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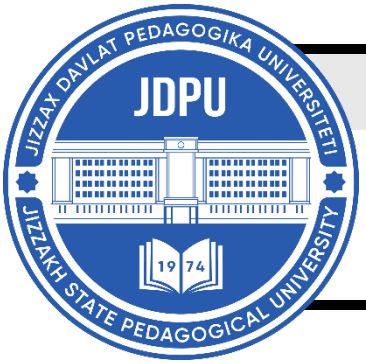

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EXPERIENCE OF ORGANIZING A CREATIVE OPEN LESSON EDUCATIONAL MARATHON IN THE SUBJECT "ANCIENT WORLD HISTORY" WITH THE HELP OF ARTIFICIAL INTELLIGENCE

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ABOUT ARTICLE

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Abstract: The article analyzes the possibilities of effectively using artificial intelligence (AI) technologies in the educational process. The study is based on the experience of the Creative Open Lessons Marathon on the subject "Ancient World History" held in the 2024/2025 academic year with the participation of first-year students of the Faculty of History at Jizzakh State Pedagogical University. Within the framework of the marathon, educational materials prepared using AI tools such as ChatGPT, Google Bard, DALL·E, and Canva were integrated into the learning process. The analysis results demonstrated that the use of AI in education fosters the development of students' historical-analytical and comparative thinking, independent research skills, and creative potential, as well as increases their interest and motivation toward the subject. At the same time, certain methodological and pedagogical issues were identified. Based on this experience, practical recommendations were developed for using AI

in the context of digital transformation in education.

Introduction. Ancient World History is an important academic subject aimed at studying the early stages of the formation of human civilization. This discipline covers various aspects of the emergence of ancient civilizations such as Mesopotamia, Egypt, India, China, Greece, and Rome, including state structures, legal relations, culture and art, religious beliefs, economic systems, and military activities. Ancient World History plays a significant role in shaping consciousness based on historical knowledge, worldview, cultural heritage, and universal human values. Through this subject, students develop skills in chronological thinking, cause-and-effect analysis, working with sources, respect for the past, and a critical approach.

Traditional teaching methods occupy an important place in history education. However, modern educational technologies, particularly the capabilities of Artificial Intelligence (AI), show the necessity of revisiting these methods, improving them, and integrating them with the digital environment. In recent years, AI technologies have been widely used in the global education system, bringing significant changes to higher education. The integration of AI into education has emerged as a key factor in providing personalized learning, broad access to information, and fostering critical thinking [7]. In the context of today's global digital transformation, the education system is adopting new formats — creative lessons and virtual teaching models — and turning AI into an active educational agent.

The 2021 UNESCO publication AI and Education: Guidance for Policy-makers emphasizes the need to personalize the learning process, implement adaptive learning platforms, develop ethical competencies, integrate AI models into education, and improve teachers' digital literacy [28]. The document Recommendation on the Ethics of Artificial Intelligence stresses adherence to fundamental values such as human rights, transparency, and accountability in the implementation of AI technologies [29].

In addition, the 2019 Beijing Consensus on Artificial Intelligence and Education highlights the importance of ensuring equal opportunities, strengthening the role of teachers, and adhering to ethical principles in the use of AI in education [27]. The 2023 UNESCO document Guidance for Generative AI in Education and Research outlines measures for ethical and legal compliance when introducing generative AI models (ChatGPT, Claude, Gemini, and others) into schools and universities, including age-appropriate regulations for children, teacher training, and information security [30].

In all these documents, UNESCO emphasizes that the use of AI in education should not only enhance efficiency but also be carried out on the basis of inclusiveness, digital equity, and respect for human rights.

Methodology. In the 2024/2025 academic year, the Faculty of History at Jizzakh State Pedagogical University organized a marathon of open lessons on the subject Ancient World History with the participation of first-year students.

In preparing the lesson plans, Artificial Intelligence (AI) technologies — particularly ChatGPT — were utilized. With their help, scripts were written, test and creative tasks were developed, and descriptions of illustrations and conceptual diagrams were created. This process effectively enhanced students' independent research skills, their ability to analyze historical information, and their competence in creating creative educational content.

The Generative Pre-trained Transformer — ChatGPT — developed by OpenAI in 2022, has made it possible to implement personalized, interactive, and inclusive approaches in education [20]. In an international survey conducted in 2024 covering 3,839 students from 16 countries, 86% of respondents reported using AI in education, with 24% using it daily [6]. In China, AI courses have been introduced in all educational institutions, and nearly 60% of students use them regularly [18]. In India, 84% of students use AI for information retrieval, 76% for text writing, and 68% for learning complex subjects [5].

