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# The teacher in the era of artificial intelligence

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**Abstract.** The era of artificial intelligence has transformed the role of the teacher and opened new horizons in the field of education. This article examined the key challenges and opportunities faced by future educators. It also presented examples of how artificial intelligence has been integrated into educational processes, the findings of studies on the impact of technologies on pedagogical practice, historical aspects of technological development in education, an analysis of the results of a teacher survey, and recommendations for the implementation of AI in educational institutions. As part of the study, a survey was conducted among 207 teachers in Kyrgyzstan to assess their experience with and attitudes towards the use of artificial intelligence tools. The results showed that 67% of teachers actively used such tools in their practice, while 76% were willing to further develop their expertise in this area. The study emphasised the potential of artificial intelligence to enhance teaching and student engagement. At the same time, it identified significant barriers such as the lack of access to education and digital inequality, which are particularly relevant in rural areas. These issues highlight the need for teacher training programmes, ethical use of technology, and equitable access to digital resources. The study illustrated the evolving demands placed on educational institutions in response to technological shifts in teaching and learning practices. The findings offer key insights for practitioners and policymakers in the education sector. They also provide a foundation for updating educational programmes and improving digital literacy

**Keywords:** era of artificial intelligence; education; teacher's role; educational technologies; challenges; educational environment

## INTRODUCTION

The development of artificial intelligence (AI) has led to fundamental transformations in the education system. The role of the teacher has extended beyond the confines of traditional instruction to encompass mentorship and moderation. Therefore, it has become necessary to reconsider the training of future teachers in light of new challenges and opportunities (Dubovyk, 2024). The application of AI requires more than just technological proficiency; it also demands attention to ethical and pedagogical dimensions. Educators working with Generation Z and Alpha are expected to cultivate critical thinking and creativity while fostering respectful and collaborative relationships with learners. Mastery of digital tools and the appropriate use of AI technologies represent a significant responsibility for teachers.

Globally, the education system is undergoing large-scale transformation. In particular, the rapid development of AI technologies is altering the content, formats, and methodologies of teaching (Kiryanova, 2024). As noted by A. Vieriu & G. Petrea (2025), AI offers new opportunities in education such as automating information processing, enabling personalised instruction, real-time tracking of student progress, and enhancing the evaluation of learning outcomes. Although these technologies create the potential

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to improve quality, their successful application is directly linked to the preparedness and acceptance of teachers.

The rapid advancement of AI in the educational sector is redefining the role of the teacher. Statistics show the widespread integration of AI in educational practice: for instance, a study by ArtSmart (2024) indicated that 89% of students had used ChatGPT for exam preparation, while 50% of teachers had utilised AI tools for lesson planning. The growing use of AI in education compels educators to reconsider their adaptability and preparedness for such technologies. Recent studies demonstrate that AI is indeed reshaping the role of the teacher in education systems. For example, the World Economic Forum (2025) proposed viewing teachers as "architects of learning," collaborating with AI to provide individualised support for each student. Despite the fact that 50% of teachers reported using AI tools for lesson planning, 70% of them expressed concerns about AI's potential impact on deep understanding and spiritual values, such as those rooted in Platonism (ArtSmart, 2024). Similarly, Education Week (2023) evaluated both the capacity of AI to assist teachers and the risk that it might replace them. S. Grassini (2023) noted in his 2023 article that while ChatGPT can be useful in education, issues such as data confidentiality must not be overlooked.

In Kyrgyzstan, the use of AI remains at an early stage, making it particularly important to scientifically assess teachers' attitudes, practical experience, and willingness to engage with this technology. This study serves as a valuable source of information for educational institutions, policymakers, and stakeholders interested in implementing AI tools. The research focused on analysing teachers' readiness to use AI, their attitudes toward the technology, and their experiences of it. It also aimed to identify the main difficulties, benefits, and development prospects associated with AI use, thus assessing its impact on the educational system. The study addressed the following core issues: identifying the key challenges and opportunities associated with AI implementation in education; analysing examples of AI integration in different national education systems; exploring the impact of digital inequality on access to educational technologies; and offering recommendations for the effective use of AI in educational institutions.

