BG Pulse Journal USA
ISSN:1947-2536 http://www.bgpulseusa.com/index.php/bg

THE ROLE AND PROSPECTS OF ARTIFICIAL INTELLIGENCE TECHNOLOGIES IN ECONOMICS EDUCATION

Menglikulov Javohirbek Ramazon ugli
Student of Karshi State Technical University

E-mail: javohirbek0313@gmail.com

Abstract: This article analyzes the role and prospects of artificial intelligence technologies in economic education. AI technologies significantly improve learning personalization, economic modeling, and data-driven decision-making. The study highlights integration opportunities, challenges, and future development trends of AI in education.

Keywords: artificial intelligence, economics, big data, modeling, digital education, forecasting, automation.

Introduction: Artificial Intelligence (AI) is a general-purpose technology that is fundamentally transforming our lives. The rapidly growing number of AI applications is creating broad opportunities across various sectors. Therefore, it is not surprising that countries around the world are increasingly adopting AI to enhance the competitiveness of their industries in global export markets and to develop new areas of comparative advantage. These efforts are particularly important for developing economies, which often rely heavily on exports to stimulate economic growth but may remain dependent on a limited range of products or commodities. For such economies, diversification opens new sources of growth and enhances resilience to unexpected economic shocks.

Today, the process of digital transformation in economics education is accelerating. Traditional educational systems are no longer able to fully meet the demands of the modern economy. Consequently, the integration of artificial intelligence technologies into the educational process has become a significant and timely area of scientific research.

Literature Review: Artificial intelligence (AI) technologies have emerged as one of the most significant innovations of the twenty-first century, exerting a profound influence on the development of both the economy and the education system. The theoretical foundations of these technologies are based on the concepts of the digital economy, machine learning, big data, and automation. In particular, the application of AI in economics education plays a crucial role in improving educational effectiveness, enhancing the accuracy of economic analyses, and advancing forecasting systems.

At the international level, the role of artificial intelligence in the economy and education has been extensively studied by organizations such as UNESCO, the Organisation for Economic Co-operation and Development (OECD), the World Bank, and the International Monetary Fund (IMF). According to experts from these organizations, “Artificial intelligence technologies play a significant role in the rapid analysis of economic processes, the development of digital governance systems, and the formation of human capital” [1].

American scholars Stuart Russell and Peter Norvig define artificial intelligence as a decision-making system capable of emulating human reasoning and have substantiated its potential for

modeling economic processes. According to the authors, “Artificial intelligence technologies enable the processing of large volumes of data within a short period of time and improve the accuracy of economic forecasting” [2].

The studies conducted by **Teoh T.** and **Rong Z.** focus on the development of artificial intelligence models using the Python programming language, methods for analyzing economic data, and the design of automated systems. The researchers emphasize the importance of AI technologies in improving efficiency within both economic management and educational systems.

Domestic researchers have also extensively examined the prospects for the development of artificial intelligence and the digital economy. In particular, scientific studies in Uzbekistan focus on digital transformation processes, the implementation of AI technologies in the economy, and the modernization of the education system. These studies demonstrate that the application of artificial intelligence in economics education contributes to the development of students' analytical thinking, enhances their practical skills, and fosters modern digital competencies.

Research Methods: The study employed contemporary methods of economic research. The methodological framework was based on a systematic approach, comparative analysis, statistical analysis, logical generalization, scientific abstraction, and expert evaluation methods.

Results and Discussion: From the perspective of economics education, artificial intelligence enables the modeling of economic processes, economic forecasting, the analysis of large-scale datasets (big data), and the delivery of personalized learning experiences for students. The implementation of AI technologies enhances the accuracy of economic modeling and reduces errors in the decision-making process.

Table 1.

Revenue Performance of Artificial Intelligence (AI), 2018–2025

Years	Revenue
2018	$10.1 milliard
2019	$14.69 milliard
2020	$22.59 milliard
2021	$34.87 milliard
2022	$51.27milliard
2023	$70.94 milliard
2024	$94.41 milliard
2025	$126 milliard

Statistical data indicate that the artificial intelligence market expanded by nearly twelvefold between 2018 and 2025. In particular, the rapid growth observed after 2021 was driven by the increasing automation of business processes and the expansion of the digital economy. This growth can primarily be attributed to the rising demand among enterprises and organizations for automating operational processes, rapidly analyzing large volumes of data, and reducing operational costs. Furthermore, the growing adoption of artificial intelligence technologies in sectors such as education, banking, healthcare, and industry has also contributed significantly to the increase in market revenue.

In addition, considerable attention is being devoted to the development of artificial intelligence technologies in Uzbekistan. In particular, the **Resolution of the President of the Republic of Uzbekistan No. PQ-358, dated October 14, 2024, "On the Approval of the Strategy for the Development of Artificial Intelligence Technologies until 2030"** [3], is one of the key policy documents in this field. The resolution establishes strategic priorities for the widespread implementation of artificial intelligence across the economy, education, healthcare, public administration, and other sectors, while also promoting the development of modern digital infrastructure and the training of highly qualified specialists.

Particular emphasis is placed on the education sector, where the strategy prioritizes the development of AI-based educational curricula, support for scientific research, and the promotion of young people's interest in information technology (IT). These initiatives are expected to contribute substantially to the future development of the digital economy and to the expansion of a highly skilled workforce.

Conclusion: The findings of this study indicate that artificial intelligence is expected to become one of the principal analytical tools in economics education, gradually complementing and, in some areas, partially replacing traditional statistical methods. AI technologies significantly optimize the process of economic analysis by enabling the rapid assessment of economic processes, generating more accurate forecasts, and facilitating the organization of a modern and effective educational environment.

In particular, the application of artificial intelligence in economics education enhances students' analytical thinking, strengthens their digital competencies, and improves their practical knowledge and skills. Therefore, it is essential to incorporate AI-based practical modules into economics education curricula.

In the future, artificial intelligence is expected to become a core analytical platform for economics education. In Uzbekistan, the increasing attention devoted to this field at the state level, together with the adoption of relevant strategies and policy measures, provides a solid foundation for the development of the country's digital economy. Consequently, the effective integration of artificial intelligence technologies into economics education represents one of the key approaches to preparing modern, competitive, and highly qualified professionals.

References

1. Aceves-Fernández M., Travieso-Gonzalez C. Sun’iy intellekt: 2022-yil ilmiy to‘plami. — IntechOpen, 2022. — 178 bet.

2. Bridle J. Sun’iy intellekt va insoniyat kelajagi. — Verso Books, 2022. — 304 bet.
3. O‘zbekiston Respublikasi Prezidentining 2024-yil 14-oktabrdagi PQ-358-sonli qarori
4. Teoh T., Rong Z. Python yordamida sun’iy intellekt. — Springer Singapore, 2022. — 336 bet.
5. Raju N., Rajalakshmi M., Goyal D. Mashinali o‘qitish orqali sun’iy intellektni rivojlantirish. — Apple Academic Press, 2022. — 264 bet.
6. https://infocom.uz/
7. https://lex.uz/
8. https://stat.uz/uz /
9. https://www.worldbank.org/
10. https://www.weforum.org/