

Background

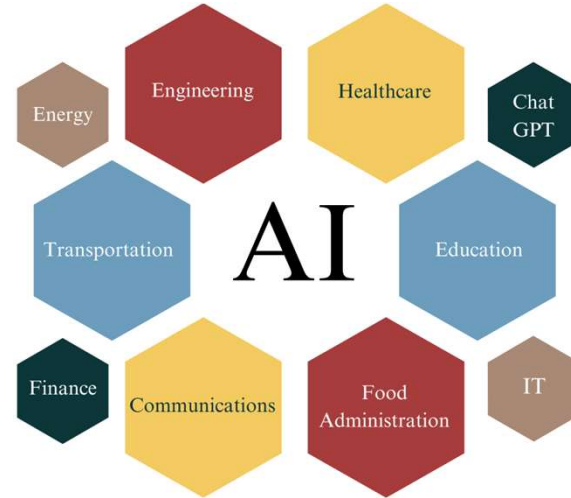
Background: The invention and continual growth of artificial intelligence (AI) on the global stage have significantly shaped the world's economies, governments, societies and their cultures. The new industrial revolution and the subsequent race of the world's leading powers have led to increased international joint efforts and exchange of information, simultaneously reducing barriers to trade and communication. Meanwhile, emerging technologies deploying AI have led to changes in human behavior and culture and challenged the traditional nation-state model. Although several implications of the proliferation of AI remain unknown, its widening application may be tied with accelerating globalization.

Globalization

The tightening of international relations and global intermingling of cultures and ideologies, as a result of which the world becomes a benchmark in lieu of societies and the existing nation order shifts to a world order with shared values, laws, and institutions. Scholars argue that globalization is predominantly driven by the dissemination of ideas, values, and practices across borders, which ultimately fosters the formation of a global cultural identity. This exchange and diffusion follow one of three distinguished patterns: homogenization, hybridization, polarization.[1]

Artificial Intelligence

Computer systems that perform assignments which require a certain level of intelligence among humans or other animals. For a given set of human- defined objectives, they make predictions, recommendations, or decisions influencing real or virtual environments. AI usually represents an umbrella term for a range of technologies, including machine learning, natural language processing, data mining, neural networks, or an algorithm.[2]



Artificial intelligence has found applications in a wide range of industries and domains.

It has played a major role in the Fourth Industrial Revolution in the sought of interconnected and digitalized technologies that enable higher efficiency and low-cost production and services, in some cases yielding entirely new consumer goods and solutions.[4]

The enhanced performance and efficacy of robots and software derive from the ability of AI to automatically make decisions concerning industrial processes.

The search for and eventual invention of AI was the result of a quest to maximize human capabilities and development by increasing efficiency and conserving time on the most complex tasks. The ability to interpret pre-programmed data and improve existing algorithms is the main property of AI that drives such rapid technological advances, applied to virtually every area of human life. In addition, when compared with traditional methods, AI comes as a great asset when dealing with tasks characterized by uncertainty and offers effective tools in solving such intricate problems.[5]

Conclusion

Artificial intelligence has long left an imprint on today's world. The consequences of its advancement and proliferation in such a vast array of fields applied to human life may be observed in virtually every locality of the world. As a result, people have become progressively uniform in thought, behavior, and life priorities. This trend will prevail as artificial intelligence continues to be researched and developed more than ever before, and will eventually form a global citizenry that will challenge the current nation-state model. Local and regional governments will then determine how to manage the arising challenges and how to preserve what has remained of unique cultures and social identities. Their "success will depend on blending traditional human intelligence with emerging technologies in creative ways. It will require, in other words, adapting to a world where the only safe prediction about change is that it will accelerate." [6] It is evident that a series of reforms will address policymaking, national defense, immigration management, industrial development, education, human service, among many other issues. These transformations will consistently have a common threat, they will progress towards globalization, propelled by the unprecedented force of artificial intelligence, which true capabilities and potential the world has yet to discover.

