SOME ISSUES OF THE USE OF ARTIFICIAL INTELLIGENCE IN EDUCATION

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Abstract: *This article examines some issues related to the application of artificial intelligence in education. Artificial intelligence plays an important role in optimizing the educational process, identifying the individual needs of students, and increasing their success. The article analyzes the pros and cons of using artificial intelligence in education, as well as data security issues.*

Keywords*: artificial intelligence, education, teaching methods, data security, interactive learning, data analysis, student needs.*

INTRODUCTION

Currently, the process of applying artificial intelligence in educational systems is developing rapidly. Artificial intelligence creates new opportunities between teachers and students, helping to make education more effective and interesting. Nevertheless, there are still problems related to the application of artificial intelligence in education, and serious work is needed on them.

MAIN PART

Artificial intelligence (AI) is one of the innovative technologies opening up new opportunities in the field of education. Today, the changes occurring as a result of AI in education systems are clearly visible. Educational programs prepared in accordance with the individual needs of students contribute to their more effective and interesting learning. This process, in turn, requires the use of

technologies that allow increasing student success and reducing the workload of teachers.

One of the main advantages of using artificial intelligence in the educational process is that it helps determine students' reading style and speed. For example, AI can be used to understand the strengths and weaknesses of each student. As a result of this analysis, the teacher can approach each student individually and provide them with the necessary materials. Thus, students not only increase their knowledge, but also develop self-confidence.Today, the development of artificial intelligence and digital technologies is supported by the state at an accelerated pace. To this end, the Resolution of the President of the Republic of Uzbekistan dated February 17, 2021 No. PP-4996 "On Measures to Create Conditions for the Accelerated Introduction of Artificial Intelligence Technologies" was adopted. This document is important because it is aimed at creating a favorable environment for the development of artificial intelligence-based technologies. Cyber University was established to train highly qualified specialists in areas such as artificial intelligence, information security, data protection, the digital economy, and robotics. Starting from the 2023/2024 academic year, 572 students were admitted to 12 higher educational institutions of our country in the field of artificial intelligence, of which 510 were admitted to undergraduate education and 62 to master's degree specialties. In order to widely introduce artificial intelligence technologies into the social sphere and sectors of the economy, the Strategy for the Development of Artificial Intelligence Technologies until 2030 has been adopted, which defines priority tasks in this area for the long term.

However, there are also important issues in the application of artificial intelligence in education. Firstly, issues of data security and privacy protection remain relevant. When students' personal data and outcomes are collected, clear rules must be established for how this data is stored and used. If these issues are ignored, the educational process can lead to confusing and dangerous situations.

Secondly, the role of teachers can change. Teachers need to engage in more strategic and creative work with the help of artificial intelligence, which requires constant updating of their specialties. They should respond quickly to students' needs without any control or algorithms. If teachers are not properly trained, it may be difficult for them to properly utilize the opportunities arising from artificial intelligence.

Another issue is the provision of educational resources. The application of artificial intelligence requires expensive software and equipment. This can put financial pressure on many schools and higher education institutions. If the issue of financing and resource provision is not resolved, it will be difficult to successfully implement artificial intelligence in education.

For the successful application of artificial intelligence in the field of education, it is necessary to create enjoyable strategies and best practices. It will be useful to study international experience and identify difficulties in implementing successful projects. It is also important to take into account the opinions of teachers and students in the process of preparing for the application of AI in the education system. This process contributes to improving the quality of education and ensuring the gradual development of students.

Theoretically, artificial intelligence can influence students' health and psychological state by analyzing their grades and results, helping them to teach correctly. On the other hand, students do not have inertia to obtain only initial information in the learning process using artificial intelligence. They strive for independent study. This plays an important role in making them more creative and problem-solving.[2]

In general, artificial intelligence opens up great opportunities in the educational process, but at the same time, a cautious approach should be continued. To lay the foundation for this and successfully implement this process, teachers, government agencies, and technology companies need to work together. Each party can contribute and help make the application of artificial intelligence in education more effective and safe.

