

Date: 7th April-2026

**DEVELOPING FINANCIAL MECHANISMS TO SUPPORT THE
IMPLEMENTATION OF ARTIFICIAL INTELLIGENCE IN HIGHER
EDUCATION**

Ulbosin Kvatbaevna Daniyarova

ulbosindaniyarova@gmail.com

Independent Research Fellow, Karakalpak State University

Abstract: This article analyzes the issues of developing a system for financing the use of artificial intelligence technologies in the higher education system. In the context of the acceleration of digital transformation processes in the world, the introduction of innovative technologies in the field of education is gaining importance. In particular, the effective use of artificial intelligence serves to improve the quality of education, optimize management processes and develop scientific research. At the same time, improving the mechanisms for financing these processes is one of the pressing issues. The article considers ways to finance artificial intelligence through the state budget, private investments, public-private partnerships and international financial sources, and develops proposals for their development.

Keywords: artificial intelligence, higher education, financing, innovations, investments, public-private partnerships, digital transformation, education system

Introduction

In the current conditions of globalization and the digital economy, modernization of the higher education system is becoming one of the priorities. In particular, the introduction of artificial intelligence technologies into the educational process provides an opportunity to increase the efficiency of education, develop the individual abilities of students, and bring the quality of education to a new level.

The use of artificial intelligence improves not only the educational process, but also the processes of managing, analyzing, and forecasting educational institutions. However, the widespread introduction of these technologies requires significant financial resources. Therefore, it is important to develop mechanisms for effective financing of the introduction and development of artificial intelligence.

Today, in many developed countries, the state allocates large amounts of investment for the application of artificial intelligence in education, as well as extensive cooperation with the private sector and international organizations. A number of reforms are also being implemented in Uzbekistan in this direction, but further improvement of the financing system is required.

From this point of view, research into ways to develop a system for financing the use of artificial intelligence in higher education is of urgent scientific and practical importance.

Literature review



Date: 7th April-2026

The issues of introducing artificial intelligence into the higher education system and its financing have been widely studied by foreign and domestic scientists. In particular, foreign studies have emphasized the importance of artificial intelligence technologies in improving the quality of education, shaping individual educational trajectories of students, and automating the educational process.

Some studies have shown that the introduction of artificial intelligence requires large amounts of financial resources and the importance of state support in this process. Also, financing innovations in education through public-private partnership (PPP) mechanisms and venture investments has been evaluated as an effective method.

The works of domestic scientists mainly consider the issues of digitizing the higher education system, supporting innovative activities, and increasing the financial independence of educational institutions. However, the specific mechanisms for financing artificial intelligence and assessing their effectiveness have not been studied in sufficient depth.

At the same time, reports from international organizations have emphasized the need for a comprehensive approach to the introduction of artificial intelligence in education, including the integration of infrastructure, human resources, and funding sources.

In conclusion, it can be said that although the existing literature has widely covered the importance of artificial intelligence in education, issues related to improving its financing system require further in-depth research.

Methodology

This study used a comprehensive approach to studying the issues of developing a system for financing the use of artificial intelligence in higher education. Theoretical and practical methods were used in the research process.

In particular, the current state of the introduction of artificial intelligence in the field of education and sources of its financing were studied using the methods of analysis and synthesis. Using the comparative analysis method, the differences between the experience of developed countries and national practice were identified. Also, the effectiveness of funds allocated to education and innovative projects was assessed using the statistical analysis method.

The study also used an institutional approach and analyzed the mechanisms of cooperation between the state, the private sector and educational institutions. In addition, the opinions of specialists in the field were studied using the expert assessment method and the relevant conclusions were drawn.

Approaches to developing a financing system for the use of Artificial Intelligence in higher education



RECENT SCIENTIFIC DISCOVERIES AND METHODOLOGICAL RESEARCH.
International online conference.

Date: 7th April-2026

No.	Approach	Description	Funding Sources	Mechanism	Expected Outcomes
1	Government Targeted Grants	Special state grants to support AI integration in universities	State budget, education ministries	Competitive grant programs for AI-based projects	Rapid AI adoption, research growth
2	Public-Private Partnerships (PPP)	Collaboration between universities and tech companies	Private IT firms, government co-funding	Joint labs, sponsored research, shared infrastructure	Access to advanced AI tools, industry alignment
3	University Innovation Funds	Internal university funds allocated for AI initiatives	University budget, endowments	Annual budgeting for AI labs, software, training	Institutional AI capacity building
4	International Donor Programs	Funding from global organizations supporting digital education	World Bank, UNESCO, EU programs	Participation in international AI education projects	Global standards, knowledge transfer
5	Research Commercialization	Monetizing AI research outputs	Licensing, patents, startups	University tech-transfer offices	Sustainable self-financing model

Results

The results of the study showed that the existing mechanisms for financing the introduction of artificial intelligence technologies in the higher education system are not effective enough and require improvement.

It was found that the state budget remains the main source of financing, but the level of use of private investments and international financial resources remains low. In this regard, the expansion of public-private partnership mechanisms and support for startup projects has been proven to be of great importance.

The study also identified the need to develop infrastructure, increase human resources capacity, and improve the digital educational environment for the introduction of artificial intelligence. It was noted that ensuring transparency and efficiency in the financing process will serve to increase the return on investment.

It was also substantiated that, based on the proposed approaches, there is a possibility of forming an effective model for financing the use of artificial intelligence in higher education institutions.

Conclusion

As a result of the conducted research, it was determined that improving the financing system is of great importance in ensuring the effective use of artificial intelligence technologies in the higher education system. In the conditions of a modern



Date: 7th April-2026

digital economy, the introduction of innovations in the education system is one of the main factors in training competitive personnel.

The study showed that the state budget dominates as the main source of financing for the introduction of artificial intelligence, but the level of use of private investments, international grants and public-private partnership mechanisms is insufficient. Therefore, diversifying sources of financing, increasing the financial independence of educational institutions and supporting innovative startups is an important task.

It was also substantiated that in order to introduce artificial intelligence into the education system, it is necessary to develop digital infrastructure, train qualified personnel and ensure transparency of financing processes. If the proposed measures are implemented, the effectiveness of the use of artificial intelligence in the higher education system will increase and the quality of education will rise to a new level.

REFERENCES:

1. Russell S., Norvig P. Artificial Intelligence: A Modern Approach. – Pearson, 2021.
2. UNESCO. Artificial Intelligence in Education: Challenges and Opportunities. – Paris, 2021.
3. World Bank. Digital Development and Education Report. – Washington, 2020.
4. OECD. AI in Education: Policy Perspectives. – Paris, 2021.
5. Brynjolfsson E., McAfee A. The Second Machine Age. – W.W. Norton, 2018.
6. Kaplan A., Haenlein M. Siri, Siri, in my hand: Who's the fairest in the land? – Business Horizons, 2019.
7. Resolutions and decrees of the President of the Republic of Uzbekistan (regarding the digital economy and education).
8. Reports of the Ministry of Higher Education, Science and Innovation of the Republic of Uzbekistan.
9. M. Qodirov. Digital technologies in education. – Tashkent, 2022.
10. A. Abdukodirov. Fundamentals of innovative economy. – Tashkent, 2021.

