

ARTIFICIAL INTELLIGENCE AND NATIONAL MENTALITY: OPPORTUNITIES AND RISKS**Abdumalikova Mukhayyo Mukhiddin qizi**

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Abstract. This article examines the opportunities and risks of artificial intelligence (AI) in the context of Uzbekistan, with special attention to its interaction with national mentality and cultural values. In the 21st century, technologies such as ChatGPT, Midjourney, and DALL·E have created new perspectives for education, medicine, economy, and culture. At the same time, these tools present significant challenges to independent thinking, language preservation, and cultural identity. The study employs a comparative approach, analyzing international practices (United States, China, South Korea) and comparing them with the realities of Uzbekistan.

Particular emphasis is placed on mechanisms for adapting AI technologies to the local context, including the development of Uzbek-language digital platforms, protection of cultural heritage, and strengthening critical thinking skills among youth. The paper also highlights statistical data from UNESCO and the Ministry of Higher Education of Uzbekistan, which show both the rapid progress and potential vulnerabilities of digital transformation. The originality of the research lies in its focus on safeguarding national mentality against global technological influence while still benefiting from AI innovations. By analyzing both opportunities and risks, the article proposes strategies for harmonizing technological progress with cultural preservation.

It concludes that the future of Uzbekistan depends not only on technological achievements but also on its ability to integrate AI with national values, thus ensuring sustainable development in the age of globalization.

Keywords: artificial intelligence, globalization, national mentality, technology, youth, values, language.

Аннотация. В данной статье рассматриваются возможности и риски, связанные с искусственным интеллектом (ИИ) в контексте Узбекистана, с особым вниманием к его взаимодействию с национальным менталитетом и культурными ценностями. В XXI веке такие технологии, как ChatGPT, Midjourney и DALL·E, открыли новые перспективы в образовании, медицине, экономике и культуре. Одновременно с этим данные инструменты представляют серьезные вызовы для независимого мышления, сохранения языка и культурной идентичности. В исследовании используется сравнительный подход, включающий анализ международного опыта (США, Китай, Южная Корея) и его сопоставление с реалиями Узбекистана. Особое внимание уделено механизмам адаптации технологий ИИ к локальному контексту, включая развитие цифровых платформ на узбекском языке, защиту культурного наследия и укрепление критического мышления среди молодежи. В работе также приводятся статистические данные ЮНЕСКО и Министерства высшего образования Узбекистана, свидетельствующие как о стремительном прогрессе, так и о потенциальных уязвимостях цифровой трансформации. Оригинальность исследования заключается в акценте на сохранении национального менталитета перед лицом глобального технологического влияния при одновременном использовании инноваций ИИ. Анализируя как возможности, так и риски, статья предлагает стратегии гармонизации технологического прогресса с культурным

наследием. В заключение подчеркивается, что будущее Узбекистана зависит не только от технологических достижений, но и от способности интегрировать ИИ с национальными ценностями, что обеспечит устойчивое развитие в эпоху глобализации.

Ключевые слова: искусственный интеллект, глобализация, национальный менталитет, технологии, молодежь, ценности, язык.

Annotatsiya. Ushbu maqolada sun'iy intellekt (SI)ning imkoniyatlari va xavflari O'zbekiston kontekstida, xususan uning milliy mentalitet va madaniy qadriyatlar bilan o'zaro aloqasi nuqtayi nazaridan tahlil qilinadi. XXI asrda ChatGPT, Midjourney va DALL-E kabi texnologiyalar ta'lim, tibbiyot, iqtisodiyot va madaniyat sohalarida yangi ufqlarni ochib berdi.

Shu bilan birga, bu vositalar mustaqil tafakkur, tilni asrab-avaylash va madaniy identitetni saqlash borasida jiddiy muammolarni yuzaga keltirmoqda. Tadqiqotda qiyosiy yondashuv qo'llanib, xalqaro tajriba (AQSh, Xitoy, Janubiy Koreya) O'zbekiston realliklari bilan taqqoslab o'rganiladi. Ayniqsa, sun'iy intellekt texnologiyalarini mahalliy sharoitga moslashtirish mexanizmlariga e'tibor qaratilgan bo'lib, ular qatorida o'zbek tilidagi raqamli platformalarni rivojlantirish, madaniy merosni himoya qilish va yoshlar orasida tanqidiy fikrlashni mustahkamlash masalalari mavjud. Maqolada, shuningdek, UNESCO va O'zbekiston Oliy ta'lim vazirligi ma'lumotlariga tayanilgan bo'lib, ular raqamli transformatsiyaning tezkor rivojlanishi bilan bir qatorda mavjud zaifliklarini ham ko'rsatadi. Tadqiqotning o'ziga xosligi milliy mentalitetni global texnologik ta'sirga qarshi himoya qilish bilan birga SI innovatsiyalaridan samarali foydalanish zarurligiga qaratilganidir. Imkoniyatlar va xavflarni tahlil qilgan holda maqola texnologik taraqqiyot va madaniy meros uyg'unligini ta'minlash strategiyalarini taklif etadi. Xulosa qilib aytganda, O'zbekiston kelajagi faqat texnologik yutuqlarga emas, balki sun'iy intellektni milliy qadriyatlar bilan uyg'unlashtirish qobiliyatiga ham bog'liq bo'lib, bu esa globallashuv davrida barqaror taraqqiyot kafolatidir.

