

Implementation of Artificial Intelligence in Uzbek Public Administration

Yakhyayeva Navruza Kholbutayevna¹

¹ Doctor of Philosophy (PhD) in Philological Sciences Uzbekistan State World Languages University Tashkent, Uzbekistan

Annotation:

This article aims to determine the prospects for using artificial intelligence technologies (AI) to improve the effectiveness of corporate governance in general and assess the prospects for its application to solve operational and strategic management tasks. Currently, two paradigms have emerged to investigate the possibilities of using AI in organizational research: A paradigm that views artificial intelligence as a collection of meta-algorithms capable of generating algorithms to solve specific problems. Corporate governance tasks and a paradigm that views artificial intelligence as a means of optimizing human behavior within an organization. Making managerial decisions at the board of directors level is highlighted as a critical area of application for artificial intelligence in corporate governance. The potential of AI to improve the efficiency of managerial decision-making is identified and determined. Among them are the following: providing the necessary amount and variety of information with less resource consumption, fast analysis of large amounts of data, development of reliable scenarios of the consequences of decisions, impartiality of decisions and others.

Keywords: artificial intelligence, public administration, digital economy, digital technologies, education, migration flow.

In the modern sense, the concept of artificial intelligence (AI) arose in the middle of the twentieth century. Its content changed with the development of the technical capabilities of machine copying of individual functions of human intelligence (starting with such simple ones as counting) up to the present state, when artificial intelligence is a powerful technological complex that can not only replace a person in solving numerous computational problems but also simulate individual functions of human consciousness. As Yu.Yu. Petrunin notes, in the process of developing ideas about AI, “really promising artificial intelligence tools were proposed: models of neural networks, genetic

and, more broadly, evolutionary algorithms, fuzzy logic, multi-agent (multi-agent) systems, reflexive control, etc.”¹

The problems of artificial intelligence (AI), and its technological tools used in public administration processes, have been reflected in a large number of Uzbek and foreign studies. A number of researchers advocating for a more active introduction of AI technologies into the work of the government, for example, Istiv M or Desouse K², they advocate the activation of this process within the framework of public-private partnership, the involvement of the academic community, and the phased solution of problems in the field of planning, development, and deployment of AI, the development of an AI maturity model to assess the progress made in public institutions in this area. Other researchers, recognizing, the technological advantages of AI, for example, Wang V. and Siai K³, the government and business warn about the likely increase in unemployment and further social instability associated with the displacement of many specialties in the civil service and the corporate sector by virtual assistants and assistants, as well as the need to work out the legal framework for regulation areas of AI that require a broad social discussion about degrees of freedom AI and the limits of its implementation at the present stage of society development.

West D. and Allen J⁴, recognizing the diversity and effectiveness of AI-based tools in the field of public administration, focus on the need to protect ethical values and ensure an appropriate degree of openness and control over AI, which allows for ensuring the necessary level of legal responsibility for decisions made using AI. Volsh T⁵ goes a little further in his analysis of AI and seeks to identify the prospects for the transformation of political, social, and economic subsystems comparing the prospects for the introduction of AI in various fields with the new stage of the industrial revolution, during which data and their processing power, as well as the algorithms used, will become a key factor in scientific and technological leadership. Mikhailov S. and Istiv M⁶ affect an equally important field of application AI as the development and transformation of public policy in the conditions of high uncertainty in the modern world, when AI helps to process large volumes of information and choose the optimal vector for the implementation of state policy, starting with from the practice of providing public services to the strategy of industrial development.

The project of the strategy for the development of artificial intelligence in Uzbekistan was presented for public discussion. In 2021-2022, the draft presidential decree on the strategy for the development of artificial intelligence in Uzbekistan was put into discussion. The strategy aims to systematically establish national scientific research and development activities in the field of artificial intelligence and to effectively reform education. In Uzbekistan, it is planned to develop artificial intelligence in 3 stages⁷.

