

ARTIFICIAL INTELLIGENCE: HISTORY AND PROSPECTS OF DEVELOPMENT

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What is Artificial Intelligence? An analogue of human brain in a metal wrapper, possibility of eternal life or a threat? People like famous physicist Stephen Hawking and the businessman Elon Musk consider Artificial Intelligence as a great threat to humanity. Elon Musk says that artificial intelligence will make a people unnecessary and redundant. Furthermore, one day there will be super-intelligent creatures or aliens on the Earth who will treat us the way we treat animals. Undoubtedly, artificial intelligence is increasingly affecting our lives and playing a major role in the world. For example, in China there are surveillance cameras that recognize people's faces. [1]. A camera records every step of a person and evaluates their behavior according to what it sees.

Opportunities. A computer system can perform only one task simultaneously: recognize faces, play chess, etc.. Researchers are trying to create artificial intelligence that will be able to perform several tasks at once. They tried to create computer code with logic. We are people who think logically and rationally, that is what computers have tried to do. However now this approach is changing due to the increase in the power of the computer itself. Computers still function on the logical work of a neural network, but such a neural network is a simplified version of how the human brain works. [3]. Hence, computers still do the same thing and still can't work better than humans. The system, for example, cannot recognize a cat in a picture because there are a millions of similar cats. A small child who has ever seen this cat recognizes it. Therefore, we know little about how our brain works. Scientists are trying to create computers based on a model of the human brain. To do this, they use dead people's brains, from which very thin layers are cut a million times and studied with the help of computers and artificial intelligence. Based on the obtained data, a diagram of the human brain is created, but even optimists acknowledge that such a learning process is time consuming and will take at least several decades. [2].

Relevance. One of the most important components of the development of modern information technology is the creation and use of artificial intelligence systems. The demand for such technologies is growing rapidly. Developments such as a computer system for phonemic recognition of language images are being actively developed and implemented as well as a scientific concept "Artificial personality", computer system for human face recognition, mobile intellectual and mechanical work with voice control, computer tests of human intellectual abilities, electronic learning tools (textbooks, manuals, tutorials, computer games). [5]. Everyday life includes scanning and text recognition systems, language recognition systems, machine translation from one language to another, etc.

Directions of development and application. One of the most important applications of artificial intelligence is scientific research. Hundreds of exoplanets have been discovered with the help of artificial intelligence; it is used for biological research and the creation of drugs for curing diseases, modeling of chemical and physical processes and much more.

Computer game developers are actively using artificial intelligence for various purposes: dynamic construction of levels, imitation of the behavior of living organisms, calculation of economic strategy, etc. [4]. The use of artificial intelligence is quite variable. Banks use artificial intelligence systems to calculate insurance data and exchange activities, which are performed using actuarial mathematics, which involves the construction of models that can be used to train artificial intelligence. Image recognition methods are divided into 2 main areas: the study of image recognition abilities inherent in living organisms, and their classification, and the development of theory and methods of constructing algorithms designed to solve specialized problems for applied purposes. [1].

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