## LITERATURE REVIEW

A number of studies have been conducted in Kazakhstan concerning the integration of artificial intelligence technologies into the education system, analysing both their advantages and challenges. For example, A. Davletova (2024) in her research highlighted the role of AI in enhancing efficiency in education, enabling personalised instruction, and facilitating the development of innovative teaching methods. She also drew attention to ethical issues and the risk of diminishing interpersonal connections that may arise from the use of AI technologies. Another study by A. Mambetalieva & A. Turalbaeva (2022) explored the significance of applying AI elements in the context of primary education. The authors observed that, although many teachers possess theoretical knowledge of AI, they often experience difficulties in practical application. They emphasised that both the technical infrastructure of schools and the practical preparedness of teachers are critical factors for successful implementation of these technologies.

In Kyrgyzstan, interest in employing AI technologies in education has also grown, and special training courses for teachers have been introduced. For instance, in Bishkek and regional areas, lectures have been organised on how to apply AI in educational settings, with a focus on integrating new technologies into pedagogical practice (Ministry of Education, 2024). However, the lack of adequate training, weak infrastructure, and digital inequality continue to hinder full-scale implementation of AI. The research recommends ways to enhance teachers' competencies in working with AI and evaluates their readiness to adopt these tools. The article further analyses opportunities to improve teaching practices using AI while also mitigating associated risks.

Teachers are adopting various strategies to adapt to AI. In order to use AI tools effectively, they are acquiring both technical and pedagogical knowledge. For example, McKinsey (2020) recommended redefining teachers' roles as mentors and moderators, thus improving the quality of their work. Teachers have been using AI for lesson planning, student assessment, and tailoring instruction to individual needs. Their findings suggest that the use of AI has prompted a shift towards more personalised instructional approaches. Research by F. Karataş *et al.* (2024) confirmed that AI allows for greater flexibility in curriculum content. Nevertheless, ethical issues related to the application of AI in education remain a serious concern. These include the protection of personal data, the potential for biased outcomes, and inequalities in access to technology among teachers and students. Although N. Ghamrawi *et al.* (2023) acknowledged that AI can expand teachers' leadership capacities, their study also warned that over-reliance on such technologies could limit certain decision-making processes. They emphasised the need for a cautious and critical approach to AI use in education.

The above-mentioned studies confirm that the integration of AI into the education sector is closely linked to the evolving role and competencies of teachers. According to HolonIQ (2023), 25% of organisations successfully implemented AI in 2022; however, this trend demands specific training and the development of technological skills among educators. A study by RAND (2025) showed that one in four teachers in the United States had used AI in lesson planning, while the figure was significantly higher (60%) among school principals. These findings underscore the importance of providing teachers with sufficient methodological and technical support. Child Trends (2024) has promoted the use of AI as a valuable tool for forecasting student achievement but also highlighted that its effectiveness depends directly on the level of specialised training teachers receive.

Taken together, these findings indicate that improving teachers' technological literacy and ensuring continuous

support are essential for the successful integration of AI into the educational process. Current trends point to the need for high-quality teacher training and the provision of adequate technological resources. Therefore, it is vital for the education system to develop effective initiatives aimed at enhancing teachers' skills and knowledge. Such efforts should include updating curricula and improving digital infrastructure. Only under these conditions will teachers be able to fully leverage the potential of modern technologies and deliver high-quality education to students.