Kalit so'zlar: sun'iy intellekt, globallashuv, milliy mentalitet, texnologiya, yoshlar, qadriyatlar, til.

The 21st century is an era of technological advancement, in which the progress of humankind is unimaginable without the achievements of artificial intelligence (AI). In recent years, digital tools such as ChatGPT, Midjourney, DALL·E, and Gemini have rapidly entered our daily lives. On the one hand, these technologies are opening new horizons in education, medicine, economics, and culture. On the other hand, they exert influence on human cognition, language, and national values, potentially altering the national mentality. Therefore, the issue of artificial intelligence has become highly relevant for Uzbekistan, requiring deep analysis not only from a scientific perspective but also from social and cultural dimensions. The concept of artificial intelligence has been defined differently by many researchers. For example, Brynjolfsson and McAfee (2014) describe AI as "a tool that extends human cognitive activity," while Floridi (2020) characterizes it as "a technological revolution with moral and social consequences." From this perspective, AI should be regarded not merely as a technological phenomenon but also as a cultural and philosophical one. As President of the Republic of Uzbekistan Shavkat Mirziyoyev emphasized: "Our main goal is to develop technologies that correspond to our national interests, equip the young generation with advanced knowledge, and at the same time preserve our values" (Mirziyoyev, 2022: 54).

This statement underscores the necessity of ensuring harmony between science, technology, and the national mentality in the age of globalization.

In studying the impact of artificial intelligence in Uzbekistan, particular attention should be paid to the distinctive aspects of national values—family unity, respect for elders, and adherence to spiritual and moral principles. These factors serve as the foundation of the national worldview, and protecting them from technological pressure constitutes the core of the present research as a scientific innovation. This article is based on the comparative analysis method. The applications of artificial intelligence in education, healthcare, the economy, and culture are examined through the comparison of international experiences and their adaptation to the context of Uzbekistan. Furthermore, the scientific analysis method is employed to conceptually explore AI's influence on language, values, and national mentality. In addition, elements of systematic analysis and statistical approach are used. For instance, digital transformation indicators from the reports of the Ministry of Higher Education, Science and Innovation of the Republic of Uzbekistan and UNESCO served as the main criteria in assessing AI's impact on the educational sector. Moreover, the comparative analysis includes the experiences of the United States, South Korea, and China. Notably, China has developed special AI ethics codes aimed at protecting national values, while South Korea has made the use of AI tools in the native language mandatory in the education system. These experiences can serve as valuable models for Uzbekistan in developing a national strategy for AI integration that preserves cultural identity.

Today, artificial intelligence (AI) is being applied in all spheres of human life. In education, interactive platforms, distance learning systems, and language learning programs based on AI are widely used. For example, in universities of Uzbekistan, electronic libraries and remote testing systems are being introduced. In medicine, AI technologies are being applied for early disease detection, diagnosis through artificial neural networks, and the development of new methods for drug production. According to the World Health Organization (WHO), early diagnosis of diseases using artificial intelligence demonstrates results 25–30 percent more effective compared to traditional methods (WHO, 2022: 98). This experience is also relevant for Uzbekistan, particularly in creating opportunities to introduce AI-based diagnostic programs in oncology and cardiology. However, in this process, not only technological efficiency but also aspects related to the national mentality become important. For instance, in Uzbek society, trust in a doctor's advice has traditionally been considered a priority, whereas the decisions made by artificial intelligence may reduce the human factor. Therefore, as a scientific innovation, it is necessary to develop special strategies to adapt AI tools to local mental and cultural values.

At the same time, the acceleration of drug development processes through AI could give a strong impetus to the development of the national pharmaceutical industry. In the economy, artificial intelligence assists in ensuring security in the banking system, market analysis, and e-commerce. In culture and art, new creative products are being generated in visual arts, literature, and music. For example, in South Korea, AI is being used to create K-pop music, while in the United States, AI programs are being tested for the development of movie scripts. However, issues of copyright and cultural identity remain relevant in these processes. Therefore, in Uzbekistan, particular caution is required when reprocessing examples of folk oral creativity, classical literature, and national music through AI. Indeed, such processes should not lead to the loss of the national spiritual heritage but should instead contribute to its continuation in a new form. As a new scientific approach, it is possible to develop mechanisms in Uzbekistan for digitizing national oral folklore and creating new content based on it through AI technologies.