According to a survey of 1,041 undergraduate students in the United Kingdom, the share of students using AI increased from 66% in 2024 to 92% in 2025 [12].

In Uzbekistan, no specialized statistical analysis is yet available, indicating the need to conduct local studies and examine AI integration in the national context. In particular, the creation of AI-powered tools and automated learning platforms in the Uzbek language would contribute to improving the quality and competitiveness of education.

The use of AI tools requires a gradual transition toward a creativity-based education system, effective integration at different stages of learning, and modernization of pedagogical functions. At the same time, the lack of legal and ethical standards and issues related to personal data protection remain urgent. These trends correspond to the transformation processes emerging in higher education under the influence of generative AI [33].

Samuel Ochen et al. (2025), in a review of 54 scholarly sources, found that AI technologies are a key tool in expanding students' academic potential, improving learning efficiency, and strengthening creative collaboration between teachers and students [19].

Yueqiao Jin et al. (2024), analyzing the experience of 40 universities, emphasize that the introduction of Generative AI (GSI) technologies requires improving AI literacy, developing human capital, and ensuring ethical and effective implementation [14].

Results and discussion. Problems and challenges related to the use of AI in higher education have also been analyzed by K. Rakhmonov and S. Khidirov, who examined the requirements placed on university faculty, as well as the advantages and disadvantages of AI integration in higher education [34].

The primary goal of the modern education system is to develop students into independent thinkers, creative individuals, and critical analyzers of information. In this process, independent activities and open lessons play a crucial role, as they help students build skills in information retrieval, decision-making, time management, and problem-solving.

Research conducted in Uzbekistan shows that AI tools — including chatbots and visual platforms — serve as effective factors in increasing students' motivation and independence [24]. Global experience demonstrates that AI technologies significantly impact traditional teaching methods by enabling automatic lesson content preparation, fostering independent thinking, and ensuring interactive learning. Particularly in the humanities, AI tools are essential for enriching educational content, developing intellectual potential, and increasing interest in the subject.

Therefore, history educators must be prepared to integrate AI technologies with pedagogical methodology in the future. According to a 2024 study conducted by researchers at Stanford University, AI has proven to be an effective assistant in teacher training and retraining processes. This experience was recorded for the first time in education history as a teacher preparation model based on "human–artificial intelligence" collaboration [25].

In Uzbekistan, several state programs are being implemented to digitalize the education system. Notably, the "Digital Uzbekistan – 2030" strategy identifies AI integration as a priority [36], and the "Center for the Development of Artificial Intelligence and the Digital Economy" has been established to enhance human capacity and promote research activities [35]. Current analyses indicate that government strategic support and investment in infrastructure create promising opportunities for the country; however, challenges such as a shortage of qualified personnel, the need to improve infrastructure, and risks related to data privacy must be addressed.

This article examines the use of Artificial Intelligence (AI), particularly ChatGPT, in teaching the subject Ancient World History. The aim of the study is to assess the effectiveness of AI use and develop pedagogical recommendations.

In the 2024/2025 academic year, the Faculty of History at Jizzakh State Pedagogical University organized a creative open lesson marathon for first-year students. Students freely chose topics, collected and analyzed information, prepared presentations, and actively participated in delivering lessons to an audience. ChatGPT was used as the main tool during preparation, assisting in creating educational content, analyzing sources, and formulating questions. For visual materials, Canva and DALL·E were used; Google Bard was applied for comparative analysis; PowerPoint and Prezi were utilized for presentation preparation.

This approach increased students' independent research, creative thinking, and active participation through AI tools. Their metacognitive skills — the ability to evaluate, monitor, and analyze knowledge — developed significantly. Students compared AI-generated information with other sources and refined the material based on critical analysis. As a result, the "learning to learn" competence was formed, and AI became an effective assistant in shaping their individual learning pathways.

Effective artificial intelligence (AI) solutions can be used in teaching the subject Ancient World History.

First, interactive chatbots and language models (such as ChatGPT, Google Gemini) can allow students to "converse" with historical figures, ask questions, and receive answers, thus transforming the learning process into a creative and active environment.

Second, AR/VR technologies and 3D models can provide immersive virtual experiences of ancient sites such as the Pyramids, the Colosseum, and the Parthenon [13].

Third, OCR (Optical Character Recognition) and NLP (Natural Language Processing) technologies can be used to digitize authors' works and conduct semantic, stylistic, and contextual analysis.