Insufficient integration of innovative technologies into the educational process. In most educational institutions, the use of digital tools and interactive platforms is limited to a certain extent, which, in turn, reduces the effectiveness of education and does not allow students to develop their knowledge of digital literacy. As a result, schoolchildren are not sufficiently prepared to understand and positively solve modern problems related to technological progress. This problem is particularly evident in rural schools where access to computers, the internet, and modern educational programs is difficult; for example, in 2022, more than 30% of rural schools in Uzbekistan did not have access to a stable internet connection. According to a study conducted by UNICEF, 40 percent of schoolchildren cannot use a computer at all, and only 37 percent have digital literacy. In rural areas, the situation is even more complicated - less than 30 percent of children know how to

use digital devices. This indicates a serious numerical inequality, which puts rural students in an unfavorable position compared to their urban peers3. In addition, the low level of digitalization of the educational process has a serious impact on the quality of teacher training. Most teachers do not have sufficient experience working with modern educational platforms, which, in turn, limits their ability to apply advanced teaching methods[3].

The shortage of qualified teachers in the education system remains one of the serious problems. This will affect not only the quality of education of students, but also their future, the development of the country in the scientific, technological, and social spheres. At a meeting held by President Shavkat Mirziyoyev on August 28, 2023, dedicated to priority tasks in improving the quality of education, increasing student places in schools, and supporting teachers, he expressed concern about the level of teacher training. According to the president, the knowledge and skills of 86,000 out of 220,000 teachers, that is, 37%, were assessed as "unsatisfactory"[1]. The situation with teachers of computer science, English, physics, mathematics, and chemistry, which are the foundation of modern education, is particularly alarming. Without high-quality teaching of these subjects, it is impossible to raise a generation capable of critical thinking, creating innovations, and solving complex scientific and technological problems related to the future of society.

Modern global trends in the field of digitalization and artificial intelligence require not only flexibility from the education system, but also the rapid introduction of advanced technologies. International experience shows that the successful integration of artificial intelligence into the educational process allows

for improving the quality of education, eliminating the digital divide, developing critical thinking, and training competitive personnel. In order to solve the identified problems and effectively achieve the priority tasks of the "Uzbekistan - 2030" Strategy for the modernization of education, experts of the "Development Strategy" Center have developed the following proposals: Firstly, for the successful and safe integration of artificial intelligence into the educational process, it is necessary to establish a clear legal framework for regulating the use of artificial intelligence in the field of education, providing for ethical aspects and the protection of personal data of students and teachers.

Global trends in the field of digitalization and artificial intelligence require not only flexibility from the education system, but also the rapid introduction of advanced technologies. International experience shows that the quality of education can be improved if artificial intelligence is successfully integrated into the educational process. This also provides an opportunity to eliminate the digital divide, develop critical thinking, and train competitive personnel. At the same time, when using artificial intelligence in the educational process, it is necessary to solve a number of problems [4].

First of all, it is necessary to take into account ethical aspects and issues of personal data protection. It is necessary to establish a clear regulatory legal framework for the safe storage of personal data of students and teachers, as well as the use of artificial intelligence in the educational process. These rules make the use of artificial intelligence in education safer and more effective [5].

In addition, it is necessary to create special programs for the integration of artificial intelligence into teaching methodologies. It is necessary to develop

programs for the training and advanced training of teachers who use the capabilities of artificial intelligence in educational institutions. This process should be carried out by incorporating previously advanced technologies and methodologies. It is also necessary to develop effective strategies for the implementation of innovative technologies to achieve priority tasks for the modernization of education within the framework of the "Uzbekistan - 2030" Strategy. The introduction of digital infrastructure, artificial intelligence, and other advanced technologies in education will increase the effectiveness of educational institutions and make the educational process more interesting.

CONCLUSION

The process of applying artificial intelligence in education provides a number of useful opportunities, including making students individually comfortable and making learning simple and interesting. However, this process is also associated with risks, and it is necessary to take into account data security issues and the role of teachers. Solving these issues is important for the successful implementation of artificial intelligence in the educational process.

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