The Hague International Model United Nations

Issue: The use of Artificial Intelligence in order to reduce the social, digital, and economic divides

Student Officer: Olivia Kim

Position: Deputy President

Introduction

Artificial Intelligence (AI) has revolutionised modern society, heavily impacting various sectors from health care to education, and shaping today's economies. It is apparent that the global economy is rapidly digitalising. It is estimated that more than two-thirds of new value created over the next decade "will come from digitally enabled platforms (World Economic Forum). At the same time, AI is infiltrating every industry. AI thus holds the clear transformative potential to address the world's most critical challenges, including the divides and inequalities that communities face based on access to resources, technology, and economic opportunities. By leveraging AI properly, nations can progress in reducing social, digital, and economic divides that are experienced.

However, this potential is not without its challenges. Inequalities in access to AI itself can deepen the very divides they aim to bridge. Accelerated advances in technology can greatly help improve societies and economies, but multistakeholder coordination and governance to manage these advances – with their substantial benefits and significant risks – are essential. Without addressing the potential risks, AI can leave already vulnerable populations further behind.

This issue is significant as it pertains to the UN Sustainable Development Goals (SDGs), most especially SDG 10, Reduced Inequalities, and SDG 9, Industry, Innovation, and Infrastructure (United Nations "UN SDGs"). Addressing the issue calls for international collaboration to create policies and frameworks that promote equitable AI use, ensuring that the potential benefits to reduce divides reach all communities.

Definition of Key Terms

Artificial Intelligence (AI)

Artificial intelligence (AI) is technology that enables computers and machines to simulate human learning, comprehension, problem-solving, decision-making, creativity and autonomy (IBM). AI applications such as machine learning, natural language processing, and computer vision are widely used in fields ranging from autonomous vehicles to customer service.

Information Age

The Information Age is the idea that access to and control of information is the defining characteristic of this current era in human civilisation. Essentially, it refers to the present as a time in which information has become a commodity expected to be quickly and widely disseminated. It is also commonly referred to as the Computer Age, the Digital Age and the Media Age.

Social Divide

Social divide is a that refers to the inequalities and differences between social groups in a society. These inequalities can relate to opportunities, advantages, and other aspects of life. Social divisions are often considered unjust and can have a significant impact on individuals and society (Sage Knowledge). Some examples of social divisions include race/ethnicity, gender, sexuality, generation, and social class.

Digital Divide

The digital divide is the unequal access to technology, including smartphones, tablets, laptops, and the internet as a whole. In the Information Age, people without access to the Internet and other technology are at a disadvantage, particularly when finding jobs, shopping, and learning. Such people are also less able to connect with others. Ultimately, it is the gap between those who have access to technology, the internet, and digital literacy and those who do not (NC Broadband).

Economic Divide (Economic Inequality)

