadequate towards AI research.

Gaining ground in AI research directly reflects the rapidly growing divergence between developing and advanced economies. AI productivity gain captured by wealthy nations and major tech firms creates a few global superstar companies. Improvements in AI productivity tend to increase incomes, thereby further increasing the income gap between developing and advanced countries.

Limiting Job Markets

According to Goldman Sachs, Artificial Intelligence is expected to replace around 300 million full-time jobs, replacing a quarter of work tasks in the US and Europe. In turn, new jobs and productivity are expected to increase, but at the same time, many are “losing their jobs to automation.” IN sectors where AI automation significantly reduces cost, businesses are now choosing to reduce their workforce, leading to job losses and lower wages. In the near term, an AI-driven productivity boost could be skewed towards high-income workers. In the long term, AI-driven labor automation could increase the share of income going to capital at the expense of the labor share.

Additionally, as AI replaces humans in the workforce, job losses happen through the process of businesses starting to only recognize those with even higher skills. The low-skilled workers may be removed from the possible selection of employees and have an even harder time looking for new jobs to support their income and financial stability. This can also be understood as SBTC, Skill-Biased Technology Change.

Definition of Key Terms

Digital Divide



The digital divide refers to the gap between individuals, households, businesses, and geographic areas at different socio-economic levels in terms of their opportunities to access information and communication technologies (ICTs) and their use of the internet for a wide variety of activities. It includes disparities in infrastructure, digital literacy, internet speed, and affordability, particularly affecting rural and marginalized populations.

AI (Artificial Intelligence)

Artificial Intelligence, also known as AI. It can be either a system in a technology, such as ChatGPT, Siri, facial recognition, or the technology itself, like robots and autonomous driving. These AIs contain a variety of advanced functions that can be used to analyze data, translate verbal and non-verbal languages, communicate, etc. In addition, AIs are created to perform tasks that were originally required of human intelligence to accomplish. Through time, AI has also been continuously developed and is a crucial and common part of the world we live in today.

Income Inequality

Income inequality is the unequal distribution of household or individual income across various participants in an economy. It is commonly measured by metrics such as the Gini coefficient or income quintile share ratio. High levels of income inequality can lead to social unrest, hinder economic growth, and restrict upward mobility.

Digital Literacy

Digital literacy is the ability to use digital technologies, communication tools, and networks to access, manage, integrate, evaluate, and create information ethically and effectively. It is a foundational skill for participating in the digital economy and navigating an increasingly AI-integrated world.

Technological Unemployment

Technological unemployment occurs when technological advancement leads to job loss, especially in industries where automation, robotics, or AI systems can replace human labor. While technology can create new forms of employment, the displacement of workers without adequate retraining exacerbates socioeconomic divides.

Sustainable Development Goals (SDGs)



There are many sustainable development goals that connect to the topic of sustainable development of technologies and AI within the realm of climate change.

Sustainable Development Goal number 12 is about ensuring sustainable consumption and production. A sustainable way of developing AI can be through waste reduction or management, meaning the ability to reuse or restore valuable materials and components of AI and also minimizing the use of hazardous materials. Sustainable Development Goal number 13 also connects with the issue because while AI leaves its own carbon footprints, there is also the ability to create AI through innovative solutions in order to potentially accelerate climate actions.

Sustainable Development Goal number 7 targets the access of sustainable energy which ties with sustainable technologies as there are possibilities of powering AI data with renewable energy and eliminating the environmental impacts caused by an AI technologies' full lifecycle. Overall, SDGs intertwine closely with the usage of AI under the realm of climate change, as one of the most important issues currently at hand.

Key Issues

Disproportionate Access to Foundational Digital Infrastructure

At the root of the digital divide is a clear global imbalance in access to physical infrastructure, including reliable electricity, broadband, mobile networks, and affordable internet services. While this issue is often discussed in terms of development, a closer look shows it is not just about outdated infrastructure; it is a result of unequal global power structures, trade imbalances, and the neglect of rural and indigenous communities in national investment plans. For instance, multinational telecommunications companies often overlook low-income areas because they see them as unprofitable, which reinforces systemic exclusion. Furthermore, data from the World Bank reveals that only 35% of people in the least developed countries have basic internet access compared to 87% in high-income nations. This digital exclusion causes income inequality by blocking access to remote education, job platforms, and digital finance. It also reflects inequality, as poorer populations do not have the buying power to create demand for commercial investment.

AI Development that Reflects and Reinforces Global Biases



Most AI systems today are designed, trained, and used by a small part of the global population, mainly developers and companies in the Global North. Due to the unequal representation of the Global South, there have been concerns about misrepresentation over AI's design face where imported algorithms make decisions in sectors such as education, economics, or finance, without considering local landscapes or political contexts. This leads to the reinforcement of existing cultural, racial, and socioeconomic biases. For example, predictive AI used for credit scoring may label informal workers in developing economies as “high risk” simply because they lack a formal financial history. Similarly, generative AI models trained mostly in English and Eurocentric settings have limited usefulness for people who speak other languages. This situation both causes and highlights inequality: those without a say in AI systems find themselves further marginalized by their outputs, widening socio-economic gaps.