## MATERIALS AND METHODS

This article employed a mixed-methods approach to analyse teachers' experiences with artificial intelligence. The research methodology was based on empirical principles and combined both qualitative and quantitative techniques. The primary research instrument was a survey (questionnaire), designed to assess teachers' readiness, experience, and attitudes towards the use of AI technologies, evaluate the impact of AI in education, and identify strategies for teacher adaptation to this technology. The central aim of the study was to investigate teachers' preparedness to use AI, their perceptions of the technology, and their hands-on experiences with it. The survey questions were developed to explore difficulties in using AI (such as digital inequality or data confidentiality), perceived conveniences, and developmental opportunities.

The survey was conducted between January and March 2025 among teachers working in educational institutions across various regions of Kyrgyzstan. It covered participants from a diverse range of educational settings – urban and rural schools, and institutions of primary, secondary, and higher education. A total of 300 teachers were invited to participate via email and social media, with 207 completing the survey in full, resulting in a 70% response rate. Participants were selected using a voluntary sampling method, with access obtained through professional networks and educational institutions. In addition to the survey, in-depth interviews were conducted with 12 teachers to provide a more nuanced understanding of individual experiences and recommendations.

The questionnaire was developed based on a review of the latest literature in the field of AI in education (Zawacki-Richter *et al.*, 2019; Holmes *et al.*, 2019). It consisted of ten questions: Likert-scale items measured teachers' attitudes towards AI, multiple-choice questions assessed current usage and future intentions, and open-ended questions were included to collect qualitative insights. The survey was administered electronically using the Google Forms platform. It was conducted during non-instructional hours (e.g., during teachers' free time). Participation was voluntary, with respondents being informed about the study's purpose and assured of the confidentiality of their data. Categorical responses were analysed using descriptive statistics via SPSS software. The responses to open-ended questions were examined through thematic analysis to identify the study's key topics. These methods enabled the achievement of the research objectives. The study was conducted in accordance with ethical standards for research involving human participants (ASA Code of Ethics, 2018). All participants were informed about the research objectives, guaranteed the confidentiality of their responses, and participated with full consent.

## RESULTS AND DISCUSSION

### Examples of AI application in educational practice

The development of educational technologies has progressed through several major stages (Table 1):

***Table 1.*** *The main stages of development of educational technologies*

| Stage | Technology | Impact |
|---|---|---|
| Emergence of printed materials | Books and printed materials | The integration of books and printed materials into the learning process marked the first significant step towards standardising education. |
| Use of audio and video materials | Films, audio recordings | By the mid-20$^{th}$ century, films and audio recordings began to be actively used as teaching tools. |
| Computer era | Computers, digital libraries | By the end of the 20$^{th}$ century, computers became an integral part of school and university life, enabling access to digital libraries and e-courses. |
| Internet and distance learning | Online courses, platforms | In the 2000s, online courses and platforms started being widely used for distance education. |
| AI in education | Artificial intelligence | Today, AI is used for personalised learning, data analysis, and automation of routine educational tasks. |

***Source:*** *compiled by the authors*

These developments demonstrate that technology has gradually become an integral part of the educational process and has helped to align teaching practices with contemporary demands. The integration of artificial intelligence into education is occurring on a global scale, with various countries developing implementation strategies tailored to their own cultural and economic contexts. These global examples may serve as a valuable reference for the development of effective strategies in Kyrgyzstan. In the United States, platforms such as Carnegie Learning and Khan Academy harness the power of AI to adapt to students' learning levels. For instance, the MATHia (n.d.) platform analyses student performance and automatically adjusts learning materials to match individual needs. In China, Squirrel AI (n.d.) uses AI to provide personalised tutoring services to millions of students, serving as a prime example of scalability. In Finland, AI is used to analyse student work and customise learning pathways accordingly

(Education in Finland, n.d.). In Kyrgyzstan, several schools have begun introducing experimental platforms aimed at distance education and student data analysis (Institute for Political Studies, 2025). In Russia, projects are actively being developed to introduce chatbots and automated assessment platforms to support student learning (Zenkina *et al.*, 2022). These examples demonstrate how different countries are adapting AI technologies to their educational systems while taking into account specific cultural and economic features.

