Effectiveness Of Development Of Artificial Intelligence In Mobile Applications And Use In The Educational Systemd

Pardayeva G.A.[1], Norkulova D.R.[2]

[1]Doctor of Philosophy in Pedagogical Sciences. Associate Professor of the department of "Software of Information Technologies", Karshi branch of the Tashkent University of Information Technologies named after Muhammad al-Khwarizmi.
[2]Karshi branch of the Tashkent University of Information Technologies named after Muhammad al-Khwarizmi, student.

Abstract: In this article, opinions and scientific bases are presented about the formation of artificial intelligence in mobile applications and the effectiveness of its use in the educational system, and the wide coverage of artificial intelligence in education and other fields is highlighted.

Keywords: Interactive textbook, education, state, society, multimedia technologies, virtual laboratories, innovation, presentation, result.

Introduction: Artificial Intelligence (AI) or machine learning in mobile applications, also known as machine learning, is a technology used to read computer programs for learning, data analysis, and other purposes. lib, this field is developing rapidly. The formation of SI in mobile applications can be important for many areas of government and business. The following forces are used:

Data Analysis: SI is used to analyze data about users in mobile applications. This data helps to understand the preferences and emotions of the users. This is useful for increasing personalization, data loss, and better user feedback.

Training for Mobile Interfaces: Mobile apps use SI to help create user-friendly and useful interfaces. For example, by learning and understanding the user's words, a mobile application is able to provide functions that are important to manage the user's needs.

The use of artificial intelligence (AI) in mobile applications in the education system is important to provide students with the best and most active learning. This serves to create an opportunity to provide education in an individualized and most inclusive manner, according to the individual needs of each student.

The following benefits are possible in mobile applications for the use of artificial intelligence in education:

Individual Learning Paths: SI analyzes data about each student and identifies individual learning paths. Also, the study characteristics of the students determine the fixed study time. As a result, a personal study schedule is created for each student, and advice is given to improve his experience.

Data analysis for teachers: SI will also be useful for teachers. It collects information about students' learning processes, questions, and mistakes, and helps teachers to develop optimal teaching strategies based on this information.

Personalized recommendations and other analytics: Mobile apps use SI to provide personalized tips and recommendations for readers. Makes the learning process more effective by looking at characteristics of student learning and making recommendations to improve their learning. Adaptation and Monitoring: SI monitors student learning levels and monitors learning progress. Based on this information, the learning system adapts to the individual reactions of each student and determines the most useful and effective learning path for students by re-presenting the programming process.

Individualization of learning materials: SI is used to create and present learning materials individually for students. This allows students to learn through lessons, activities, and tests that work best for them. The use of artificial intelligence in mobile applications in the education system plays an important role in providing students with directions for individuality, effective learning and personal information. This method can be a great help to students in learning and improving their knowledge.

Automatic actions for queries: SI, used in mobile applications to analyze queries, find data and present results

LITERATURE ANALYSIS AND METHODOLOGY

According to the "Digital Uzbekistan - 2030" Strategy, the rapid introduction of artificial intelligence technologies and their widespread use in our country, digital to ensure the availability of information and their high quality, to create favorable conditions for the training of qualified personnel in this field.

Also, this document defines the main directions and principles of the application of artificial intelligence, as well as the development of the strategy for the development of artificial intelligence, which defines the conditions for the comprehensive formation of this field in the near and long term, in economic sectors and the social sphere, public administration. It envisages the development of artificial intelligence technologies in the system and the development of a legal framework defining uniform requirements, accountability, security and transparency in their use, improving the quality of public services in the interests of the population. In turn, artificial intelligence that encourages the wide use of artificial intelligence technologies to increase the efficiency of state bodies in data processing, conduct fundamental and applied scientific research on the development of useful technological

solutions, and their subsequent commercialization goals and tasks such as creating a local ecosystem of innovative developments in the field of In the decision, in which areas and how to use artificial intelligence technologies, the tasks envisaged in this regard are fully reflected. After considering what artificial intelligence means and why this group of technologies is so important, it is necessary to list the possible types of artificial intelligence. In special literature on computer science, the following types of artificial intelligence are often mentioned: - automated (capable of performing routine tasks);