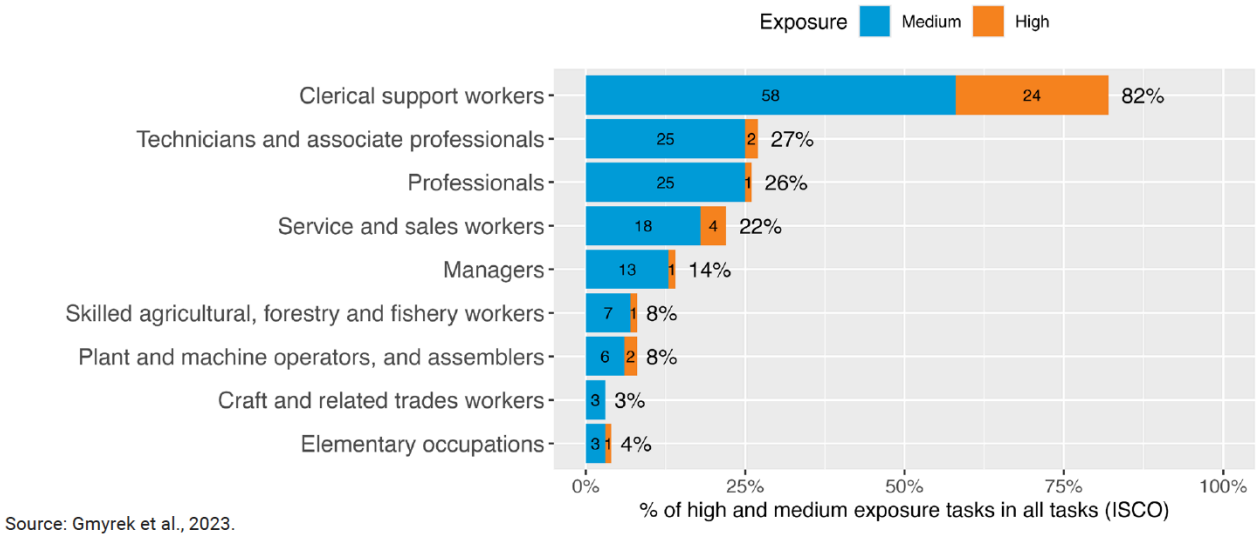
Economic divide refers to the disparities in income, wealth, and opportunity between different groups in society. Economic divide can affect a variety of aspects of society, including health and social problems, social cohesion, upward mobility, democratic backsliding, migration, economic growth, and health crises (American Psychological Association). Forbes counted a record 2,781 billionaires in the world as of 2024 (Forbes) Meanwhile, the World Bank estimates that more than 700 million people globally are living on less than $2.15 per day (World Bank Group).

Background Information

The roots of social, digital, and economic divides are deeply rooted in systemic inequalities such as colonial histories, underdeveloped infrastructures, and economic policies that prioritize profit over inclusivity. These divides are interconnected and interdependent; for example, individuals in

low-income regions often lack access to the internet (digital divide), which limits their access to education and employment opportunities (economic divide) and deepens social isolation.

Figure 1: Tasks with Medium and High-Level Exposure to Generative AI Technology by Major Occupational Group



Source: Gmyrek et al., 2023.

AI offers potential solutions to these challenges. In education, AI-powered tools like adaptive learning platforms can deliver personalized instruction tailored to individual needs, helping to address disparities in educational quality. In healthcare, AI can analyze patient data to improve diagnostic accuracy and resource allocation, even in resource-scarce settings. Economically, AI-driven automation and analytics can empower small businesses by providing tools to optimize operations and reach new markets. The digital economy brings enormous opportunities, but also challenges. Nearly 2.7 billion people worldwide lack access to the internet (International Telecommunication Union). Digital technologies have the potential to enable new value for everyone, but their acceleration also risks further inequality and exclusion, including an unequal concentration of resources and instability.

Digital Inclusion and Transformative Learning

Specific technologies like Carnegie Learning's MATHia demonstrate the practical application of AI in personalized learning, dynamically adjusting mathematical content based on individual student performance (MATHia). These platforms go beyond traditional educational approaches by creating adaptive learning experiences that respond in real-time to a student's cognitive patterns and learning preferences.

Economic Empowerment and Innovative Opportunities

The integration of blockchain and AI technologies opens avenues for cross-border economic participation. Decentralized financial platforms powered by intelligent algorithms can provide micro-lending solutions with sophisticated risk assessment capabilities, effectively democratizing access to financial resources for marginalized communities. Platforms like Google's Digital Coaches program in emerging markets showcase how AI can provide targeted business development support. These tools offer personalized business plan generation, market trend analysis, and strategic recommendations that can transform micro-entrepreneurship in regions with limited economic infrastructure and support. Moreover, advanced skill-matching algorithms can analyze individual capabilities, local and global market trends, and potential career pathways, providing personalized guidance that can lift individuals out of economic marginalization.