Widespread examples of integrating AI into educational practice illustrate how the learning process is being transformed in several dimensions, improving efficiency and responsiveness to individual needs. For example, in the context of personalised learning, platforms such as Khan Academy, Moodle, and Google Classroom analyse students' assignments and activities to offer content that aligns with their learning levels. At the same time, systems like Quizizz, Kahoot, and Onlinetestpad automate routine tasks such as testing and grading, thereby allowing teachers to dedicate more time to creative and mentoring activities.

In many schools, virtual assistants powered by AI, such as ChatGPT or Gemini, are being used to respond promptly to students' questions regarding course materials. Additionally, AI technologies are used in content generation, automating the creation of tests, assignments, and essays, which helps adapt the learning process to the evolving needs of student groups and facilitates the development of personalised learning programmes. Furthermore, performance analysis systems powered by AI accurately identify students' strengths and weaknesses and can forecast their future performance based on prior data. These examples reflect the growing role of artificial intelligence in the education sector, illustrating its practical value in both personalising and automating the teaching and learning process.

**Research on the impact of artificial intelligence on the educational process**

A 2023 study conducted by Stanford University examined the impact of AI-powered adaptive platforms, particularly a tool called *Tutor CoPilot*, on student performance (Stanford's AI-Assisted Tutoring Study, 2023). The study involved more than 1,000 students and over 900 tutors and confirmed that tutors using AI increased students' mathematics achievement by 9%. This improvement was especially significant for students with lower initial academic performance, as they received personalised support. Studies conducted in Europe also confirmed the positive impact of AI in education, particularly its contribution to reducing educational disparities. For example, research by the Inspired Education Group (2023), conducted across five international schools, demonstrated that AI technologies improved student achievement by 8.12 percentage points – equivalent to a full grade level. The study also found that 84.50% of students believed their learning and development improved with AI support, while 80.18% of teachers agreed with this assessment.

AI has been recognised as a powerful tool for enhancing student engagement and learning outcomes. For instance, a meta-analysis conducted in 2025 by A. Tlili *et al.* (2025) demonstrated the positive effects of AI tools – particularly intelligent tutoring systems – on academic performance. These studies reported that AI is most effective when tailored to individual student needs. Most of the studies employed both quantitative and qualitative methods, including meta-analysis, systematic literature reviews, and randomised controlled trials (Table 2). For example, the Stanford study was a large-scale randomised controlled trial involving over 1,000 students, while the Inspired Education Group's analysis was based on data from five schools. Reports by the European Commission (2022) focused on ethical issues and the broader use of AI in education.

***Table 2.*** *Comparative overview of studies*

| Study Title | Institution | Year | Improvement in Achievement | Main Focus |
|---|---|---|---|---|
| Tutor CoPilot: Stanford's AI-Assisted Tutoring Study (2023) | Stanford University | 2023 | 9% | Student achievement in mathematics |
| Inspired Education Group (2023) | Inspired Education Group | 2023 | 8.12% (grade level equivalent) | Overall student academic performance |
| A. Tlili *et al.* (2025) | Academic Journal | 2025 | Positive impact, no exact % | Improvement of learning outcomes |
| European Commission (2022) | European Commission | 2022 | No exact %, positive impact | Ethical use and effectiveness of AI |
| C. Wan & Z. Hu (2023) | Academic publication | 2023 | Influence on creativity | Project-based learning with AI |
| X. Xie (2023) | Academic publication | 2023 | 10% improvement | Effects of AI-driven visualisation on learning |

***Source:*** *compiled by the authors*

Studies from Russia and Kyrgyzstan have shown that the use of chatbots and adaptive systems can reduce teachers' workloads and increase student motivation (Nurkulova, 2021; Zenkina *et al.*, 2022). However, these developments are not without risks. Over-reliance on automated systems may lead to a decline in students' intrinsic motivation. Furthermore, ensuring the protection of student data and transparency of algorithms is essential, while unequal access to technology may exacerbate educational inequalities.

