

THE CONTENT OF THE CONCEPT OF ARTIFICIAL INTELLIGENCE AND ITS DEVELOPMENT STAGES

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The idea of artificial intelligence and research in this field - a scientific approach to the production of "intelligent machines" - first appeared in a scientific group organized in 1956 on the initiative of Professor John McCarthy of Stanford University (USA). This summer, a conference on artificial intelligence was held at Dartmouth University in the United States. 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 this conference. American computer scientist John McCarthy (1927-2011) made history as the author of the term "Artificial Intelligence".

The 80s of the 20th century began to be recognized as a discovery of artificial intelligence. 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, attention to 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 intensified, artificial intelligence tools have been perfected.

We can assume that the history of artificial intelligence begins with the creation of the first computers in the 40s. With the emergence of electronic computers with high (by the standards of that time) productivity, the first questions in the field of artificial intelligence began to appear: is it possible to create a machine whose intellectual abilities are the same as those of humans?

The next stage in the history of artificial intelligence is the 50s, when researchers tried to create intelligent machines imitating the human brain. These attempts failed due to the complete lack of both hardware and software. In 1956, a seminar was held at Stanford University (USA), where the term artificial intelligence was proposed for the first time. The 60s in the history of artificial intelligence were characterized by attempts to narrow the general methods of solving a wide class of problems by simulating the complex process of thinking.

The word "intellect" comes from the Latin word "intellectus", which means to know (to determine), to understand or to understand (intellect). In English, the term "artificial intelligence" is used in the concept of "logical reasoning ability" or "artificial intelligence".



Artificial intelligence is a technology that allows computers to think and act like humans. Artificial intelligence requires powerful computers, data, and artificial intelligence algorithms. It will help you to automate an optional field, analyze big data and achieve great results.

Among the many definitions of artificial intelligence, we will focus on the following

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- a scientific direction that solves the problems of mathematical, software or hardware modeling of intellectual types of human activity (games, pattern recognition, analytical activity, etc.);
- a technical or software system capable of performing creative tasks and storing knowledge about it. The intelligent system includes three main blocks: a database, a calculator, and an intelligent interface that allows communication with computers to enter data without specialized programs;
- a direction in informatics and information technologies with the task of creating smart programs or robots; the system's ability to analyze and interpret external data, learn independently, and use the acquired knowledge to solve problems.

Artificial intelligence is a machine that performs human-like cognitive functions. According to experts, the use of artificial intelligence helps to solve complex and complex tasks and increase efficiency. According to official sources on the Internet, in 2018, the Organization for Economic Cooperation and Development began to develop a Recommendation on artificial intelligence. Today, large companies are using different approaches to the development of artificial intelligence systems.

Usually, these developments are carried out in the following directions: for example, recognizing customers' faces, analyzing customer needs and creating individual offers; security systems (detection of cyber fraud, legalization of money obtained through criminal means); trading systems in financial markets. Neural networks. It is known that the human brain can process large amounts of information quickly. This is due to the parallel operation of millions of brain nerve cells - neurons. Biological neuron cells are considered the ideological basis of artificial neurons.

In the picture below, it is possible to summarize the areas of application of artificial intelligence in the fields of human activity. (Figure 1)

