

# Organization Of The Educational Process In Primary Education With The Participation Of Artificial Intelligence.

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**Citation:** Norposhshakhon Khabibullaevna Vokhidova, et al. (2024), Organization Of The Educational Process In Primary Education With The Participation Of Artificial Intelligence., *Educational Administration: Theory And Practice*, 30(4), 1906-1909, Doi: 10.53555/kuey.v30i4.1783

## ARTICLE INFO ABSTRACT

This article provides information on the organization and monitoring of artificial intelligence in the primary education system, and the effective use of large amounts of data. Many elementary education organizations want artificial intelligence to help them solve problems. These general education organizations want to extend the tools of artificial intelligence to predict risks and manage all processes in education based on predictions. In particular, it is necessary to create new tools for Internet development, elimination of technological problems, digital economy. Also, one of the main tasks of Uzbek researchers is to provide close assistance in the introduction of artificial intelligence to science.

**Key words:** elementary education, artificial intelligence, effective use, general education, internet development, technological challenges, creation of new methods.

## Introduction:

Today, the concept of artificial intelligence is very common in primary education. For example, programs on your mobile device: Google, dictionaries, various games, etc. are also clear examples of artificial intelligence. Only their coverage is smaller and they can only help you in a certain direction. In elementary education, you use the appropriate program depending on the type of activities you want students to do.

Today, the amount of data generated by humans and machines far exceeds the ability of humans to absorb, interpret, and make complex decisions. Artificial intelligence is capable of analyzing large amounts of data and making decisions based on them. For example, in a math game in elementary school, most students know how to win. But not everyone knows that there are unique actions in this game, and most of them end in uncertainty. In elementary education, computers are extremely effective at calculating these combinations and actions and finding the best solution. Artificial intelligence, its development and deep learning is the future of business decision-making. In the future, this technology can create an opportunity to find the right solution in all areas of the economy. In order to expand the use of artificial intelligence technologies, to improve the system of digital data collection, storage and processing, a number of works are currently being carried out in our country to train qualified personnel in this field, to support scientific projects in this direction.

In turn, the introduction of artificial intelligence into science requires an increase in the number of qualified personnel. After all, experts who are masters of their profession will be the main factor in the penetration of artificial intelligence into all areas. Currently, in our country, the specialty "Digital technologies and artificial intelligence" in this direction has been included in the nomenclature of scientific and scientific-pedagogical specialties of highly qualified personnel, and its passport has been created. A post-higher education institute for "Digital technologies and artificial intelligence" was opened at the Tashkent University of Information Technologies named after Muhammad al-Khorazmi and the Research Institute for the Development of Digital Technologies and Artificial Intelligence.

A total of 28 targeted quotas were allocated for basic doctoral studies and trainee-research in the field of artificial intelligence. From this, 14 admission quotas were allocated for basic doctoral studies and 14 for

research trainees. Also, 10 young scientists selected in the field of digital technologies and artificial intelligence will be sent to leading foreign scientific organizations for short-term scientific internships in 2022-2024. The total cost of 15.1 billion within the support of scientific and technical researches and innovative developments related to secondary education in the field of artificial intelligence. 9 projects with a duration of 2021-2024 are being implemented.

An international conference on "Artificial intelligence - the basis of technological development" is planned to be held on November 24 of this year as part of the International Week of Innovative Ideas "Innoweek.uz-2024" held annually by the Ministry of Innovative Development.

### **Literature methodology:**

In the research of L.I. Arkhipov, V.N. Babich and E.A.K. Irilova, the volume of information created by mankind in the last 30 years is equal to the volume of the previous 3 thousand years and continues to grow at a rapid pace, and thus it is impossible to achieve a huge effect without the use of artificial intelligence. The formation of data arrays (Big Data) is sufficiently explained.

Introduction of artificial intelligence algorithms by N.V. Gorodnova as an assistant with additional capabilities in human life allows to get the main advantage of such integration - it is based not only on speeding up the decision-making process, but also significantly improving their quality.

V.V. Jilin, O.A. Safaryan's research revealed that 37 percent of companies use algorithmic services and artificial intelligence technologies today, which indicates that the possibilities of using new highly intelligent technologies will continue to increase in the future.

According to L.I. Arkhipov, the revenue from the use of Big Data and business analytics services in the world in 2018 was 168.8 billion US dollars, and according to the forecast, this indicator will exceed 274.3 billion US dollars by the end of 2022.

### **Material and methods:**

Artificial intelligence is entering our lives, but it is natural to wonder what it is. Therefore, we bring to your attention some information about artificial intelligence. In short, artificial intelligence is a system or technology capable of imitating human behavior in the performance of certain tasks, gradually improving itself using the acquired information. In general, artificial intelligence is neither a format nor a function, but a process that includes data collection, analysis, etc. When talking about artificial intelligence, it is necessary to analyze its place in business and information technology. The gradual penetration of artificial intelligence into these areas will ensure that the number of artificial intelligence tools increases. By "artificial intelligence" most people understand the involvement of robots in various fields. But the term artificial intelligence does not mean that robots will replace humans. Its main goal is to expand the limits of human abilities and capabilities. That's why technologies like this are a valuable business resource.