Digital inequality remains one of the core challenges in the era of artificial intelligence. In rural and remote areas, stable internet connections and modern devices are often lacking, creating disparities in access to technology. Not all families can afford to purchase computers or

subscribe to educational platforms. Additionally, the absence of technological skills among some students and teachers further intensifies the problem. Many educational platforms are developed exclusively in English, which limits accessibility for certain population groups. To overcome digital inequality, it is necessary to implement targeted support programmes for low-income families, improve digital infrastructure, and promote digital literacy training. These measures are crucial to ensuring equitable access to AI-driven educational opportunities across different social and geographic groups.

**Preparing future teachers to work with AI**

A modern teacher is expected to possess not only subject-specific knowledge but also digital literacy, critical thinking, and the ability to interact effectively with technology. Key aspects of the teacher's role now include mentorship, knowledge facilitation (moderation), and the support of students' emotional intelligence. Teachers help students develop their analytical and critical thinking skills by teaching them to interpret information accurately and make informed decisions. Moreover, teachers should foster students' interest in acquiring new knowledge and motivate them toward independent learning. AI training courses help teachers understand how AI systems function and how these systems can be effectively integrated into the teaching process. Training in digital ethics equips teachers with an understanding of data confidentiality and cybersecurity. Flexibility and adaptability are essential skills for preparing educators to cope with constant changes in both technologies and instructional methods. Future teachers must understand how to safeguard students' data and be able to critically evaluate and choose only reliable technologies. Ethical guidelines from the European Commission (2022) provide essential support in this area. It is also important to consider psychological dimensions, as AI must be used in a way that preserves student trust and motivation (European School Education Platform, 2024).

The findings of this study confirmed that teachers are generally well-prepared to use AI in the educational process. According to the survey, 67% of respondents supported the integration of AI tools into teaching, indicating a broad level of acceptance. Furthermore, 76% of teachers expressed a willingness to develop their expertise in this field, demonstrating their motivation for professional growth. The teachers' perceptions of their experience using AI were also largely positive: 59% reported that AI had made their work more engaging and easier while unlocking new opportunities. The ability to automate creative tasks was seen as a time-saving advantage, enabling teachers to devote more time to interacting with students. Considering the overall usefulness of AI, 85% of teachers believed that it introduced new methods, efficiencies, and improvements to education. These results demonstrate that teachers recognise the potential of AI and accept its growing role in the educational sphere (Table 3).

***Table 3.*** *Survey on the use of artificial intelligence in education: teachers' perspectives and experiences*

| Aspect | Percentage |
|---|---|
| I support the use of AI in making pedagogical decisions | 67.3% |
| The teacher should act as a mentor and motivator when using AI | 59% |
| I am willing to learn how to use AI | 76.9% |
| The impact of AI on the future of education will bring benefits and improvements | 84.6% |
| Courses and seminars on AI are needed | 46.9% |
| I expect methodological guidelines and learning materials on AI | 30.4% |

***Source:*** *compiled by the authors*

The results clearly demonstrate teachers' positive attitudes toward artificial intelligence, but also indicate the need for comprehensive training programmes to support their preparedness. The application of AI in education must be accompanied by strict adherence to ethical standards. Foremost among these is the demand for transparency in the logic and principles behind algorithmic operation, enabling every participant to understand the functionality and implications of the tools they use (Razin, 2019). Methodologies for evaluating effectiveness must strive to avoid bias and ensure fair assessment of rights and opportunities across different groups, thus ensuring the integrity and equity of educational outcomes.

Furthermore, for the effective and fair use of AI, the rights of all individuals within the educational system must be fully respected. This includes ensuring the safety and autonomy of students, teachers, and other participants. To implement these principles, developers and regulators must work together to create environments grounded in legal, technical, and pedagogical standards. Such coordinated efforts will enable AI to enhance fairness, transparency, and trust in educational processes (OECD, 2024). Digital inequality also requires careful attention: schools and regions with limited access to technology must be supported in order to successfully implement AI. Recommendations for educational institutions:

1. Needs assessment: conduct an analysis of the current state of teaching and identify areas where AI can provide the most benefit.