Artificial intelligence, akin to globalization, contributes to the phenomenon of deglobalization. It may be argued that the deployment of AI-tools in the international production and trade has negatively impacted global resources mobility, displaced many high-skill workers, and factored into a capital outflow from countries such as the US, EU member states, and Japan. This, in turn, has prompted policymakers to prioritize national interests over the objectives of global institutions. The innovation of AI has also intensified competition between its pioneering developers, such as the United States and People's Republic of China, often inhibiting their global cooperation.[7] Further, AI domestic and international regulation have created significant barriers to global trade and globalization at large. Cybersecurity issues have escalated around the world, which alongside the proliferation of the latest AI-based military technology and weaponry, have changed the approach to national defense and policymaking at the state level. For instance, in combating the malevolent use of smart technology in surveillance and cybercrime, similar AI-tools have been utilized. However, these examples demonstrate that the trend of deglobalization, influenced by AI, largely stems from the initial acceleration of globalization driven by smart software and technology.

Research Question

Life in the 21st century has been depicted as fast-paced, information-oriented, and filled with opportunities for invention, progress, and creativity. Sectors such as healthcare, education, engineering, IT, and communications, among others, have undergone vast technological transformations. In parallel, the past two decades marked the invention and global proliferation of artificial intelligence (AI). Machines and software operated in virtually every part of the world often rely on algorithms and datasets undergoing constant improvement by AI systems, with little human intervention.

Latest digital adoption enabled for more robust production and supply, spurred intergovernmental initiatives and cooperation, but most notably, transformed the public sector. Transitions in healthcare, education, engineering, IT, and communications are just a few examples of technological expansion, with AI in its center. Societies, governments, and economies continue to be impacted by newest solutions, including machine learning and algorithm writing, virtual reality, AI-powered robotics, advanced interfaces, and autonomous systems.[3]

Due to the technology gap, however, there are still unknown consequences of the use of AI on the mass scale. Although the applications of AI and its benefits to both science and humanities are well stated and explained in the latest research, little focus has been given to the tie between AI and globalization. The performance of artificial intelligence is of a catalytic nature; by transforming and refining certain industries and areas of human life, it also connects individuals, often fusing their practices, beliefs and life objectives. Most of these influences, if not all, coincide with the trend of globalization. It may be argued, drawing on data analysis and assessment of major world's events, that artificial intelligence is one of the main drivers of globalization.

Methods

A wide array of academic sources from different countries have been considered to reflect varying perspectives. Among the primary references are works dedicated to:

- Development of artificial intelligence,
- AI specific applications,
- Analysis of global expansion,
- Relevant trends,
- Prospective outcomes of globalization.

The qualitative methods applied to research allowed an in-depth analysis and comparison of data critical to establishing the previously overlooked relationship between the advancement of AI and globalization.



Dissenting Theories



Future Work

Future research on AI propulsion of globalization will prioritize investigating and explaining AI's influence on global economics, labor markets, culture, and geopolitics. In addition, it will examine the ethical implications of AI, including data privacy, algorithmic bias, and security threats. Researchers will investigate the prospective applications of artificial intelligence in promoting worldwide prosperity and safety, and addressing global competition between democracies and autocracies.

Acknowledgments

[1] Tuo Cai and Zhenye Liu, *Global Studies: Volume 1, Globalization and Globality*. 1st ed. (Abingdon, Oxon; New York, NY: Routledge, 2020): 25-26.

[2] Christoph Bartneck et al., *An Introduction to Ethics in Robotics and AI*. 1st ed. (Cham: Springer, 2021), 8.

[3] Michael Cheng-Tek Tai, "The Impact of Artificial Intelligence on Human Society and Bioethics," *Tzu Chi Medical Journal* 32, no. 4 (October 2020): 339-341.

[4] Organisation for Economic Co-operation and Development, *The Next Production Revolution: Implications for Governments and Business* (Paris: OECD Publishing, 2017), 27.

[5] Hanchen Wang et al., "Scientific Discovery in the Age of Artificial Intelligence," *Nature (London)* 620, no. 7972 (August 2023): 48-50.

[6] William J. Burns, "Spycraft and Statecraft: Transforming the CIA for an Age of Competition," *Foreign Affairs* 103, no. 1 (January 2024), <https://www.foreignaffairs.com/united-states/cia-spycraft-and-statecraft-william-burns>.

[7] Ryszard Piasecki, Miron Wolnicki, and Erico Wulf Betancourt, "Artificial Intelligence in the Context of Global Resource Mobility. What can be Expected from it?" *Comparative Economic Research. Central and Eastern Europe* 24, no. 3 (September 2021): 94.