Data Colonialism and Unequal Value Extraction

While many discussions about the digital divide focus on access and usage, a more troubling issue is the global imbalance in data ownership and value extraction. Low- and middle-income countries often act as data sources for AI development, where user data is gathered through mobile apps or digital services. However, the value created from this data—through targeted advertising, AI training, or predictive modeling—usually gets monetized elsewhere with little reinvestment in the original communities. This situation, sometimes referred to as “data colonialism,” follows historic patterns of resource extraction seen during imperialism but in a modern tech context. It worsens income inequality by concentrating digital wealth and AI innovation in leading tech economies, leaving data-generating countries with few benefits or bargaining power.

Major Parties Involved

The United States of America (USA)

Currently the US is a global leader in the technological field, home to leading AI companies such as Meta, Open AI, Google and Microsoft. The US promotes nation- wide internet access, ensured by the USAID's “Digital Connectivity and Cyber Security Partnership,” whilst facing backlash for monopolizing AI patents and enforcing bias programming. The influence of AI on the US is becoming increasingly prevalent, paralleled by the increasing deployment rates from AI taking over human jobs.

The People's Republic of China (PRC)



China is also one of the world's largest AI superpowers. While the US currently heads China, China's strategic investments and vast data resources puts it as a strong contender. However, there have been global concerns raised about censorship and violations of privacy. China has enabled various developing nations to access lower cost infrastructure through its "New Generation Artificial Intelligence Development Plan."

India

India is in a unique position as it is a nation that is not only home to the world's most populous democracy and rapidly digitizing economy but it also faces severe internal digital inequality in its rural and low income areas. India is an up and coming technologically advancing hub and is fostering affordable digital innovations, yet 63% of India's population is not digitally literate. Despite this, government programs such as "Digital India" aims to increase the percent of the population that is digitally literate, and integrate AI into agricultural sectors, healthcare and education. India advocates for the Global South, supporting the approach for international cooperation to ensure equitable access to digital media and stands with the Global South on their approach to AI governance.

International Telecommunication Union (ITU)

The ITU is a specialized sector of the United Nations, with the goal to bridge the digital divide through international collaboration. The ITU has set global standards and tried to help those in rural and underserved communities by requesting aid from partnerships to promote universal access to the internet. They have created frameworks such as "Connect 2030 Agenda" to promote such standards. The ITU has become an instrumental agency to help developing nations gain affordable and accessible internet access, paving the way to digital inclusion.

United Nations Educational, Scientific and Cultural Organization (UNESCO)

UNESCO's main goal is to reduce digital inequality through the creation of digital literacy programs to reduce the disparity of digital inequality. Additionally UNESCO seeks to promote ethical use of AI as it has launched the "Global Education Coalition," as a response to Covid-19, aimed to address the barriers of online learning for students. Additionally UNESCO has played a significant role in



advocating for the publishing of the Recommendation on the Ethics of Artificial Intelligence. UNESCO stands for education that is inclusive and central to the digital world.

Timeline

When referring to specific dates, please use the following format: Month Day, Year (e.g., June 15, 2025). Each date mentioned should be accompanied by a description of the event to provide context within the report. (Please delete this paragraph when completed.)

Date	Description of event
December, 2015	The United Nations General Assembly adopts the WSIS+ 10 Outcome document, which stresses the need for digital inclusivity, equitable access to information and means of communication through (ITCS), and discusses the urgency to reach the Sustainable Development Goals (SDGs).
July 2017	China has introduced its New Generation Artificial Intelligence Development Plan, laying out an ambitious plan to become the world's leading AI power by 2030. This action has sparked a global competition for AI leadership and revealed the growing gap in AI research, infrastructure, and computing power between developed and developing countries. While the plan has encouraged innovation, it has also widened the divide between nations with advanced digital systems and those still grappling with basic connectivity. This situation deepens structural inequality on the global stage.
March 2020	In response to the COVID-19 pandemic, UNESCO created the Global Education Coalition to support ongoing learning during widespread school closures. The coalition's efforts showed how deeply digital exclusion affects income inequality. Students in low-income and rural areas, especially girls, faced greater challenges in accessing remote learning due to a lack of devices, internet access, or digital skills.



This moment sparked urgent discussions about how digital access connects to educational and economic opportunities.

November 2021

UNESCO adopted the Recommendation on the Ethics of Artificial Intelligence, the first global framework for the ethical use of AI. Supported by over 190 countries, the recommendation emphasizes the need to avoid letting AI increase inequality through biased algorithms, inaccessible technologies, or exploitative data practices. It calls for inclusive policymaking, fair data management, and global collaboration to ensure that AI benefits all societies, not just the more technologically advanced ones.

