

THE ROLE OF AI IN TEACHING SPHERE

Jahongirova Pokiza

Hasanova Solihabonu

pokizazahongirova@gmail.com

solihahasanova4@gmail.com

Uzbekistan State World Languages University

English philology faculty

Supervisor: **Meyliev. M**

Abstract: This article discusses the role of artificial intelligence (AI) in modern education. It explains how AI technologies help improve teaching and learning processes. The paper focuses on personalized learning, automation, and the use of digital tools such as virtual reality. It also considers some challenges related to the use of AI in education.

Keywords: Artificial Intelligence, Education, Teaching, Learning Technologies, Online Learning, Virtual Reality

РОЛЬ ИИ В ОБРАЗОВАНИИ

Аннотация: В данной статье рассматривается роль искусственного интеллекта (ИИ) в современном образовании. Объясняется, как технологии ИИ помогают улучшить процессы преподавания и обучения. В работе основное внимание уделяется персонализированному обучению, автоматизации и использованию цифровых инструментов, таких как виртуальная реальность. Также рассматриваются некоторые проблемы, связанные с использованием ИИ в образовании.

Ключевые слова: Искусственный интеллект, Образование, Преподавание, Технологии обучения, Онлайн-обучение, Виртуальная реальность

O'QITISH SOHADA SI INING O'RNI

Annotatsiya: Ushbu maqolada sun'iy intellektning (SI) zamonaviy ta'limdagi o'rni muhokama qilinadi. Unda AI texnologiyalari o'qitish va o'qitish jarayonlarini yaxshilashga qanday yordam berishini tushuntiradi. Maqolada shaxsiylashtirilgan o'rganish, avtomatlashtirish va virtual haqiqat kabi raqamli vositalardan foydalanishga e'tibor qaratilgan. Shuningdek, u ta'limda Aidan foydalanish bilan bog'liq ba'zi muammolarni ko'rib chiqadi.

Kalit so'zlar: Sun'iy intellekt, ta'lim, o'qitish, o'qitish texnologiyalari, onlayn ta'lim, virtual haqiqat.

Introduction: Education is rapidly evolving under the influence of digital technologies. One of the most significant innovations in recent decades is artificial intelligence (AI), which has become an essential part of modern educational systems. AI technologies are transforming traditional teaching methods by making them more flexible, efficient, and student-centered ^[1].

The relevance of this topic lies in the growing demand for innovative approaches in education that can meet the needs of diverse learners. Artificial intelligence offers new opportunities for improving the quality of education and increasing accessibility.

The aim of this article is to analyze the role of AI in teaching, identify its main advantages, and examine the challenges associated with its implementation. The objectives include exploring personalized learning, automation, and digital tools in education.

One of the key advantages of artificial intelligence in education is personalized learning. AI systems can analyze students' performance, learning styles, and progress, allowing them to adapt educational content to individual needs. For example, if a student struggles with a particular topic, the system can provide additional materials, exercises, and explanations tailored to their level ^[2]. This approach helps students learn at their own pace and significantly improves learning outcomes.

Another important aspect of AI is automation. Teachers often spend a considerable amount of time on routine tasks such as grading assignments, checking tests, and preparing materials. AI-powered tools can automate these processes, providing quick and accurate feedback to students ^[3]. As a result, teachers can focus more on interactive teaching methods, communication, and creative activities.

Artificial intelligence also plays a crucial role in the development of online learning platforms. Many educational platforms use AI algorithms to recommend courses, create personalized study plans, and track student progress. In addition, virtual assistants and chatbots are available 24/7 to answer students' questions, which makes learning more accessible and flexible, especially in distance education.

Moreover, modern technologies such as virtual reality (VR) and augmented reality (AR) are becoming increasingly popular in education. These tools provide immersive learning experiences that enhance student engagement. For instance, students can explore historical sites, conduct virtual laboratory experiments, or simulate real-life situations. Such interactive methods make learning more effective and memorable ^[5].

Despite its numerous advantages, the integration of AI into education presents several challenges. One of the main issues is the digital divide. Not all educational institutions have equal access to advanced technologies, which creates inequality in learning opportunities.

Another significant concern is data privacy and security. AI systems collect and analyze large amounts of student data, raising ethical questions about how this information is stored and used. Improper handling of data may lead to serious consequences ^[4].

Furthermore, excessive reliance on technology may reduce human interaction in the learning process. While AI can support teaching, it cannot fully replace the role of a teacher, who provides emotional support, motivation, and social interaction.

Conclusion: In conclusion, artificial intelligence plays a crucial role in modern education by improving teaching and learning processes. It enables personalized learning, automates routine tasks, and enhances educational experiences through innovative technologies. However, it is important to address existing challenges to ensure the effective and responsible use of AI.

References

1. Holmes, W., Bialik, M., & Fadel, C. (2019). Artificial intelligence in education: Promises and implications for teaching and learning. Center for Curriculum Redesign.
2. Luckin, R. (2018). Machine learning and human intelligence: The future of education. UCL Institute of Education Press.
3. Russell, S., & Norvig, P. (2021). Artificial intelligence: A modern approach (4th ed.). Pearson.
4. Selwyn, N. (2019). Should robots replace teachers? AI and the future of education. Polity Press.
5. UNESCO. (2021). AI and education: Guidance for policy-makers. UNESCO Publishing.
6. Sobirova, F. I. (2025, March). Neyrolingvistikada nutqiy ta'sir. Лучшие интеллектуальные исследования, 41(2).
7. MEYLIYEV, M. (2024). INGLIZ VA O'ZBEK TILLARIDA POLIMER TERMINLARINING FAOL SO'Z YASALISH USULLARI. «ACTA NUUZ», 1(1.1), 260-263.
8. Meyliyev, M. . (2025). METHODS OF ACTIVE WORD FORMATION OF POLYMER TERMS IN ENGLISH AND UZBEK LANGUAGES. Универсальная индексная библиотека Евразийского журнала академических исследований, 4(12 Special Issue), 267–270. извлечено от <https://lib.uniconflict.com/index.php/uilejar/article/view/45103>