Artificial Intelligence (AI)

Artificial intelligence is a discipline that studies the possibility of creating programs for solving problems that require a certain amount of intellectual effort when performed by humans.

- Science called "artificial intelligence" is included in the complex of computer science, and the technologies created on its basis belong to information technologies.

- The task of this science is to achieve reasonable reasoning and actions using computing systems and other artificial devices.

- The goal of research in the field of artificial intelligence is to create an arsenal of metaprocedures sufficient for computers (or other technical systems, for example, robots) to find solutions by the formulation of problems.

Research in the field of artificial intelligence is carried out in two directions:

1. bionic - attempts to simulate the psychophysiological activity of the human brain with the help of artificial systems in order to create an artificial mind;
2. pragmatic - the creation of programs that allow using a computer to reproduce not the thinking activity itself, but the processes that are its results. The most important results of practical value have been achieved here.

The first direction is neurocybernetics

It is based on hardware modeling of the human brain, which is based on a large number (about 14 billion) of connected and interacting nerve cells - neurons. Back in the 1950s, a threshold device for simulating a nerve cell, the perceptron, was created. On the first computers of low productivity, the biological structure of the brain was not realized. Now microelectronics makes it possible to build computational structures consisting of several thousand microprocessors - neurocomputers. Their main feature is the ability to change the internal structure and thereby learn as a person.

The second direction is the pragmatic direction of AI

The result is a computer software for solving intellectual problems. These are, first of all, natural language programs. They allow you to: translate text from one language into another, compose abstracts of large documents, compose texts for fairy tales and poems, scripts for television series (soap operas). Music programs can compose pieces of music, analyze finished pieces of music, and imitate various performing styles.

THANK YOU FOR THE ATTENTION!!!