- assistant (optimizes decisions made by a person); - expanded (capable of supporting human thinking in non-standard situations); Autonomous (performs activities independently as a person). This division shows the predictable expansion of the capabilities of artificial intelligence, and therefore it is customary to distinguish three types of artificial intelligence according to the level of complexity: 1) limited or narrow (weak) artificial intelligence (Artificial Narrow intelligence), created to solve a specific problem or relatively small problems; 2) general or strong artificial intelligence (Artificial General Intelligence), it is universal, it is on the same level as human intelligence and it is able to solve wide-scale problems; 3) artificial superintelligence (Artificial Superintelligence), which exceeds the level of individual or all humanity. According to the perception of the environment, artificial intelligence systems can be divided into four types. The first type: reactive or reactive system (can sense and respond to the environment). The second type: a system with limited memory (capable of adjusting its behavior based on previous experience). The third type: an intelligent system (with the ability to recognize thoughts and feelings). The fourth type: an artificial self-awareness system (it can form an image about itself and is not inferior to a person in terms of mental abilities). This classification is easily divided from the previous one. The first two types imply weak artificial intelligence, so far only such systems have been created. The emergence of a third type of artificial intelligence means that we are getting closer to creating strong artificial intelligence. Weak artificial intelligence can perform functions such as searching for information to choose the best solution, but does not have human emotions and consciousness, and only works within a predetermined range. However, such artificial intelligence systems are able to process data and perform tasks much faster than humans, so their use provides an opportunity to improve overall efficiency and quality of life. A reactive system, as the simplest type of artificial intelligence, perceives a situation and reacts to it without going beyond the situation. It does not form memory, that is, it does not rely on past experience to make decisions. An example of such artificial intelligence is the famous chess computer Deep Blu e, which defeated the world chess champion Garry Kasparov at the end of the 20th century. Structurally, Deep Blue consisted of two parts: a software part that was created on a general purpose computer and calculated the first few chess moves, and a hardware part in the form of special chess microprocessors that accelerated and deepened the search for information available in the system. The computer searched for solutions on a tree of chess moves, that is, based on 20 inputs, it could not estimate possible future moves based on a database of grandmaster games. The next stage of evolution is an artificial one with a limited memory intelligence, which takes into account already collected information - acquired experience, and fills with this experience a pre-programmed view of the world. Thus, such a system corrects its behavior for the future, taking into account experience, that is, information that was not initially included in its program. An example of such a system is an unmanned vehicle with still weak artificial intelligence. Thus, weak artificial intelligence is able to analyze data and choose the best solution, it performs these tasks faster than a person, but does not have human emotions and consciousness. The level of development of intelligence in existing artificial intelligence systems allows them to take into account the collected data and adjust their behavior based on the acquired experience. A strong or universal artificial intelligence with human-comparable reasoning capabilities does not yet exist. The efforts of many corporations, governments, developers and research groups are aimed at creating powerful artificial intelligence. The development of artificial intelligence technologies has been announced as one of the most important priorities in Russia, China, the USA, Great Britain, EU countries, and others, and the creation of "strong" artificial intelligence has been presented as the only task. objectives of such development. Hypothetical examples of "strong" artificial intelligence systems can be seen in films containing scenes of human interaction with machines that have feelings and consciousness (usually Android robots). Human intelligence enables abstract thinking, strategic thinking, and creative thinking. Such processes are difficult to understand and reproduce artificially, and this is precisely what is needed to create strong intelligence. Strong artificial intelligence will have human-like reasoning abilities:

- having consciousness;
- making judgments in conditions of uncertainty;
- inclusion of knowledge obtained in the decision-making process;
- offering innovative solutions.

Artificial intelligence is just an algorithm, a specific skill set for a machine

Although there are a large number of combinations of methods and algorithms that allow training, these skills are only specific, as opposed to a person with general skills, but algorithms are constantly changing. is going more complex and learning. One of the first conditions for the emergence of consciousness in artificial intelligence systems is the ability to perform "multimodal" behavior by integrating information from different sensory modalities (text, image, video, sound, etc.). As is characteristic of a human being, he also has information about different styles of the surrounding reality while building completely coherent "images of the world".

RESULTS AND DISCUSSION

Individual study directions are study plans and directions formed on the basis of each student's personal requirements, characteristics, and learning methods. It is one of the most inclusive methodologies to provide learning tailored to the individuality and abilities of the learner. We will consider the following individual study directions:

Identifying Individual Learning Paths: Identifying learning pathways begins with the individual needs and goals of each student. It is important in foreign institutions to talk with the student and make a questionnaire to find out what knowledge and skills the student wants to get, as well as in what areas he wants to develop, what he expects from his studies.

Analysis and Independent Learning: Learners should be exposed to educational processes that allow them to experiment with opportunities to analyze their own learning methods and analysis, make mistakes, and analyze their failures. This allows students to change the learning process and increase its effectiveness.

Proofreading and reinforcing inquiries: Throughout the learning process, students need to proofread and reinforce personalized inquiries to allow them to transform their learning. It helps students to change their learning, assess their goals and identify new optimal directions.

Personalization and Individualization: The educational system should use individualization in building personalized approaches for students. Appropriate lessons, exercises and tests tailored to students should be created based on the learning requirements and characteristics of each student.

Personal Vocabulary and Guides: During the reading process, students can enjoy learning by increasing their personal vocabulary and guides. In order to find satisfaction in learning, the student needs to find opportunities to express their thoughts, concepts and express their personal opinions.

Individualized study paths are important in making learning personal and effective for students. Each student can effectively and purposefully shape the learning process using individual study directions created according to his personal development, goals, and requirements.

Conclusion: To date, artificial intelligence is considered the most popular direction. This direction provides many advantages, for example, such methods are easy to use and do not require special mathematical knowledge, in addition, the use of neural networks allows to generalize and distinguish hidden differences between input and output data. Ultra-deep multimodal neural network models are already called basic models, their development is considered as a direct prospect of transition to strong artificial intelligence with an increase in the intellectual capacity of the system by further increasing the number of parameters.

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