ARTIFICIAL INTELLIGENCE AS AN INNOVATIVE PEDOGOGICAL TOOL IN MODERN EDUCATIONAL CONTEXT

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ANNOTATSIYA

Ushbu maqolada suniy intellektning zamonaviy ta'limda pedagogik vosita sifatidagi juda muhim roli va o'qituvchilar faoliyatini yanada samarli tashkil qilishdagi ahamiyati haqida kerakli ma'lumotlar berilgan. Shuningdek maqolada o'quvchilarning muvofaqiyatlarini kuzatib borish hamda o'quv faoliyatdagi nazoratlarni samarali yo'lga qo'yishda suniy intellektning imkoniyatlari to'g'risida muhim usullar keltirib o'tilgan.

KALIT SO'ZLAR

Sun'iy intellekt, tahliliy yondashuv, so'rov metodikasi, ta'lim vositalari, optimallashtirish, o'quvchiga yo'naltirilgan ta'lim, ta'lim platformalari, ta'lim mazmuni, o'quv dasturlarini loyihalash, innovatsion ta'lim.

АННОТАЦИЯ

В статье представлена необходимая информация о чрезвычайно важной роли искусственного интеллекта как педагогического инструмента в современном образовании и его значении для более эффективной организации деятельности учителей. В статье также освещаются важные методы мониторинга успеваемости учащихся и потенциал искусственного интеллекта в эффективном осуществлении контроля в образовательной деятельности.

КЛЮЧЕВЫЕ СЛОВА

Искусственный интеллект, аналитический подход, методология опроса, образовательные инструменты, оптимизация, обучение, ориентированное на обучающегося, образовательные платформы, образовательный контент, разработка учебных программ, инновационное образование.

ABSTRACT

The article provides essential information about the extremely important role

KEYWORDS

Artificial intelligence, analytical approach, survey

of artificial intelligence as a pedagogical tool in modern education and its importance for more effective organization of teachers' activities. The article also highlights important methods for monitoring student performance and the potential of artificial intelligence in effective control in educational activities.

methodology, educational tools, optimization, learner-Centered instruction, educational platforms, educational content, curriculum design, innovative Education.

INTRODUCTION: In today's modern world, artificial intelligence (AI) is increasingly becoming a vital and widely applied tool across various fields. One of the key areas where AI can be effectively utilized is in the enhancement and optimization of educational processes. AI has the potential to personalize learning experiences by adapting instruction to the individual needs of each student. Moreover, it is being employed in teaching, performance analysis, knowledge assessment, automating routine tasks, and developing new methods of evaluation — such as grading tests and assignments.

Experts at the University of Cambridge have identified the growing integration of AI technologies as one of the leading EdTech trends of 2023. According to some forecasts, the global market for AI technologies in education is expected to grow at an average rate of 36.6% by the year 2030.

There are several key directions in which AI is being applied in the learning process:

1. Automation of routine tasks;
2. Personalization of instruction;
3. Development of content and curriculum;
4. Enhancement of soft skills.

LITERATURE REVIEW:

1. In the article titled “Artificial Intelligence in Education: Challenges, Opportunities, and Prospects”[1] by A.V. Diachkova, the author examines the potential applications of artificial intelligence (AI) in the educational sector. The article analyzes both the opportunities and the challenges that educational institutions face when integrating AI technologies into their teaching and learning processes. Particular attention is given to the future prospects of AI development in education and its impact on students, teachers, and other stakeholders in the learning environment. Based on the conducted analysis, the author concludes that while AI holds significant potential for improving educational outcomes and student

[1] Немытых, С. Л., & Дьячкова, А. В. (2023). Искусственный интеллект в образовании: вызовы, возможности, перспективы. *Российские регионы в фокусе перемен: сборник докладов.—Екатеринбург, 2023*, 433-435.

achievements, its successful implementation requires addressing a number of ethical and social issues. In conclusion, the article emphasizes the necessity of establishing appropriate infrastructure for the effective realization of AI's potential in education.

2. In the article titled “Artificial Intelligence: Opportunities and Limitations in Education”[2] by Ye.N. Tkochenka, the author explores the challenges associated with the integration of AI technologies into the educational process. Drawing upon a review of foreign academic publications, the paper defines the essence of AI and outlines the opportunities it offers to both teachers and students within the framework of educational practice. The article highlights that AI competencies have become one of the key technological skills of the 21st century. Individuals equipped with AI-related skills are generally able to critically assess digital technologies, communicate and collaborate effectively using them, and apply these tools in both professional and personal contexts. The author presents and analyzes the European framework for teachers’ digital competence based on the DigCompEdu platform. The study concludes that AI can significantly facilitate the work of teachers and support students in creatively solving educational problems. However, it is also noted that for educators to take full advantage of the benefits offered by AI, they must enhance their pedagogical and technological competencies and work towards creating supportive educational conditions.