Relevant UN Resolutions and Treaties

- Promotion of equitable and inclusive access to digital technologies for sustainable development, 21 December 2020 **A/RES/75/202**

Emphasizes the significance of diminishing the digital divide and ensuring that all countries, more importantly, the developing nations, have access to reliable internet. Calls on member states to support a universal digital infrastructure, which addresses the inequality.

- ICTs for sustainable development, 19 December 2019 **A/RES/74/19**

Encourages member states to bridge technological gaps through international collaboration, investment and communication. Emphasizes the role of information in ICTs to achieve the Sustainable Development Goals (SDGs)

- The promotion, protection and enjoyment of human rights on the Internet, 27 June 2016 **A/HRC/32/L.20**

Declares internet access and the rights of expression online and freedom and rights to information online, stresses equal participation of all nations in modern society, and reaffirms the significance of closing digital gaps.



Previous Attempts to Resolve the Issue

International Telecommunication Union (ITU)'s Connect 2030 Agenda, (2018)

Created to bridge the income divide and reduce inequality, wanted to promote more inclusivity and foster international digital literacy. Aimed to target Less economically developed countries (LEDs). The ITU collaborated with governments, telecom companies, and various NGOs to invest in digital infrastructure within underprivileged and underserved regions.

The initiative did see some success leading to expansion of internet access, however it was not successful in all nations due to inconsistent policy coordination and some areas lacked education to use AI. The main focus being connection ignored broader systems of affordability and digital skills training that come with inconsistent access to education. As a result, while the internet improved in some areas, the most remote and poorest areas continued to lack reliable and affordable access to digital technology.

UNESCO Global Education Coalition

Another attempt was the UNESCO Global Education Coalition that was formed as a response to the global pandemic in 2020, Covid -19. During this time school closures led to education shifting to online, which created a demand for technological devices. This shift threatened to widen educational inequality, particularly in low-income regions or marginalized communities within wealthier populations, so UNESCO coordinated with tech firms such as Google and Microsoft, NGOs and national ministries of education to offer access to online learning devices and solutions.

While this did make progress in educational disruption, it mostly helped the middle income nations. However, it exposed deeper digital inequalities, for example, in areas with weak internet and inconsistent sources of electricity many students were left behind especially girls. Despite the concerns, this initiative poses as a good starting point for global digital inclusion in the education sector of the UN.

Possible Solutions

Multilateral AI and Digital Infrastructure Investment Framework



Rather than isolated schemes, a coordinated multilateral framework could be formed under the joint leadership of the United Nations Development Programme (UNDP), World Bank, and the International Telecommunication Union (ITU). This framework would use a model based on mixed financing, combining public funding, concessional loans, and a private sector to support long term infrastructure development in regions lacking digital access.

In areas that are chosen to be targeted, the investments would focus on broadband expansion as well as rollouts of 4G and 5G to optimize internet access as well as for local centers, undersea cables, community IT hubs, providing access to digital education and open- source of AI platforms. Participating countries would need to submit national digital inclusion strategies that support and meet the SDG targets. A central monitoring system would access and be able to monitor each country's progress based on equity related criteria, such as rural penetration rates and affordability thresholds, ensuring accountability of impact.

In order to prevent debt traps, the framework has to prioritize capacity building and technology transfer universal sizes that fits all infrastructure imports. This will help the Global South nations, giving them the ability to produce and regulate freely, instead of just being consumers of foreign AI.

Regional AI literacy, Capacity Building, Labor Mobility Hubs

To reduce the income disparity, ECOSOC could potentially advocate for the creation of a Regional Digital Capacity Hub, by collaboration with organizations such as UNESCO, ILO, or regional economic hubs such as the African Union (AU) or the European Union (EU). These hubs would provide training programs, offering AI basics, digital literacy, and data ethics customized to fit local job markets. These centers would also offer job placement services leading to effective training. This ensures that the training is practical and directly linked to income generation.

To address structural exclusion, the programs will prioritize marginalized groups such as women, displaced populations and the indigenous populations. This would involve gender sensitive



curricula and inclusive teaching methods. This approach would allow for digital progress without reinforcing existing social hierarchies.

Public Wifi Ecosystem and Community Owned Connectivity Models

Instead of random hotspots, governments should create nationwide, (including rural areas) public Wi-Fi ecosystems centered in essential shared spaces like schools, public transportation, community health centers, and refugee camps. These efforts could benefit from global technical assistance funds managed by the ITU and Internet Society, using models like “project Isizwe” in South Africa and “NYC mesh” in the USA and inspiration.

In infrastructurally “poor” areas wireless cooperatives would be implemented and funded by government subsidies and legal protections, allowing local populations to manage, maintain and democratically govern their own infrastructure, this provides them with more power through digital agency and reduces dependency on monopolistic telecom providers.

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