

FEATURES OF MODERN SCIENCE

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The responsibility of continuing the achievements gained due to independence, thinking about the intellectual potential of the country, successfully moving forward along the path of comprehensive development of society, strengthening its independence falls on the masses of today's creative (researchers). Therefore, the use of new machines, machines, methodologies, algorithms, models, computers, etc., created on the basis of the achievements of Science and Technology, Automatic control of their preparation and introduction into practice, requires great scientific training from people.

Looking at the progress of Science and technology over the next quarter of a century, we will witness the emergence of laws, theories, methodologies and various scientific hepotizes throughout this period, especially in Physics, Mathematics, Mechanics, chemistry, biology, logic, psychology and the like, and at the same time in technology with completely new qualities and principles. The interaction of Sciences began to accelerate, and new branches of science began to appear. These, in turn, also serve for the advancement of technology. In this regard, the delivery of achievements of Science and technology to young people in turn is a requirement for the lessons of the present time, through which a detachment of people (researchers) with intellectual potential is formed in our country.

Today's rising science helps us to understand the laws of society and the essence of phenomena in nature, the development of the environment that surrounds us. In modern times, when there is a radical change in the development of Science and technology, development in the world of science has reached a new level, and modern sciences have begun to take shape.

We will reflect on some of them here:

1. The science of automation.

Automatics rose to the stage of its development at the beginning of the XIX century. Automatics is not only a self-controlled device, but it is also the science of automatic control of the technique. The science of automation is designed to serve to automatically control the development of events of nature and society, freeing people from hard physical labor, accelerating progress, leaving it a control-control function in people. For these reasons, it directly becomes a system of productive forces and serves the development of our society.

2. The science of cybernetics.

The second half of the XIX century at the beginning of the XX century, science and technology developed at an unprecedented level. During this period, automation of industry, transport and other industries was introduced. On the basis of the development of the theory of automatic control, a science called "cybernetics" arose.

"Cybernetics (Greek kybemetile – the art of management) is a science that deals with the reception, storage of Information, its processing, and its use in the management of various processes. It arose as the results of the development of theories and practices of automatic control, computational techniques, neurophysiology and mathematical logic. The technical

basis of cybernetics is exposure. They open up wide opportunities for solving issues related to human thinking. The term "cybernetics" was first mentioned by the Greek philosopher Plato. As early as the 17th century B. Pascal (France) had invented a simple mechanical arithmetic. Only by the XIX century, Ch. Bebbj (England) tried to create a digital automatic counting machine similar to the current exposure. At the beginning of the 20th century, an electromechanical analytical computing machine was created. In 1938, K. Shannon (USA), in 1941 V.I. Shestakovich (Russia) showed that the Real contact scheme of the logical mathematical apparatus can be used for synthesis and analysis. On the basis of these, the theory of Automata began to develop. From the 40s of the XX century J. The exposure created by von Neumann (Germany) and others was decisive in the formation of cybernetics. Summarizing all this, N. Viner (USA) wrote his book cybernetics (1947). He recommended that cybernetics be called "the science of communication and control in a living being and machine." Today's science of cybernetics has a number of independent directions. They are: technical cybernetics; economic cybernetics; Biological Cybernetics; medical cybernetics; mathematical linguistics, etc.

The modern educational system has a complex structure, which includes technological, pedagogical, organizational, economic and theoretical-methodological parts with complex connections between other areas of social life. The traditional education system differs from the modern education system in that it is not considered to separate the technological part. Because, since the traditional education system is designed to teach based on the "face-to-face" teaching style and printed materials, the technological part is not sufficiently developed.

Hence, the fact that in a modern educational system, unlike the traditional one, there is a more regular feedback than from a cybernetic point of view, and this is the achievement of optimal management of education through the implementation of appropriate adjustments based on the result of communication. "Management not only studies the information nature of managerial influences and feedback, but in it the focus is on the objects and subjects of management, the mechanisms of formation of managerial influences, the methods and results of their influence on the object of management"[2].

For this reason, in the management of Education, attention is also paid to the collection and storage of information necessary by the administrator, the activities of the developer and executive persons of the decisions made by people on management, the orientation of the content of education with the help of management and the possibility of making changes to the direction of Education. To carry out such complex management, it is necessary to analyze and clarify its purpose, task and forms of Management in depth. We will dwell on this in more detail in later parts of this monograph.

3. Computer science.

"Informatics; (French informatique, nem. Informatics-information), Information Science-Scientific science, which deals with the study of the essence, general properties and laws of scientific information (Information, Message, information), as well as the system of scientific communication (a set of methods and means of disseminating the same scientific information); the sphere in which human activity is associated with exposure, computers".

4. The science of Cosmonautics.

"Cosmonautics (space and the Greek nautike – the art of ship control)-space flight; a set of fields of Science and technology that provide the study of space and extraterrestrial space objects using various space apparatus".

5. Mathematical linguistics.

Mathematical linguistics consists of a branch of the science of linguistics, which uses the method of abstract semantic modeling of the phenomena of natural languages and the processes of their research.

6. Bionics science.

"Bionics (Greek bion–element of life, original meaning – living) is a branch of biology and cybernetics that studies the structure and life activity of organisms with the aim of creating more perfect technical means or devices".

7. The science of Social Psychology.

The study of social psychology as a science was introduced from the 2nd half of the XIX century. Basically, it was recognized as a science from 1908. Social psychology studies:

- laws of communication, handling;
- interpersonal relationships and individual and collective interactions;
- internal and external structure of teams, their types and classification;
- public cases and actions;
- studies social and national consciousness, mentality, Milian appearance, character, Taste, Tradition, habit, ritual, etc.

8. The science of electronics.

Electronics is the science of creating electronic devices and devices that work on the basis of electronic and Ionic phenomena, studying phenomena that occur when electrons and ions interact with an electromagnetic field, gases, liquids, solids, and plasma.

9. The science of artificial intelligence. What is artificial intelligence?

To do this, first of all, let's answer the question of what intelligence is.

When it is called intelligence, we are used to understanding some kind of holistic thing that allows a person to subtly understand the changes of the outside world and adapt himself to this assimilation. However, can one not understand the spectrum of confused properties, the behavior of which, when called intelligence, does not surprise when each is viewed separately, but is manifested by several in one way or another, has a meaningful character? The purpose of this approach is to create an artificial intelligence system, that is, to identify the possibilities of exposure to imitate the activities performed by Man, which we tend to consider creative and intellectual.

Artificial intelligence is understood as the imitation of the human-performed activity of a computer.

And the problem of creating artificial intelligence is directly related to determining the capabilities of a computer to imitate human significance.

The complex scientific and technical problem of creating artificial intelligence combines four areas:

10. The science of globalistics. Globalistics is the science of the study of the most general laws of human development in scientific and spiritual harmony, comprehending the meanings of the French global – general, Latin globus—land sphere.

From the characteristics of the considered modern sciences, it became clear that the integration of the content of Sciences would be the basis for the development of Science and the emergence of independent directions of Science from them.

And the development of science will undoubtedly serve to comprehensively satisfy the factor of the development of society and the needs of human life, and will also increase the intellectual potential of the same society.