RESEARCH METHODOLOGY:

This study employed two primary research methods: the analytical method and the survey method.

Analytical Method: Through the analysis of existing literature and previous research on the topic, relevant insights were obtained regarding the significant role of artificial intelligence (AI) as a pedagogical tool in modern education. This method facilitated an in-depth understanding of how AI contributes to enhancing the effectiveness of teachers' professional activities.

Survey Method: Surveys were conducted among teachers and students to gather their perspectives on the integration of AI in the educational process. Based on the results of observations and survey responses, several important conclusions were drawn during the research.

Together, these methodologies allowed for a more comprehensive exploration of the issue and demonstrated the relevance and potential of artificial intelligence in contemporary educational practices.

RESULTS AND ANALYSIS:

[2] Ткаченко, Е. Н. (2023). Искусственный интеллект, возможности и ограничения его использования в образовании. *Путеводитель предпринимателя*, *16*(3), 57-62.

While it may seem like a simple tool for identifying grammar, typing errors, and missing punctuation, Grammarly is, in fact, one of the most effective AI tools available to teachers for enhancing written communication. The platform goes beyond basic proofreading and includes advanced AI-powered features such as built-in suggestions, feedback, brainstorming assistance, and a citation generator with precise formatting.

All that is required is to copy and paste the text or upload a document, and then review Grammarly's suggestions concerning clarity, correctness, and style. Additionally, users can input a prompt or instruction into the Generative AI field, or simply click on one of the available options to revise or enhance a given text or student work.

CONCLUSION:

Today, artificial intelligence (AI) is increasingly becoming an integral part of the educational process. Its application as an innovative pedagogical tool plays a crucial role in organizing the learning process more efficiently, promoting learner-centered education, and enhancing both the quality and effectiveness of teaching and learning outcomes. AI-powered tools enable educators to tailor lessons, distribute educational resources effectively, and implement individualized approaches.

Moreover, AI technologies offer the potential to automate learning processes, provide learners with real-time analysis and recommendations, and facilitate more convenient and interactive independent learning. Such technologies are especially significant in the advancement of remote and hybrid forms of education.

AI is also being utilized in critical areas of education such as data security, personalized learning, and intelligent analytics, thereby contributing to the formation of a new educational model for future generations. Thus, the integration of artificial intelligence into modern educational practices enriches the pedagogical process with innovative approaches and plays a vital role in increasing educational efficiency and advancing scientific research to a new level.

REFERENCES

1. Немытых, С. Л., & Дьячкова, А. В. (2023). Искусственный интеллект в образовании: вызовы, возможности, перспективы. *Российские регионы в фокусе перемен: сборник докладов.—Екатеринбург, 2023*, 433-435.
2. Ткаченко, Е. Н. (2023). Искусственный интеллект, возможности и ограничения его использования в образовании. *Путеводитель предпринимателя*, *16*(3), 57-62.
3. Davronov, A. A. (2023). DEVELOPMENT OF CREATIVE COMMUNICATIVE SKILLS OF FUTURE EDUCATORS-AS A

PEDAGOGICAL PROBLEM. *Web of Teachers: Inderscience Research*, *1*(9), 217-222.

4. Davronov, A. A. (2023). Development of Creative Communicative Skills of Future Educators. *Pedagogical Cluster-Journal of Pedagogical Developments*, *1*(2), 391-397.
5. Davronov, A. (2023). The role of profiling methods in creating the emotional environment of the adolescent person. *Science and innovation*, *2*(B5), 204-207.
6. Nurmamatov, S., & Davronov, A. (2022). Practical significance of profiling methods in pedagogical psychodiagnostics. *Science and innovation*, *1*(B8), 1224-1227.
7. Omonovich, X. D., & Pirmamatovna, I. G. (2021). PEDAGOGIK TEXNIKANI SHAKLLANTIRISH USLUBLARI VA UNING PSIXOLOGIK XUSUSIYATLARI. *Oriental renaissance: Innovative, educational, natural and social sciences*, *1*(5), 580-586.
8. Khimmataliev, D., & Ernazarova, M. (2023). FORMATION AND DEVELOPMENT OF PRACTICAL SKILLS IN PRIMARY CLASS STUDENTS BASED ON CLUSTER APPROACH. *Science and innovation*, *2*(B11), 484-487.