This would not only preserve the heritage but also make it modern and engaging for young people. According to American scholar Cal Newport, “Technology should enhance human thinking, not replace it” (Newport, 2016: 45). Thus, in utilizing AI opportunities, human creativity and intellect must remain a priority.

Along with opportunities, AI technologies also generate a number of challenges: Language and cultural risks. If there is an insufficient number of software products in the Uzbek language, young people will be forced to use platforms created in foreign languages. This may undermine the status of the native language (To‘xliyev, 2021: 77).

Dependence and the crisis of thinking. For example, according to a study conducted in Germany in 2023, 46 percent of young people used AI programs to prepare academic texts, yet 32 percent admitted that as a result, their ability to think analytically and independently had decreased (Müller, 2023: 214). A similar situation could also occur in Uzbekistan. Therefore, along with applying AI tools in education, it is essential to introduce mechanisms that develop critical thinking skills. There is a risk that young people will rely more on AI-generated ready answers rather than independent reasoning.

Information attacks. Fake news and manipulations created through artificial intelligence can distort the consciousness of young people (Floridi, 2020: 112). Threats to national values.

Cultural identity, national traditions, and mentality may be eroded under the influence of global digital culture. As the Uzbek writer O‘tkir Hoshimov wrote: “What makes a human being truly human is their heart and their values” (Hoshimov, 2018: 132). Therefore, in the process of technological development, national identity and spirituality must always remain a priority. At this point, the scientific novelty of the article lies in the fact that it not only lists the general risks but also clearly identifies the factors that threaten the unique mental and spiritual image of Uzbek society. In particular, the issues of language status and the loss of independent thinking are considered the most urgent challenges for the future of our nation.

In the era of globalization and artificial intelligence, the following measures are essential for protecting the national mentality. First, it is necessary to develop and widely implement AI products in the Uzbek language. To promote and strengthen the language, software, chatbots, and electronic platforms should be expanded in our native language. Second, young people must be directed toward scientific research and the development of independent analytical skills. In this process, along with the use of AI tools, it is equally important to cultivate critical thinking and information literacy. Third, it is vital to form a culture of proper AI usage among pupils and students and to enhance their information culture. Fourth, through the digitization of literature, historical sources, and samples of folk oral creativity, it is possible to preserve national heritage in a new and modern form. Fifth, within the framework of state policy, it is necessary to develop legal mechanisms that protect national interests in the process of AI technology development and to establish a control system based on ethical principles. In addition, launching joint scientific projects with foreign countries on the ethics of artificial intelligence is one of the promising directions for the future. Through these measures, we can effectively utilize the potential of artificial intelligence while preserving the national mentality. The above analyses show that the rapid development of AI manifests in Uzbek society as a twofold process. While technologies increase efficiency and create new opportunities, they also exert a direct influence on national thought and values. Therefore, this issue should not be addressed solely at the level of technical solutions, but in close connection with strategies for preserving and strengthening national identity.

The scientific results presented in this article demonstrate that if the process of AI application proceeds without regulation, it may lead to serious transformations in language, moral standards, and social consciousness. Hence, the main task for the future is to develop the national mentality while keeping technology human-centered. As a scientific novelty, it should be emphasized that adapting artificial intelligence to the national context is not only a necessity for Uzbekistan but also a factor of competitiveness. Indeed, international experience shows that societies capable of harmonizing technology with their national heritage and values maintain their independent voice in the context of globalization. Thus, future progress will be determined not only by technological innovations but also by scientific policies that can integrate national consciousness and spiritual heritage with the demands of the modern age. Making use of the opportunities offered by artificial intelligence, while preserving national identity as a necessity, constitutes the fundamental condition for successful development in the 21st century.

References

1. Mirziyoyev, Sh. M. The Development Strategy of New Uzbekistan. – Tashkent: Uzbekistan, 2022.
2. Hoshimov, O'. Between Two Doors. – Tashkent: Sharq, 2018.
3. Newport, C. Deep Work: Rules for Focused Success in a Distracted World. – New York: Grand Central Publishing, 2016.
4. Brynjolfsson, E., & McAfee, A. The Second Machine Age. – New York: W.W. Norton, 2014.
5. Kaplan, J., & Haenlein, M. Siri, Siri, in My Hand: Who's the Fairest in the Land? – Business Horizons, 2019.
6. Tukhliyev, B. Language and Culture in the Context of Globalization. – Tashkent: Fan, 2021.
7. Decree of the President of the Republic of Uzbekistan No. PQ-5259, dated October 5, 2021.
8. Floridi, L. The Ethics of Artificial Intelligence. – Springer, 2020.
9. Smith, C. Artificial Intelligence and Ethics. – Cambridge University Press, 2021.
10. Electronic Databases of the National Library of Uzbekistan.
11. UNESCO. Artificial Intelligence and Education: Guidance for Policymakers. – Paris, 2021.
12. Information from the Youth Affairs Agency of Uzbekistan.
13. Reports of the Ministry of Higher Education, Science and Innovation of Uzbekistan, 2023.