2. Teacher qualification enhancement: organise training programmes that combine technical competencies and pedagogical approaches to AI integration.

3. Ethical integration: promote discussion of ethical issues related to AI use, such as data confidentiality and algorithmic transparency.

4. Pilot projects: test AI solutions in selected classrooms or courses before broader implementation.

5. Feedback mechanisms: establish systems for collecting input from both teachers and students regarding their experiences with AI.

6. Bridging digital inequality: implement initiatives to support low-income families, improve digital infrastructure, and promote digital literacy.

In addition, the role of the teacher in the AI era is shifting towards that of mentor and moderator. Teachers must acquire digital literacy, critical thinking skills, and the ability to engage meaningfully with technology (Bozhovich, 2023). By addressing these challenges and implementing strategic measures, Kyrgyzstan can harness the potential of AI to improve educational quality and promote equity within its education system.

## CONCLUSIONS

The era of artificial intelligence (AI) presents new challenges while simultaneously opening up significant opportunities for future educators. In the context of digital transformation, it is essential to reassess teaching methods and teacher training in order to ensure successful learning outcomes. Only the synergy between technology and humanistic values will allow the creation of a harmonious educational environment for the future. The preparation of future teachers must be oriented towards combining technological competence with humanitarian values, while their ability to work with AI must be grounded in principles of ethics, equity, and innovation. The findings of this study confirmed teachers' positive attitudes and readiness to use AI in education. However, the effective integration of AI into the education system requires the provision of additional resources and methodological support. The successful application of artificial intelligence in education depends on a harmonious balance between technological advancement and human-centred values. This balance is key to preparing future teachers to operate effectively in digitally transformed environments and to contribute to educational systems based on fairness, innovation, and inclusivity. AI represents a tool for unlocking educational potential, while the teacher remains the leader who uses this tool responsibly to shape future generations.

From a practical standpoint, the integration of AI into the education system calls for further support in terms of resources and pedagogical guidance. Teachers strive to align their professional experience with modern technologies through updated curricula, virtual training, and digital platforms. Previous statistical data and current research consistently highlight teachers' favourable attitudes towards the use of AI and demonstrate the practical significance of these technologies. AI has been shown to improve student outcomes and enhance the inclusiveness and versatility of educational systems. Moreover, future research should focus on a deeper analysis of the societal and ethical dimensions of AI technologies. This includes examining how teachers can optimise instructional strategies, address safety and equity concerns, and explore the ethical implications of technological deployment. The direction of future studies should centre on empowering teachers to enrich the educational process through innovative methods while preserving a balance between human values and technological advancements. The outcomes of this study offer practical guidance for education administrators and teachers, supporting the revision of strategies and the modernisation of teaching practices for the future.

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# Жасалма интеллект доорундагы мугалим