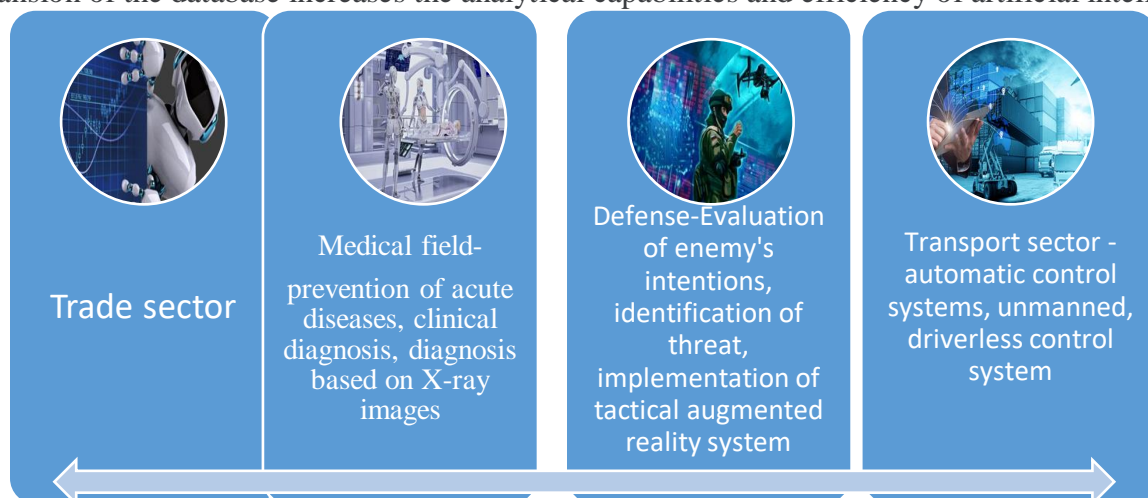
Trade - transactions are carried out at a speed significantly higher than the speed of work and, in principle, the speed of human thinking;

medicine - prevention of acute diseases, clinical diagnostics, diagnostics based on X-ray images - all these have recently entered into force of SI;

the role of artificial intelligence is also valuable in matters related to ensuring military affairs and state security. Assessing the intentions of the enemy, identifying and identifying the threat, implementing a tactical augmented reality system - the organization of such protection measures is now only engaged in by the SI;

The field of transport - artificial intelligence is steadily becoming an integral part of the transport system. Taxis, public transport, and rail transport have been using SI services for a long time, and according to experts, by 2035, unmanned technologies will make up the largest share of the total volume of transport, if on the market.

The basis of artificial intelligence is a database, and their source can be different. Regular filling and expansion of the database increases the analytical capabilities and efficiency of artificial intelligence.



<https://conferencea.org>November 15th 2022**Figure 1. Fields of application of artificial intelligence in the fields of human activity.**

It is known that modern artificial intelligence consists of algorithms and software systems designed to perform various actions, and performs a number of tasks that the human mind can perform on the basis of information entered into the information base. Also, artificial intelligence is a "smart" technology with the ability to make logical and consistent judgments and make recommendations, including programs that work with complex analyzes and big data. Experts consider artificial intelligence as the basis of the fourth industrial revolution.

Table 1

The main areas of application of artificial intelligence systems

Research and recommendation systems in the field of quality management	10,3
Diagnostic and treatment systems	10,0
Customer support with automated services	9,8
Automated threat prevention systems	9,8
Fraud analysis and investigation systems	9,0
Others	51,1

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It is possible to form an artificial intelligence database from currently available data sources in Uzbekistan and use them effectively. Including:

- Unified identification system - (id.gov.uz);
- Open data portal of the Republic of Uzbekistan - (data.gov.uz);
- Electronic government system database - (my.gov.uz);
- State Services Agency database - (davkhizmat.uz);
- database of various ministries and agencies.

Also, in the world experience, in the formation of an artificial intelligence database in programs oriented to the social sector, the data of national ID systems, population census and tax payer database, medicine, banking, insurance companies, store and market buyers, data of mobile communication operators and sources such as public utility payments and debt, credit history, activity in social networks are used within the law.

It should be noted that the privacy of personal data, their storage and management are important when introducing artificial intelligence into social and other fields. Because the ethical aspects of the use of artificial intelligence, especially the US, Great Britain, EU member states and leading international organizations, are in the focus of attention, the issue of human rights and personal data, and the political and corrupt use of artificial intelligence. The risk of using it for the first purposes is relevant. In some countries, in particular, China and Russia, there are accusations that artificial intelligence and ICT are being used to limit the personal rights and freedoms of citizens and for political purposes. Therefore, it is appropriate to pay special attention to these issues when creating legal bases for the use of artificial intelligence.

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