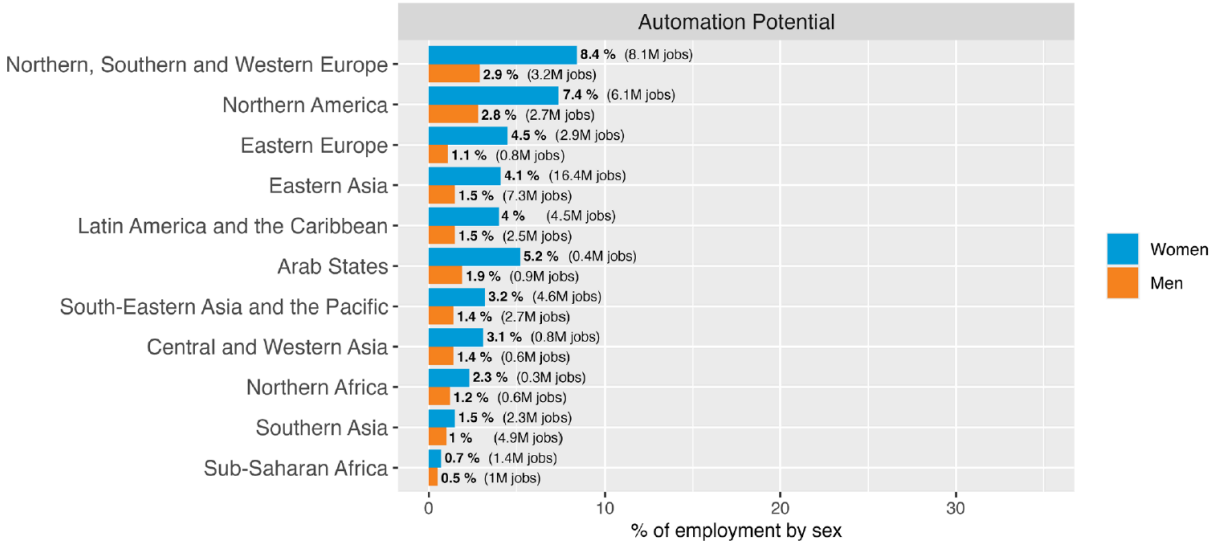
Figure 2: Value Chain of AI

Note: Orange represents the activities that have lower value-added.
Source: Authors' elaboration.

Technological Challenges and Ethical Considerations

Even with its immense potential and benefits, the implementation of AI technologies requires a careful approach to mitigate potential risks. This includes diverse training data collection, implementing bias detection algorithms, and ensuring inclusive representation in AI development teams. Transparent model development proves crucial in addressing inherent algorithmic biases that could perpetuate existing social inequalities. Data privacy is a critical concern, necessitating robust frameworks including end-to-end encryption, decentralized data storage, and comprehensive user consent mechanisms. The development of global governance standards and interdisciplinary teams is essential in creating ethical AI solutions that respect cultural contexts and individual privacy rights.

Figure 3: Potential Exposure to Automation by Global Sub-Region



Major Countries and Organizations Involved

UN and International Involvement: The United Nations (UN) has been a critical platform in addressing the global challenges and opportunities presented by artificial intelligence. The UN has increasingly focused on developing comprehensive governance frameworks that balance technological innovation with fundamental human values. The 2023 joint session of the High-Level Committees on Programmes (HLCP) and Management (HLCM) marked a pivotal moment in this approach, explicitly acknowledging AI's far-reaching impacts across multiple domains including peace and security, sustainable development, human rights, and humanitarian action. Some reports, task forces, and policy briefs include:

- Report of the High-level Committee on Programmes and the High-level Committee on Management joint session on the use and governance of artificial intelligence and related frontier technologies, 4 October 2023 **(CEB20237)**
- UN 2.0 Policy Bried, September 2023, **(Policy Brief 11)**
- Task Force to Develop a System-wide Normative and Operational Framework on the use of AI in the UN System, 11 January 2024 **(HCM)**

The United States of America (USA)

The U.S. emphasizes innovation through initiatives like the National AI Initiative Act (2020), which fosters research and equitable access. Government agencies and research institutions collaborate extensively, creating an environment for AI development that seeks to balance innovation with social responsibility. The government mandates an “Executive Order on the Safe, Secure, and Trustworthy Development and Use of Artificial Intelligence” which outlines the responsible use of AI (The White House). Despite its leadership in AI, disparities in rural internet access and education quality highlight internal challenges.