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**Аннотация.** Жасалма интеллект доору мугалимдин ролун өзгөртүп, билим берүү тармагында жаңы горизонтторду ачып жатат. Бул макалада келечектеги мугалимдердин алдында турган негизги көйгөйлөр жана мүмкүнчүлүктөр каралат. Ошондой эле билим берүү процесстеринде жасалма интеллектти колдонуунун мисалдары, технологиялардын билим берүү практикасына тийгизген таасири боюнча изилдөөлөрдүн натыйжалары, билим берүүдөгү технологиялардын өнүгүүсүнүн тарыхый аспектилери жана мугалимдер арасында жүргүзүлгөн сурамжылоонун жыйынтыгына талдоо көрсөтүлүп, билим берүү мекемелерине жасалма интеллектти киргизүү боюнча сунуштар берилди. Изилдөөнүн алкагында Кыргызстандагы 207 мугалимдин арасында сурамжылоо жүргүзүлүп, алардын жасалма интеллекттин аспаптарын колдонуу тажрыйбасын жана мамилесин баалоо максатында жүргүзүлдү. Жыйынтыктар көрсөткөндөй, мугалимдердин 67% мындай аспаптарды өз практикасында активдүү колдонушат, ал эми 76% бул тармакта өз тажрыйбаларын өнүктүрүүгө даяр. Изилдөө жасалма интеллекттин окутууну жана студенттердин катышуусун жакшыртуу үчүн потенциалын баса белгилейт. Ошону менен бирге, билим алуу мүмкүнчүлүктөрүнүн жоктугу жана санариптик теңсиздик, өзгөчө айыл жергесиндеги тынчсыздануулар сыяктуу олуттуу тоскоолдуктар да аныкталды. Бул көйгөйлөр мугалимдерди даярдоо программаларын иштеп чыгуу, технологияларды этикалык колдонуу жана санариптик ресурстарга бирдей жеткиликтүү болуу зарылчылыгын көрсөтөт. Жүргүзүлгөн изилдөө учурдагы технологиялык өзгөрүүлөрдү сабак өтүүдө, практикада чагылдырып билим берүү мекемелерине болгон талаптардын өзгөрүшүн көрсөтөт. Макалада келтирилген натыйжалар практиктер жана билим берүү саясатын иштеп чыгуучулар үчүн маанилүү багыттарды сунуш кылат. Изилдөөнүн жыйынтыктары мугалимдерди жаңы шарттарда окутуу жана колдоо механизмдерин өнүктүрүү зарылдыгын көрсөтөт. Ошондой эле билим берүү программаларын жаңылоо жана санариптик сабаттуулукту жогорулатуу боюнча сунуштарды иштеп чыгууда колдонууга ылайыктуу

**Негизги сөздөр:** жасалма интеллект доору; билим берүү; мугалимдин ролу; билим берүү технологиялары; көйгөйлөр; билим берүү мейкиндиги

# Учитель в эпоху искусственного интеллекта

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**Аннотация.** Эпоха искусственного интеллекта трансформирует роль учителя и открывает новые горизонты в сфере образования. В данной статье рассмотрены основные проблемы и возможности, с которыми сталкиваются будущие учителя. Также были представлены примеры использования искусственного интеллекта в образовательных процессах, результаты исследований влияния технологий на образовательную практику, исторические аспекты развития технологий в образовании, анализ результатов опроса, проведенного среди педагогов, и даны рекомендации по внедрению искусственного интеллекта в образовательные учреждения. В рамках исследования был проведен опрос 207 учителей Кыргызстана с целью оценки их опыта и отношения к использованию инструментов искусственного интеллекта. Результаты показали, что 67 % учителей активно используют такие инструменты в своей практике, а 76 % готовы развивать свою экспертизу в этой области. В исследовании подчеркнут потенциал искусственного интеллекта для улучшения преподавания и вовлеченности студентов. В то же время были выявлены существенные препятствия, такие как отсутствие возможностей для получения образования и цифровое неравенство, что особенно актуально в сельской местности. Эти проблемы подчеркивают необходимость внедрения программ подготовки учителей, этичного использования технологий и равноправного доступа к цифровым ресурсам. Проведенное исследование продемонстрировало меняющиеся требования, которые предъявляются к образовательным учреждениям, отражающие текущие технологические изменения в преподавании и практике. Результаты, представленные в статье, предлагают важные направления для специалистов-практиков и тех, кто формирует политику в сфере образования. Результаты исследования свидетельствуют о необходимости разработки механизмов обучения и поддержки педагогов в новых условиях. Их также можно использовать при разработке рекомендаций по обновлению образовательных программ и повышению цифровой грамотности

**Ключевые слова:** эра искусственного интеллекта; образование; роль учителя; образовательные технологии; проблемы; образовательное пространство