SCIENTIFIC AND THEORETICAL FOUNDATIONS FOR IMPROVING HISTORY EDUCATION BASED ON ARTIFICIAL INTELLIGENCE TECHNOLOGIES

Jumaniyazov Jasurbek Jazarboyevich
Urgench State Medical Institute

Abstract. This thesis examines the scientific and theoretical foundations for improving history education through artificial intelligence technologies. It also analyzes the didactic potential of artificial intelligence in teaching the subject "Contemporary History of Uzbekistan," changes in the activities of teachers and learners, and the theoretical and methodological aspects of integrating these technologies into the educational process. The study combines constructivism, the TPACK framework, connectivism, and cognitive load theory to substantiate a theoretical basis for the effective and scientifically grounded use of artificial intelligence in history education.

Keywords. artificial intelligence, history education, digital education, "Contemporary History of Uzbekistan," TPACK, constructivism, connectivism, cognitive load, didactic potential.

Today, the expanding use of digital technologies in education requires improvements in the content, forms, and methods of organizing the learning process. In particular, the rapid development of artificial intelligence technologies is creating new opportunities for learners to search for, process, analyze, and compare information, as well as complete individualized learning tasks. At the same time, modern teachers are expected not only to use digital tools, but also to evaluate the reliability of information generated through these tools, determine its relevance to educational content, and guide learners toward developing independent and critical thinking.

This process is particularly significant for history education. Historical knowledge is based on accurate facts, events, dates, historical figures, and cause-and-effect relationships. In teaching the subject "Contemporary History of Uzbekistan," it is especially important to present historical events objectively and scientifically, analyze different sources critically, and develop historical thinking. Therefore, when using information generated by artificial intelligence, it is necessary to verify its consistency with scientific sources, identify inaccurate or decontextualized information, and develop learners' critical attitudes toward such content.

The integration of artificial intelligence technologies into history education is not limited to the use of technical tools. It requires reconsidering the relationship among teacher activity, learner cognitive activity, educational content, and pedagogical technologies. From this perspective, identifying the scientific and theoretical foundations

for improving history education through artificial intelligence is one of the relevant pedagogical problems.

An analysis of the scientific literature shows that the theoretical and methodological foundations of history education have been studied by scholars such as E. Vyazemsky, O. Strelova, M. Studenikin, T. Toshpulatov, and Ya. Gafforov. At the same time, the TPACK framework developed by P. Mishra and M. Koehler, the constructivist approach associated with the ideas of L. Vygotsky, J. Piaget, and J. Bruner, G. Siemens's theory of connectivism, and the cognitive load-related views of J. Sweller and R. Mayer are of considerable methodological importance for explaining the pedagogical potential of artificial intelligence in the contemporary digital educational environment.

However, there remains a need to further develop approaches that integrate the content-specific characteristics of history education, particularly the requirements of teaching "Contemporary History of Uzbekistan," with the didactic potential of artificial intelligence technologies within a unified system. In particular, verifying the reliability of historical information generated by artificial intelligence, conducting comparative analysis of sources, identifying cause-and-effect relationships among historical events, and developing learners' independent thinking require a distinct methodological approach.

Therefore, within the framework of the study, several pedagogical and psychological theories were integrated as the theoretical and methodological foundations for improving history education through artificial intelligence technologies. In particular, the constructivist approach makes it possible to use artificial intelligence tools not for the passive reception of ready-made knowledge, but for enabling learners to construct new knowledge independently on the basis of their existing knowledge and experience.

The TPACK framework provides a theoretical basis for integrating historical content, pedagogical methods, and technological capabilities. According to this approach, it is not sufficient merely to introduce an artificial intelligence tool into the educational process; it is important to determine how well the tool corresponds to the content of history and to a specific pedagogical objective.

From the perspective of connectivism, the contemporary learner becomes an active participant in a network of knowledge formed through various digital sources, electronic resources, and artificial intelligence tools. Under such conditions, alongside searching for historical information, it is important to develop the ability to compare different sources, determine the reliability of information, and reach evidence-based conclusions.

Cognitive load theory highlights the need to pedagogically regulate the amount and complexity of information presented to learners when using artificial intelligence tools. Since artificial intelligence can provide large amounts of information within a short period of time, learning tasks should be designed with due consideration of learners' cognitive capacities.

The research findings indicate that the following problems should be given particular attention when using artificial intelligence technologies in history education:

• improving mechanisms for verifying the scientific and factual reliability of historical information;

• developing artificial intelligence-based tasks aimed at developing learners' historical thinking and critical thinking;

• integrating the content of history, pedagogical methods, and artificial intelligence technologies;

• developing teachers' competence in using artificial intelligence technologies for pedagogical purposes;

• developing learners' ability to independently analyze information generated by artificial intelligence and compare it with historical sources.

Systematically addressing these problems creates opportunities to adapt the content and methods of history education to the contemporary digital learning environment, strengthen learners' independent inquiry and critical thinking, and improve the effectiveness of acquiring historical knowledge.

Thus, improving history education through artificial intelligence technologies requires an integrated approach based on the interaction of constructivism, the TPACK framework, connectivism, and cognitive load theory. Artificial intelligence should not be regarded as a tool that replaces the teacher, but rather as a pedagogical instrument that enriches the educational process, supports information search and analysis, and activates learners' cognitive engagement. These scientific and theoretical foundations provide a methodological basis for developing a practical model and methodology for using artificial intelligence in history education.

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