People's Republic of China (PRC)

China has emerged as a global leader in AI, driven by government-led initiatives such as the "New Generation AI Development Plan" (Webster et al.) It focuses on reducing regional inequalities through projects like smart cities and AI-driven education platforms. In 2023, the Ministry of Science and Technology (MOST) issued the Technology Ethics Review Measures to strengthen the presence of ethics in AI-related research and innovation activities. The measures introduce new provisions that apply to public agencies, universities, and private enterprises conducting research activities in China (Fiscal Note). However, concerns about surveillance and privacy persist.

European Union (EU)

The EU prioritizes ethical AI deployment, with initiatives like the European AI Alliance ("The European AI Alliance | Shaping Europe's Digital Future"). Its policies emphasize reducing inequalities through regulatory guidelines and policies that ensure AI systems are fair and transparent.

Timeline of Events

Date	Description of event
1943	Warren McCulloch and Walter Pitts designed the first artificial neurons, laying the foundation for artificial intelligence and computational neuroscience.
1950	Alan Turing published "Computing Machinery and Intelligence," introducing the Turing Test to evaluate a machine's ability to exhibit intelligent behavior equivalent to humans.
1952	Arthur Samuel developed one of the earliest AI programs, teaching a computer to play checkers independently, a milestone in machine learning.
1956	The Dartmouth Conference, organized by John McCarthy, coined the term "artificial intelligence," marking the formal start of AI as an academic discipline.
May 11, 1997	IBM's Deep Blue defeated world chess champion Gary Kasparov in a six-game rematch, showcasing AI's potential in decision-making and problem-solving.
February 14, 2011	IBM's Watson AI defeated two champions on Jeopardy!, exemplifying advancements in natural language processing. Apple also launched Siri, the first widely used AI voice assistant.

March 15, 2016	DeepMind's AlphaGo defeated Lee Sedol, a world champion in the board game Go, marking a breakthrough in complex decision-making AI.
October 25, 2017	Sophia, a humanoid robot powered by AI, became the first robot granted citizenship by Saudi Arabia, sparking debates on AI ethics and rights.
November 30, 2022	OpenAI launched ChatGPT, a transformative AI chatbot based on Generative Pre-trained Transformer technology, driving mainstream adoption of conversational AI.
September 2023	The UN released the UN 2.0 Policy Brief (Policy Brief 11), emphasizing AI governance frameworks for achieving sustainable development and ensuring ethical use of the technology.
October 4, 2023	The UN High-Level Committees on Programmes and Management (HLCP and HLCM) published a joint report on AI's impacts and governance (CEB/2023/7), addressing systemic challenges.
January 11, 2024	A UN task force was established to create a normative and operational framework for AI use across the UN system, highlighting the integration of AI for humanitarian and development goals.

Previous Attempts to Solve the Issue

International Efforts

The United Nations (UN) has played a significant role in addressing issues related to the social, digital, and economic divides. Notable initiatives include the establishment of the Task Force to Develop a System-wide Normative and Operational Framework on the Use of AI in the UN System (2024). This task force focused on creating global standards for AI governance, addressing the challenges of unequal access, and ensuring AI benefits all communities. While these frameworks are valuable, their implementation has been slow due to varying levels of technological readiness and commitment among member states.

Reports like the UN 2.0 Policy Brief (2023) and the Report of the High-Level Committees on Programmes and Management (2023) have emphasized the need for comprehensive governance frameworks to align AI development with sustainable development goals (SDGs). However, these efforts are often constrained by limited enforcement mechanisms and the lack of universal agreement on key ethical principles.

Technological Interventions

Private sector initiatives, such as Google's Digital Coaches program, have targeted emerging markets to provide digital tools and resources to small businesses. Similarly, AI platforms like Carnegie Learning's MATHia have focused on personalized education, addressing educational divides by delivering customized content to underserved students. While impactful, these efforts are localized and often rely on consistent internet access, which remains a challenge for many marginalized communities.