Stage 1. 2021-2022-development and targeted systematization of the fundamental foundations of the development of artificial intelligence: systematic organization of scientific research and

¹Петрунин Ю.Ю. Искусственный интеллект: ключ к будущему? // Философские науки. 2018. № 4. С. 96–113. DOI: 10.30727/0235-1188-2018-4-96-113

² Desouza K.C. Delivering Artificial Intelligence in Government: Challenges and Opportunities, IBM Center for The Business of Government, 2018.

³ Wang W., Siau K. Artificial Intelligence: A Study on Governance, Policies, and Regulations, MW AIS, 2018, Proceedings 40 // <https://aisel.aisnet.org/mwais2018/40>.

⁴ West D., Allen J. How artificial intelligence is transforming the world, BROOKINGS, Tuesday, April 24, 2018 // <https://www.brookings.edu/research/how-artificialintelligence-is-transforming-the-world/>.

⁵ Walsh T. The AI Revolution, Education: Future Frontiers | Occasional Paper Series, 2017 // https://education.nsw.gov.au/media/exar/The_AI_Revolution_TobyWalsh.pdf

⁶ Mikhaylov S., Esteve M., Campion A. Artificial intelligence for the public sector: opportunities and challenges of cross-sector collaboration // Philosophical Transactions A, 06 August 2018 // <https://doi.org/10.1098/rsta.2017.0357>

⁷ <https://kun.uz/news/2020/11/06/davlat-boshqaruvida-suniy-intellekt-nima-uchun-kerak-vazir-orinbosari-tushuntirib-berdi?q=%2Fuz%2Fnews%2F2020%2F11%2F06%2Fdavlat-boshqaruvida-suniy-intellekt-nima-uchun-kerak-vazir-orinbosari-tushuntirib-berdi>

development activities in the main priorities of the development of artificial intelligence, effective reform of the educational system in the field of SI and accelerated international cooperation in scientific research and education. As well as support for the digital economy in production and increase the innovative activity of entrepreneurs.

Stage 2. 2023-2025- Quantitatively increase and improve the qualification and intellectual potential of personnel in the field of artificial intelligence in the field of international competition: establishment of new research and development centers in priority areas. To propose a set of rational solutions to the problems of economic sectors using SI by strengthening the system of integration of Business Science and state. Also, to increase the share of exports of national developments based on artificial intelligence-based high technologies in the national economy. The widespread use of digital production products created based on artificial intelligence technologies in the branches of the national economy, as well as the possession of competitive national brands in the world market.

Stage 3. 2026-2030 - formation of a highly developed information society in Uzbekistan: increasing the transparency and efficiency of public administration, formation of a unique information society that fully guarantees the rights and freedoms of citizens based on national values and universal principles, information formed to create high-value products from its collection, and to turn the country into an innovative hub that is a leader in Central Asian countries and competes with Asian countries in the priority sectors of the country's economic development.

The following are the main priorities for the development of artificial intelligence in 2021-2022:

- Regulation of fundamental foundations in normative-legal and moral relations;
- Step-by-step formation of an informed society;
- Support educational reform and scientific research activities in personnel training;
- Support the production of digital products and smart industry.

Considering that artificial intelligence technologies are increasingly permeating the life of an individual and society as a whole every year, the issue of introducing artificial intelligence technologies in public administration is becoming highly relevant, since with their help it is already possible to solve many typical tasks of civil servants or significantly simplify routine operations, while ignoring the capabilities of AI increases the risks of lagging behind the practice of public administration from the requirements of the digital age. In the future, technology artificial intelligence will be able to provide an effective solution to everything of the spectrum of tasks in public administration, primarily in the process of developing and making managerial decisions. At the heart of this process, according to I.V. Ponkin, the following approaches, technologies, and AI systems can already be used:

- “Hardware-implemented artificial cognitive systems and artificial self-developing and adapting systems for analyzing the situation, developing and real-time application decision-making;
- intelligent management tools for complex processes and projects;
- complex and highly complex multi-scenario algorithmizations to ensure public administration processes;
- technologies for processing and intelligent analysis and processing of large and ultra-large data arrays (for expert analytical and accounting support of public administration);
- complex and highly complex predictive scenario modeling (scenario planning), modeling under conditions of significant uncertainties;

- operational monitoring, assessment, "weighing" and ranking of risk arrays in public administration"⁸