Fourth, adaptive testing systems can automatically assess students' knowledge levels and offer personalized recommendations; platforms such as Coursera, Khan Academy, and Quizalize are widely used for this purpose [22].

In this way, AI tools in educational marathons play an important role in enriching lesson content, increasing efficiency in the digital environment, and ensuring students' intellectual engagement. Integrating videos, infographics, simulations, and chatbot discussions into lesson plans facilitates the transition from theoretical to practical learning and helps students acquire historical knowledge more effectively.

In the learning process, using AR/VR technologies via open platforms gives students the opportunity to observe historical monuments, artifacts, and various civilization-related processes in a virtual environment based on the "here and now" principle. This approach allows

educational materials to be presented meaningfully and impressively through digital exhibitions.

Furthermore, virtual museums and historical simulations not only make it easier to view historical content but also to comprehend and analyze it. For example, AR technologies can model historical realities: 3D reconstructions of battles, panoramas of monuments and ancient cities, all of which enable students to perceive events vividly and form emotional connections with the past.

In practice, using AR technology to visually present objects such as the Terracotta Army of Qin Shi Huang, the Great Wall of China, or the Roman Senate helps students gain a deeper understanding of historical topics and develop independent thinking and analytical skills.

Experience shows that AR tools yield high effectiveness in teaching historical processes through modern visual codes. For instance, in interactive lessons on the topic Ancient China: Qin Shi Huang, students observed historical sites in a virtual environment, enhancing their critical thinking and chronological perception skills.

Similarly, AR technology enables the study of the Roman Senate and the Athenian democratic system not only theoretically but also in a practical and immersive way. Through specialized applications, it is possible to model the seating arrangement of senators, the functions of magistrates, and the decision-making process. In Athens, if the citizens' assembly and the judicial system are visualized in this manner, students' interest and knowledge can significantly increase.

However, the rapid spread of information in the digital environment requires students to have skills in analyzing sources, comparing evidence, and selecting reliable information. It has been observed that some students accept responses from AI tools such as ChatGPT without analysis, drawing incorrect conclusions without considering the historical context [31]. For this reason, it is essential to pay special attention in the learning process to working with sources and critically evaluating evidence.

When working with AI tools, students should follow these rules:

- Verify the obtained information through at least two reliable academic sources.
- Avoid accepting AI responses without critical review.
- Connect each date, figure, or event to a source when using it.

If AI tools do not provide a source, they should be used cautiously. In addition, it is recommended to cross-check the obtained information with Google Scholar, JSTOR, national digital libraries, or academic publications. In this way, students develop the ability to select, compare, and independently draw conclusions based on scholarly analysis.

The use of artificial intelligence technologies in teaching Ancient World History offers several advantages. First, integrating digital content — such as videos, infographics, simulations, and chatbot-based discussions — into lesson plans increases student engagement and facilitates easier acquisition of historical knowledge.

Second, AI tools can be used for writing texts, creating multimedia presentations, developing historical scenarios, and organizing intellectual debates, all of which foster students' creativity, independent thinking, and critical analysis skills.

Third, the use of AR/VR technologies provides opportunities for students to virtually view historical monuments and artifacts. This, in turn, makes the learning process more meaningful and impactful through digital exhibitions.

Empirical research indicates that students use AI tools for formulating logical questions, reanalyzing materials, and comparing historical sources [17]. However, it has also been noted that many students lack sufficient digital skills to use AI effectively [23].

At the same time, AI technologies carry certain risks. One notable concern is the "hallucination" phenomenon, where language models fabricate non-existent sources, present incorrect information, or provide fake DOI numbers. According to 2023 research, 47% of 115 sources cited by ChatGPT were fabricated, while 46% existed but were based on inaccurate information [3].

Incorporating artificial intelligence technologies into the teaching of Ancient World History is crucial for improving educational quality.

- First, lesson plans should integrate digital content such as videos, infographics, simulations, and chatbot-based discussions. These visual and interactive tools can increase student engagement and make it easier for them to acquire historical knowledge.
- Second, to enhance student participation, methods such as AI-assisted text writing, multimedia presentation preparation, historical scenario creation, and organization of intellectual debates should be applied. Such approaches foster independent thinking, creativity, and critical analysis skills.
- Third, the use of AR/VR technologies through open educational platforms can make the learning process even more effective. Students gain the opportunity to virtually explore historical monuments and artifacts, and digital exhibitions make the process of acquiring knowledge both meaningful and impactful.