Civil Society Contributions

Non-governmental organizations (NGOs) and community-driven projects have made significant strides in bridging divides by employing open-source AI tools and localized technology training programs. For instance, DataKind, a global nonprofit, partners data scientists with social organizations to develop AI-driven solutions tailored to community needs. In one project, DataKind worked with a healthcare NGO in India to analyze patient data and optimize the distribution of medical supplies in underserved areas. Similarly, AI for Good, an initiative supported by the International Telecommunication Union, has collaborated with civil society groups to implement AI solutions for sustainable development (“Food and Agriculture Organization (FAO)”). One of their projects focused on using AI to predict crop yields and improve agricultural efficiency in sub-Saharan Africa, empowering smallholder farmers with actionable insights.

Possible Solutions

Bridging the Digital Divide

To ensure universal digital access, nations could adopt public-private partnerships that combine government funding with the expertise and innovation of private companies to build low-cost internet infrastructure in rural and underdeveloped regions. Technologies like low-Earth orbit (LEO) satellites, exemplified by initiatives such as Starlink, have shown significant promise in delivering affordable, high-speed internet even in the most remote areas. Additionally, governments could provide subsidies for digital devices like smartphones and tablets to lower barriers to entry for economically disadvantaged populations. Establishing free digital literacy programs within schools, libraries, and community centers is critical to empowering individuals with the knowledge and skills to navigate and utilize digital tools effectively, creating a foundation for long-term societal transformation.

Enhancing Education Through AI

Educational disparities can be addressed by leveraging AI-powered platforms such as MATHia, which dynamically adapt to individual learning needs. Governments and international organizations could collaborate with tech companies to scale up these technologies, focusing on developing localized AI solutions that are culturally relevant, linguistically inclusive, and

accessible in areas with limited technological infrastructure. Pilot programs could test the implementation of AI learning platforms in underprivileged schools, with results informing nationwide or regional rollouts. Moreover, teacher training programs should integrate AI tools into their curricula to ensure educators can effectively use these technologies to enhance student outcomes.

Economic Empowerment Through AI

AI has the potential to democratize economic opportunities by enabling skill-matching platforms that connect individuals to tailored job opportunities. These platforms can analyze individual capabilities, market trends, and career pathways to provide personalized recommendations, helping bridge gaps between job seekers and employers. Blockchain-integrated micro-lending platforms powered by AI-driven risk assessments could facilitate access to capital for small businesses, especially in underserved regions, by reducing risks and promoting financial inclusion. Governments, in collaboration with international organizations, should establish policies and frameworks that promote these inclusive AI applications, ensuring that advancements in automation, analytics, and AI tools are accessible to and benefit marginalized communities.

Funding and Collaboration

A Global AI Inclusivity Fund could be created to provide resources for low-income countries to adopt and develop AI solutions tailored to their needs. This fund could be supported by voluntary contributions from tech companies, governments, and international organizations. Such collaborations should prioritize capacity-building programs, such as training AI specialists in developing countries, to build local talent and encourage innovation while minimizing global disparities.

Bibliography

American Psychological Association. “Economic Inequality.” *Apa.org*, 2022, www.apa.org/topics/economic-inequality.

“Artificial Intelligence | United Nations - CEB.” *Unsceb.org*, unsceb.org/topics/artificial-intelligence.

Chief Executives Board for Coordination Report of the High-Level Committee on Programmes and the High-Level Committee on Management Joint Session on the Use and Governance of Artificial Intelligence and Related Frontier Technologies (4 October 2023, UN City, Copenhagen). 4 Oct. 2023.

“China’s AI Policy & Development: What You Need to Know.” *FiscalNote*, 7 Aug. 2024,

fiscalnote.com/blog/china-ai-policy-development-what-you-need-to-know.

Cho, Sung Hwan. “How to End Global Divides through AI and a Digital Economy.” *World Economic Forum*, 2 July 2024, www.weforum.org/stories/2024/07/ai-expanding-digital-economy-bridging-divides/.

“Food and Agriculture Organization (FAO).” *AI for Good*, 5 Dec. 2024, aiforgood.itu.int/about-us/un-ai-actions/fao/. Accessed 7 Dec. 2024.