At first, the term "artificial intelligence" was applied to tasks that could only be performed by humans, such as customer service or playing chess. Also, the deep learning of computer technology is considered as artificial intelligence. But learning services in primary education, various online games and deep learning of computer technologies are a small part of artificial intelligence technologies.

It's true that artificial intelligence technologies help improve productivity by automating tasks that humans perform. However, now its scope is expanding, now with artificial intelligence it is possible to determine the character of people, the abilities of students, the views of the employee towards work.

Research in the field of artificial intelligence began in the middle of the last century. English mathematician and cryptographer Alan Turing (1912-1954) is the first author of research in this direction. In particular, in 1950, an article was published based on questions about the possibilities of technology leaving people behind intellectually. Its author was Alan Turing. Later, the scientist developed the "Turing test" procedure, which is named after him.

Since the publication of the article, new research has been conducted in the field of artificial intelligence. During this period, the scientist, without changing his views, began to express different opinions about machines that do not differ from humans in thinking.

**Early work in the field of artificial intelligence:** The term "artificial intelligence" was coined by 1956. This summer, a conference on artificial intelligence was held at Dartmouth University in the USA. Scientists such as Claude Shannon (Bell Laboratories), Nathaniel Rochester (IBM), Herbert Simon (Carnegie University, Trenchard Moore (Princeton University), John McCarthy (Dartmouth University), Marvin Minsky (Harvard University) participated in it.

American computer scientist John McCarthy (1927-2011), who gave a speech at this conference, made history as the author of the term "Artificial Intelligence".

The 80s of the 20th century began to be recognized as the discovery of artificial intelligence. Scientists began to develop textbooks in this direction.

### Result and discussion:

In 1997, the famous chess program "Deep Blue" was created, which defeated the world chess champion Garry Kasparov. During these years, a 6th generation computer project based on neural networks was being developed in Japan. After that, the focus on artificial intelligence increased. From large companies to military institutions began to finance this sector. As a result, the number of new technologies has increased, competition has increased, and artificial intelligence tools have been perfected.

Three reasons for the widespread use of artificial intelligence in primary education There are various reasons for the introduction of artificial intelligence in the field, of which we will mention the three most important: The first is low-cost high-performance computing resources.

The second is the availability of large amounts of data for education. In order for an AI product to make accurate predictions, it must process large amounts of data. This factor led to the creation of various tools, in particular, simple and inexpensive means of data storage and processing, and various algorithms.

Third, artificial intelligence products strengthen competitiveness. It can offer many tools for companies to reduce costs and risks, expand market access and other beneficial factors. As a result, companies that implement artificial intelligence will be more resistant to competition.

But as in all fields, there are a number of difficulties in introducing this type of innovation. In particular, the lack of qualified personnel and lack of information for its implementation. This is because the more data, the more accurate the AI's predictions. Google already allows students to add questions to YouTube videos as part of Google Classroom. The company says artificial intelligence will soon help you ask questions at different times. The company first announced this feature in June 2023. However, teachers had to apply in advance to use this feature. The company added that the Practice Sets feature, which uses artificial intelligence to generate answers and general tips, is now available in more than 50 languages.

Additionally, teachers can customize Google Forms for practice assignments. Google is also introducing a new "resources" tab to manage interactive questions during practice sets and videos. The company noted that its artificial intelligence tool "Duet AI" created for "Google Workspace" can help teachers create lesson plans. Google says that teachers will be able to organize different groups in the classroom at the end of the year. They will also be able to assign different tasks to different groups. Artificial intelligence technologies are widely used in various fields such as primary education, information technology, higher education, etc. Each of these industries uses technology to manage consumer behavior, study future trends, and automate various routine processes. Prospective areas of application of artificial intelligence are processes in which human actions are observed and repeated. It should be emphasized that today the development and implementation of such technologies is not developed enough to replace a person in absolutely everything.

### Conclusion:

Today, applying artificial intelligence in primary education in small and medium-sized businesses is possible if there is sufficient volume and quality data to build an effective training process on artificial intelligence. For this purpose, there are a number of existing platforms that provide their own forces and tools for learning, for example, Amazon (Azure), Yandex, Mail.ru are highly specialized platforms. With the help of artificial intelligence algorithms, it is possible to receive educational and personalized offers, information from search engines, taking into account individual preferences, connecting to online education, etc. Artificial intelligence enables infrastructure monitoring, large-scale data collection and processing, technical and medical diagnostic systems, creation of personal learning trajectories, behavioral analysis. Artificial intelligence is the whole spectrum of solutions from vacuum cleaners to space stations. This year, Gartner, an analytical company, published a study stating that artificial intelligence technologies are still in the development stage, and a fully developed market is far from being formed. According to the company's experts, many organizations want artificial intelligence to help solve industry problems. These companies want to leverage AI tools to anticipate risks and manage all processes based on forecasts.

Now researchers have more complex tasks. In particular, it is necessary to create new tools for Internet development, elimination of technological problems, digital economy. Also, one of the main tasks of Uzbek researchers is to provide close assistance in the introduction of artificial intelligence to science.

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