Empirical studies show that students can effectively use AI tools to formulate logical questions, analyze materials, and compare historical sources [17]. However, a significant portion of them lack adequate digital skills [23].

At the same time, AI technologies also have drawbacks. One notable issue is the "hallucination" phenomenon observed in language models, which leads to the presentation of inaccurate information or the fabrication of non-existent sources. For example, a 2023 analysis found that of 115 sources cited by ChatGPT, 47% were fabricated, while 46% existed but were based on incorrect information [3].

This underscores the growing need to develop students' skills in selecting, verifying, and avoiding plagiarism. In some cases, students have been observed submitting AI-generated material directly as assignments without conducting their own analysis [11]. Such practices violate academic integrity requirements and may lead to the misinterpretation of facts in the learning process.

Concerns also exist that overreliance on AI tools may reduce students' critical thinking abilities and diminish their capacity to form independent judgments [4]. For this reason, developing skills to use AI in an ethical, critical, and creative manner is being viewed as an important task in the pedagogical environment [2].

Rather than accepting AI-generated information blindly, students should learn to analyze it, verify sources, and identify errors or fabricated data. This enables them to approach knowledge critically, work independently, and avoid plagiarism.

The number of academic studies examining how AI integration into the learning process can enhance students' interest in the subject, active participation, and independent learning ability is steadily increasing [1; 15; 26].

Meta-analysis results show that AI tools such as ChatGPT have a significant positive impact on students' interest in the subject, their level of engagement in the learning process, and emotional involvement [1]. Research indicates that ChatGPT can support students' independent learning by providing personalized recommendations and facilitating interactive communication, which helps deepen their knowledge [26]. Another study found that working with ChatGPT improves students' questioning and debating skills, as well as their level of critical thinking [15].

During the marathon, students were informed not only about the potential of AI technologies but also about their limitations and possible risks. It was emphasized that AI tools are not independent fact-checkers or creators of original information, but rather algorithms that model and generalize based on existing data. Therefore, AI-generated information should not be treated as a primary academic source but rather as an educational support tool, with a critical approach being the foundation of its use [10].

AI tools can indeed enhance students' interest in the subject and their capacity for independent learning. Research confirms that models like ChatGPT increase student engagement, emotional activity, and independent work skills [1; 15; 26]. Meta-analyses also validate that AI tools can deepen knowledge through personalized recommendations and interactive dialogue [26].

However, certain risks also exist. When students submit AI-generated text as assignments without analyzing it, plagiarism can occur [11]. This not only violates academic integrity but also risks the misinterpretation of facts. Additionally, there are concerns that excessive reliance on AI may reduce students' ability to think independently and critically [4].

For these reasons, the use of AI in the learning process should be based on ethical and creative approaches [2]. Students should not accept AI-generated information blindly; instead, they should analyze it, verify sources, and identify fabricated data. This process will strengthen their skills in avoiding plagiarism, working independently, and acquiring knowledge critically.

In the marathon activities, students were informed not only about the potential of AI but also about its limitations. It was emphasized that algorithms do not independently create new information but rather generalize from existing resources. Therefore, AI tools should not be regarded as primary academic sources but rather as educational support tools, and their use should be based on a critical approach [10].

The open lessons were organized according to the Teach–Create–Present model, which, with the help of AI tools, enabled interactive learning of the subject matter. This approach was evaluated as an important factor in increasing students' engagement, ensuring participation in class, and developing analytical skills [9].

Natural Language Processing (NLP) technologies made it possible to automatically analyze historical texts and ancient inscriptions, reveal their contextual meanings, and provide translations. This played a significant role in developing students' skills in multi-source analysis and interpretation [8]. Machine Learning algorithms allowed for automating processes such as arranging information in chronological order, identifying developmental trends, and critically analyzing sources [16].

The marathon experience demonstrated that AR technologies give the educational process a multimodal character, serving as an effective tool for long-term retention of historical knowledge and increasing interest in topics. At the same time, students acquire essential skills such as source verification and evidence comparison, which are especially important in today's digital information environment where data spreads rapidly.

When working with AI tools, students must verify information using at least two reliable sources. AI responses should not be accepted at face value; instead, they must be critically analyzed, justified, and compared with factual evidence. Every historical fact, date, or figure should be linked to a specific source, and information without a source should be used with caution.

