

Forum: United Nations Commission on Science and Technology for Development (UNCSTD)

Issue: Addressing the Challenge of Developing Economies Lagging Behind Advanced

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Introduction

The relationship between wealthier and poorer countries with artificial intelligence is a complex and complicated issue. This document aims to research the cooperation between these two economically different countries using AI and provide recommendations for promoting global peace and sustainable development. AI threatens to deepen the divide, as wealthier countries with well-established digital infrastructures increase their economic growth. Whereas, impoverished countries struggle with scarce technical education and insufficient funding for AI research and infrastructure. Addressing this issue is essential not only for the future of these countries but also for fostering inclusive global AI- progress. By establishing AI in developing countries, helping in economic growth, eliminating the digital divide between advanced countries, and tackling local dilemmas such as developing attainable healthcare access.

Definition of Key Terms

Digital Infrastructure

Networks, servers, and other technology required for digital activity, such as cybersecurity frameworks and data storage facilities, which are essential for AI development.

Advanced Countries

Countries with high income, high standards of living, and advanced technology.

Developing Countries

Countries with poor income, low standards of living, and less advanced technology.

G20

An intergovernmental group consisting of 19 sovereign countries, the European Union (EU) and the African Union (AU).

Background Information

Over the years, the gap between developing countries and advanced countries in using AI is rooted in the inconsistency in infrastructure. Advanced countries have had the resources and financial stability to build digital frameworks permitting AI growth. In contrast, developing countries face difficulties including scarce internet access, minimal knowledge on technology, limited skilled professionals on hand, hindering their ability to utilize AI effectively. This gap can lead to economic inequality, as advanced countries experience economic growth following the growth of AI. A study conducted in 2024 by the International Monetary Fund, showcased that advanced countries are exposed to AI nearly 40% of the time while developing countries are exposed to AI nearly 26% of the time, as a result developing countries are less ready to seize AI's advantages leading to a digital divide as well as economic inequality.

Previous Attempts To Resolve This Issue

There are countless efforts addressing this global issue however 4 main trials stood out :

1. Google's TensorFlow

In 2015, Google launched TensorFlow, an open-access library developed by the Google Brain team, to help people learn how to build and utilize machine learning models easily, supporting deep learning;

2. Facebook's Express Wi-Fi Program

Facebook's Express Wi-Fi Program directed to partner with local businesses to provide affordable internet access and maintain Wi-Fi infrastructure in developing countries.

Unfortunately, in 2022, Express Wi-Fi was shut down;

3. MIT RAISE

MIT RAISE (Responsible AI for Social Empowerment and Education) , launched in 2020, aims to support research and educational programs for K-12 students to make AI more inclusive;

4. The Technology Bank

The Technology Bank for Least Developed Countries (LDCs) was established in 2018 to strengthen developing countries with their science technology innovation (STI) in order to fast-track their development to improve the lives of their people.

Possible Solutions

1. Investing in Digital Infrastructure

Sparkling job growth by allowing companies along with small businesses to widen their markets and customers using social media. Furthermore, investing in these foundations for digital growth can lead to economic growth by allowing access to global markets, and obtaining educational resources to enhance digital literacy.

2. Fostering a Suitable Environment for Developing a Better Digital Infrastructure

Increasing digital literacy through education and training programs allowing citizens to acquire the skills necessary to use digital technologies;

3. Partnership with Advanced Countries

Advanced countries can enable access to modern technology such as data centers, AI tools, collaboration on research, creating a joint infrastructure between advanced and developing countries. Moreover, advanced countries can lead internships/scholarships to help train future developers, engineers, data scientists, and other AI specialists from developing countries.

Major Parties Involved

United States

- The United States has implemented the use of AI in the workplace to widen the racial wealth gap between black and white households by \$43 billion by 2045;
- Researchers calculate that with the growth of AI the annual US GDP growth will increase between 0.5 - 1.5 over the next 10 years.

China

China being among the top 3 countries for AI usage, estimated to gain \$600 billion annually if AI growth spreads to new sectors in China.

United Kingdom

- The United Kingdom has an opportunity to gain £550 billion in the next 10 years as well as the opportunity to have an average societal Return on Investment (ROI) of 5:1 -for every extra £1 spent the economy can grow by £5;
- The United Kingdom stands to gain £400 billion in economic value by 2030 and achieve major productivity gains across sectors of the UK.

Canada

- Canada became the first country to globally launch a national AI strategy and invested over \$2 billion since 2017 to support AI research and innovation;
- Canada has invested \$2.4 billion from the Budget 2024 to secure Canada's AI advantage.