Forbes. “Billionaires 2024.” *Forbes*, 2024, www.forbes.com/billionaires/.

Forum, World Economic. “Strategic Intelligence | World Economic Forum.” *Stategic Intelligence*, 2024, intelligence.weforum.org/topics/a1Gb0000001SH21EAG.

High-Level Committee on Management Task Force to Develop a System-Wide Normative and Operational Framework on the Use of AI in the UN System. 11 Jan. 2024.

“MATHia.” *Carnegie Learning*, www.carnegielearning.com/solutions/math/mathia/.

McCarthy, Jane Ribbens, and Rosalind Edwards. “Redirect Notice.” *Google.com*, 2024, www.google.com/url?sa=i&url=https%3A%2F%2Fsk.sagepub.com%2Fbooks%2Fkey-concepts-in-family-studies%2Fn45.xml&psig=AOvVaw1UZ9J0JPSwTLgjwErOH_ub&ust=1733642240816000&source=images&cd=vfe&opi=89978449&ved=0CAYQrpoMahcKEwj4qPjgjpWKAxUAAAAAHQAAAAAQBA. Accessed 7 Dec. 2024.

“Our Approach – DataKind.” *Datakind.org*, 2024, www.datakind.org/our-work/datakind-products/.

“Press Release.” *ITU*, 12 Sept. 2023, www.itu.int/en/mediacentre/Pages/PR-2023-09-12-universal-and-meaningful-connectivity-by-2030.aspx.

Stryker, Cole, and Eda Kavlakoglu. “What Is Artificial Intelligence (AI)?” *IBM*, IBM, 16 Aug. 2024, www.ibm.com/topics/artificial-intelligence.

“The European AI Alliance | Shaping Europe’s Digital Future.” *Digital-Strategy.ec.europa.eu*, digital-strategy.ec.europa.eu/en/policies/european-ai-alliance.

The White House. “Executive Order on the Safe, Secure, and Trustworthy Development and Use of Artificial Intelligence.” *The White House*, The White House, 30 Oct. 2023, www.whitehouse.gov/briefing-room/presidential-actions/2023/10/30/executive-order-on-the-safe-secure-and-trustworthy-development-and-use-of-artificial-intelligence/.

United Nations. “The 17 Sustainable Development Goals.” *United Nations*, 2024, sdgs.un.org/goals.

Webster, Graham, et al. “Full Translation: China’s “New Generation Artificial Intelligence Development Plan” (2017).” *DigiChina*, 1 Aug. 2017, digichina.stanford.edu/work/full-translation-chinas-new-generation-artificial-intelligence-development-plan-2017/.

Woods, Maggie . “What Is the Digital Divide? | Ncbroadband.gov.” *Www.ncbroadband.gov*, www.ncbroadband.gov/digital-divide/what-digital-divide.

World Bank. “Poverty Overview.” *World Bank*, 15 Oct. 2024, www.worldbank.org/en/topic/poverty/overview.

Appendix or Appendices

I. Gmyrek, P., J. Berg, and D. Bescond. “Generative AI and Jobs: A Global Analysis of Potential Effects on Job Quantity and Quality.” *Mind the AI Divide: Shaping a Global Perspective on the Future of Work*, United Nations Office of the Secretary-General’s Envoy on Technology, 2024, p. 6.

II. Berg, Janine, Mehdi Snene, and Lucia Velasco. “Valuing Data Enrichment Workers: The Case for a Human-Centric Approach to AI Development.” *Mind the AI Divide: Shaping a Global Perspective on the Future of Work*, United Nations Office of the Secretary-General’s Envoy on Technology, 2024, p. 11.

III. Gmyrek, P., H. Winkler, and S. Garganta. “Buffer or Bottleneck? Generative AI, Employment Exposure and the Digital Divide in Latin America.” Mind the AI Divide: Shaping a Global Perspective on the Future of Work, United Nations Office of the Secretary-General’s Envoy on Technology, 2024, p. 7.