In teaching Ancient World History, AI technologies can be integrated into interactive methods: videos, infographics, simulations, and chatbot-based discussions make lessons more engaging. In addition, students can develop independent thinking and critical analysis skills by creating texts, preparing presentations, and modeling historical scenarios. AR/VR technologies allow virtual viewing of historical artifacts, making the learning process even more impactful.

Recent studies also confirm that the integration of AI tools into education increases students' interest in the subject, active participation, and ability to learn independently [1; 15; 26]. Meta-analysis results show that platforms such as ChatGPT significantly enhance students' interest in the subject, engagement in the learning process, and emotional involvement [1].

Research findings indicate that ChatGPT supports independent learning by providing personalized recommendations and enabling deeper knowledge acquisition through interactive communication [26]. Furthermore, students working with AI have been observed to develop questioning, debating, and critical thinking skills [15].

The process of preparing open lessons sparked students' interest in independent learning. They learned to study the subject through personal research, apply innovative creative approaches, and use digital technologies purposefully and critically. Moreover, open lessons helped students improve pedagogical skills, refine speech culture, strengthen logical thinking, and gain experience in communicating freely before large audiences.

After each open session, a reflection process was organized. This included a comprehensive assessment system involving peer assessment, self-assessment, and AI-assisted automatic analysis. Through peer assessment, students developed communication culture, learned to justify their opinions, respect others' viewpoints, and build critical analysis skills. Such a model played an important role in supporting independent study and structured research processes [21].

A meta-analysis by Zhan (2023) also evaluated the peer-assessment process as an effective pedagogical method for developing students' critical thinking, analytical skills, and ability to provide evidence-based arguments [32].

The researcher developed and applied in practice the "5 Plus / 5 Minus" assessment model, which helped make the process simple and systematic.

- “5 Plus” covered the strong aspects of the work (original ideas, structural clarity, in-depth analysis, correct use of sources, and well-grounded conclusions).
- “5 Minus” reflected the areas needing improvement (language errors, lack of sources, stylistic inaccuracies, factual shortcomings, and weak conclusions).

In this model, peer assessment and self-assessment processes were combined with AI-assisted analysis, ensuring transparency and fairness in the evaluation process. The results show that the comprehensive assessment system serves not only as a tool for evaluating knowledge but also as an effective mechanism for fostering students’ personal development, culture of collaborative thinking, and sense of responsibility.

Student Feedback and Analysis. Written feedback collected from students at the end of the marathon indicated that they achieved practical gains in the learning process and developed a culture of using modern technologies, including AI.

Some student comments:

- “Conducting open lessons helped me speak freely in front of everyone and improve my fluency, which will ensure I confidently master my future profession.”
- “Open lessons increase our interest in learning; they are especially useful for students in the field of pedagogy.”
- “Such lessons teach students to express their opinions freely.”

Opinions about AI tools:

- “For me, AI is a very good tool, but you need to know how to use it correctly. I often ask it about topics I don’t understand.”
- “AI is important in learning history. It is closely connected with 21st-century science and innovation.”
- “Suniy intellekt menimcha juda yaxshi, faqat uni to‘g‘ri ishlatish kerak. Men ko‘ринча тушунмаган мавзуларни ундан сўрайман, бу менга тушунишимда ёрдам беради.”
- “AI activates human thinking and motivates independent learning.”

These reflections show that students understand AI through an interdisciplinary approach and perceive it as an integral part of modern science and education.

Conclusion and recommendations. The research and educational marathon experiences showed that the use of artificial intelligence (AI) technologies increased student engagement in the learning process and contributed to the development of their independent thinking and digital literacy skills. Open lessons and interactive communication fostered modern competencies such as independent research, collaborative work, critical analysis, and

effective activity in the digital environment. At the same time, the integration of peer and self-assessment with AI-assisted analysis played an important role in ensuring fairness and transparency in the learning process.

The findings indicate that AI technologies hold significant potential for personalizing education, deepening the assimilation of learning materials, and organizing effective independent study. Based on student feedback, it is recommended to improve the methodological direction and instructional format of lessons, widely implement interactive technologies, and make purposeful use of the digital environment to further enhance educational effectiveness.

It is also important to:

- Introduce AI tools gradually, in alignment with the specific characteristics of the subject.
- Develop practical training sessions and methodological guides for both students and teachers.
- Launch educational programs that enhance digital literacy and critical thinking skills.
- Ensure information reliability and adherence to ethical principles.
- Promote national and international academic collaboration projects for experience exchange.

Implementing these measures will enrich the content of the learning process, deepen students' independent thinking and practical skills, and mark a new stage in the teaching of history.

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