Summarizing the possibilities of existing artificial intelligence technologies in relation to the modern requirements of digitalization of public administration, it should be noted that the most relevant and in-demand direction of using artificial intelligence is the solution of a wide range of administrative tasks related to the practice of providing public services to citizens and organizations. Moreover, artificial intelligence can be used in the practice of proactive provision of several public services within the framework of a citizen's life situation, providing timely and relevant answers to citizens' questions, identifying and predicting the needs of individuals and groups of the population, as well as developing plans for the effective use of resources. Artificial intelligence in public administration can be used to assist civil servants in organizing and conducting public procurement, improving the efficiency of the tax system. In addition to achieving the performance targets of various government departments, artificial intelligence technologies in many ways make it possible to prevent the introduction of "gray" schemes in the field of public procurement and taxation, reduce the likelihood of successful organization of criminal conspiracies and uncover fraud in the civil service. The result of the implementation of these technologies may be a gradual reduction of corruption in the public administration system, and as a result, an increase in the efficiency of the system itself.

Conclusion. The rapid qualitative and quantitative growth of computer technology and software, and the accumulation of a significant amount of data in various fields of human activity at the beginning of the 21st century are the main factors determining the development of artificial intelligence technologies. The relevance and practical necessity of further AI development in public administration are dependent on the success of the application of AI technologies in various spheres of human activity, particularly security, and require the state to pay close attention to, adapt to, and use the most successful AI-based developments in its activities. Starting with the use of artificial intelligence technologies in state control and supervisory activities and progressing to solving problems related to forecasting and mitigating the consequences of uncontrolled migration, these technologies have the potential to significantly increase the efficiency and effectiveness of public administration.

References:

1. Петрунин Ю.Ю. Искусственный интеллект: ключ к будущему? // Философские науки. 2018. № 4. С. 96–113. DOI: 10.30727/0235-1188-2018-4-96-113
2. Desouza K.C. Delivering Artificial Intelligence in Government: Challenges and Opportunities, IBM Center for The Business of Government, 2018.
3. Wang W., Siau K. Artificial Intelligence: A Study on Governance, Policies, and Regulations, MW AIS, 2018, Proceedings 40 // <https://aisel.aisnet.org/mwais2018/40>.
4. West D., Allen J. How artificial intelligence is transforming the world, BROOKINGS, Tuesday, April 24, 2018 // <https://www.brookings.edu/research/how-artificialintelligence-is-transforming-the-world/>.
5. Walsh T. The AI Revolution, Education: Future Frontiers | Occasional Paper Series, 2017 // https://education.nsw.gov.au/media/exar/The_AI_Revolution_TobyWalsh.pdf

⁸ Понкин И.В. § 7.11. Использование технологий искусственного интеллекта в государственном управлении // Понкин И.В. Теория публичного управления: Уч. для магистратуры и программ Master of Public Administration / Предисл. А.Б. Зеленцова / Институт государственной службы и управления РАНХиГС при Президенте РФ. – М.: Буки Веди, 2017. – 728 с. – С. 311–313.

6. Mikhaylov S., Esteve M., Campion A. Artificial intelligence for the public sector: opportunities and challenges of cross-sector collaboration // Philosophical Transactions A, 06 August 2018 // <https://doi.org/10.1098/rsta.2017.0357>
7. <https://kun.uz/news/2020/11/06/davlat-boshqaruvida-suniy-intellekt-nima-uchun-kerak-vazir-orinbosari-tushuntirib-berdi?q=%2Fuz%2Fnews%2F2020%2F11%2F06%2Fdavlat-boshqaruvida-suniy-intellekt-nima-uchun-kerak-vazir-orinbosari-tushuntirib-berdi>
8. Понкин И.В. § 7.11. Использование технологий искусственного интеллекта в государственном управлении //Понкин И.В. Теория публичного управления: Уч. для магистратуры и программ Master of Public Administration / Предисл. А.Б. Зеленцова / Институт государственной службы и управления РАНХиГС при Президенте РФ. – М.: Буки Веди, 2017. – 728 с. – С. 311–313.