India

- India showcases a high-powered IT industry worth \$250 billion, serving many of the world's banks, manufacturers and firms;
- Reporters predict that India's AI services will be worth \$17 billion by 2070.

Timeline of Key Events

| Date | Description of Event |
|------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2017 | Canada launched the world’s first national AI strategy ensuring Canada’s position as a world leader in AI. |
| 2021 | UNESCO launched the “Recommendation on the Ethics of Artificial Intelligence” in order to protect human rights and dignity. |
| 2021 | G20 countries established a set of principles for AI stressing on transparency, fairness, and inclusive AI development highlighting the need for infrastructure and resources for developing countries. |
| 2022 | The Digital Public Goods Alliance (DPGA) expanded their efforts to assist the distribution of digital public goods that are accessible to developing countries. |

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| 2023 | 40 UN Sister Agencies hosted The AI for Good Global Summit assembling keynote speakers, performances by AI-inspired artists, and researchers to discuss AI deployment for all nations. |
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Bibliography

Berman, E. (2024). *MIT RAISE: Responsible AI for social empowerment and education*.

RAISE Initiative . <https://raise.mit.edu/>

Cazzaniga, Jaumotte, Li, Melina, et al. (2024, January). *Gen-AI: Artificial Intelligence and the Future of Work* . International Monetary Fund.

[https://file:///C:/Users/96650/Downloads/SDNEA2024001%20\(2\).pdf](https://file:///C:/Users/96650/Downloads/SDNEA2024001%20(2).pdf)

Dawson, A. (2024, May 16). *AI could boost UK GDP by £550 billion by 2035, research shows*. Microsoft UK Stories.

<https://ukstories.microsoft.com/features/ai-could-boost-uk-gdp-by-550-billion-by-2035-research-shows/>

G20 Summit . (n.d.). *G20 AI Principles* . ANNEX. Retrieved November 11, 2024, from https://www.mofa.go.jp/policy/economy/g20_summit/osaka19/pdf/documents/en/annex_08.pdf

Geneva, Switzerland and online. (2023). *AI for a good global summit 2023*. Digital Watch Observatory. <https://dig.watch/event/ai-for-good>

Gupta, S. (2018, April 6). Highlights from tensorflow dev summit 2018. *Google Developers Blog*.

<https://developers.googleblog.com/en/highlights-from-tensorflow-dev-summit-2018/>

Keary, T. (2023, November 13). *Top 10 Countries Leading in AI Research & Technology in 2024*. Techopedia.

<https://www.techopedia.com/top-10-countries-leading-in-ai-research-technology>

Mordecai, G. (2018, August 28). *Express Wi-Fi: Fast and affordable Wi-Fi*. Engineering at Meta.

<https://engineering.fb.com/2018/08/28/connectivity/express-wi-fi-certified-enabling-connections-that-matter/>

Nguyen, B. (2023, December 19). Artificial intelligence could widen racial wealth gap in U.S. by \$43 billion, research suggests. *Forbes*.

<https://www.forbes.com/sites/britneynguyen/2023/12/19/artificial-intelligence-could-widen-racial-wealth-gap-in-us-by-43-billion-research-suggests/>

Rajvanshi, A. (2024, September 5). India is emerging as a key player in the global AI race. *Time*. <https://time.com/7018294/india-ai-artificial-intelligence-ambani/>

Shen, K., Tong, X., Wu, T., & Zhang, F. (2022, June 7). *Kai shen*. McKinsey & Company.

<https://www.mckinsey.com/capabilities/quantumblack/our-insights/the-next-frontier-for-ai-in-china-could-add-600-billion-to-its-economy>

The DPGA . (2022). *State of the Digital Public Goods Ecosystem* .

<https://www.digitalpublicgoods.net/DPG-Ecosystem-2022.pdf>

Third Way . (2024, January 31). *Third way*.

<https://www.thirdway.org/report/ai-and-the-us-economy-optimism-pessimism-or-realism>

Trudeau , J. (2024). *Securing Canada's AI advantage*. Prime Minister of Canada.

<https://www.pm.gc.ca/en/news/news-releases/2024/04/07/securing-canadas-ai>

United Nations. (2024). *Technology bank for least developed countries (ldcs)*. LDC

Portal - International Support Measures for Least Developed Countries.

<https://www.un.org/ldcportal/content/technology-bank-least-developed-countries-ldcs>

Weinstein, D. (2024, September 19). How AI can bring new opportunities in the UK.

Google.

<https://blog.google/around-the-globe/google-europe/united-kingdom/ai-potential-uk/>