

ARTIFICIAL INTELLIGENCE (AI) ERA IN EDUCATION: THE NEW ROLE OF TEACHERS, ETHICAL ISSUES, AND OPPORTUNITIES FOR PERSONALIZED LEARNING**Sharifboyeva Dinora Feruz kizi**2nd year student of the academic lyceum of the Samarkand branch of the Tashkent University of Information Technologies named after Muhammad al-Khwarizmi
ramazonmarufboyev2004@gmail.com

Abstract: Technology is rapidly developing and becoming an integral part of every sphere of human life. Education is no exception. This article analyzes the transformative impact of Artificial Intelligence (AI), particularly generative AI (such as ChatGPT, Gemini, etc.), on the teaching and learning process. The article discusses the role of AI technologies in education, the teacher's new responsibilities, ethical issues, and opportunities for personalized learning through a scientific lens.

Keywords: artificial intelligence, education, generative AI, teacher's role, ethics, personalized learning

INTRODUCTION

In today's era of globalization, artificial intelligence (AI) is penetrating almost all spheres of human activity. The education system is no exception. AI technologies, including generative artificial intelligence systems such as ChatGPT, Gemini, and Copilot, are fundamentally transforming the learning process and reshaping the relationship between teachers and students. According to Presidential Decree PQ:4851 of October 6, 2020, Digital Uzbekistan, 2030, the integration of digital technologies into education has been defined as a strategic priority [1]. From this perspective, AI-based educational systems are becoming an integral part of modern pedagogical approaches.

This article aims to scientifically analyze the teacher's new role, ethical considerations, and opportunities for personalized learning in the age of AI.

MAIN PART**The Role of Artificial Intelligence in Education**

Artificial intelligence enables automation of the teaching process, analysis of students' achievements, and the provision of individualized learning paths. AI-based platforms such as Coursera, Duolingo, Khan Academy, and ChatGPT create convenient environments for self-learning.

The Presidential Decree PF:60 of January 28, 2022, Development Strategy of New Uzbekistan for 2022-2026, identifies the introduction of innovative technologies in education as a key task [2]. Therefore, AI technologies play an important role in increasing the efficiency of modern lessons.

The New Role of the Teacher

AI does not replace teachers but transforms their role. Teachers are no longer merely sources of knowledge but act as guides, analysts, and mentors. According to research (Zawacki-Richter et al., 2019) [3], when AI automates teaching tasks, teachers can dedicate more time to creativity and personal development of students.

Ethical Issues

The use of AI systems raises several ethical concerns, including data privacy, academic integrity, and fairness in assessment. Monitoring students' AI-assisted work, preventing plagiarism, and protecting students' personal data are among today's key priorities [4].

UNESCO's 2023 report "AI in Education" also emphasizes the importance of protecting personal data, ensuring algorithmic fairness, and preparing teachers for new ethical standards [5].

Opportunities for Personalized Learning

AI technologies make it possible to identify each learner's unique learning style, pace, and needs. For example, adaptive learning systems provide personalized tasks for each student, improving overall effectiveness. Research shows that personalized learning can increase student motivation by 25-30% (OECD, 2022) [6].

Prospects for Developing AI-Based Education in Uzbekistan

In recent years, Uzbekistan has seen significant progress toward digital education. For instance, platforms such as Digital Education Uzbekistan, my.edu.uz, and the Knowledge Base Access System integrate AI elements. The Digital Transformation Concept of the Republic of Uzbekistan for 2023-2030 also identifies digital education as a key direction [7].

CONCLUSION

Artificial intelligence is bringing a new perspective to education, reshaping traditional boundaries between teachers and students. With AI technologies, the learning process becomes more efficient, personalized, and interactive. However, ethical issues, information security, and the preservation of the human factor remain priorities.

Uzbekistan's experience shows that proper integration of AI technologies can enhance the quality and competitiveness of education. In the future, collaboration between teachers and AI systems will be essential in creating learner-centered education models.

REFERENCES

- [1] Presidential Decree PQ-4851. "Digital Uzbekistan 2030." October 6, 2020.
- [2] Presidential Decree PF-60. "Development Strategy of New Uzbekistan for 2022–2026." January 28, 2022.
- [3] Zawacki-Richter, O., et al. (2019). *Systematic Review of Research on Artificial Intelligence Applications in Higher Education*. *International Journal of Educational Technology in Higher Education*.
- [4] Floridi, L. (2021). *Ethics of Artificial Intelligence: Key Issues and Values*. Oxford University Press.
- [5] UNESCO. (2023). *Artificial Intelligence and Education: Guidance for Policymakers*. Paris: UNESCO Publishing.
- [6] OECD. (2022). *AI and Personalized Learning Report*. OECD Publications.
- [7] *Digital Transformation Concept of the Republic of Uzbekistan 2023–2030*.