

METHODOLOGICAL FUNCTION OF THE INFORMATION PICTURE OF THE WORLD

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Abstract: *Modern computer science raises the problems of a philosophical nature, to which one can relate the questions connected with the methodological function of the information picture of the world. Informatics uses the information approach and methods of information modeling of the phenomena studied. The essence of the methodological function of the information picture of the world lies in the fact that when studying any object, process or phenomenon in nature and society, the most informative aspects that determine their state and development are firstly identified and analyzed.*

Keywords: *picture of the world, informatics, information, methodological function, cognitive activity.*

Recognition of the methodological significance of the scientific picture of the world in human cognitive activity is a common place in the methodology of cognition. This is recorded, for example, by Academician V.S. Stepin. "As the most important components, that form the basis of science, we can distinguish: 1) the scientific picture of the world; 2) ideals and norms of scientific knowledge; 3) the philosophical foundations of science.

The listed components express general ideas about the specifics of the subject of scientific research, about the features of cognitive activity mastering this or that type of objects, and about the nature of the connections of science with the culture of the corresponding historical epoch "[1, p. 188]. And further the author emphasizes, that "the analysis of various scientific disciplines allows to draw a conclusion about the universality of cognitive situations associated with the functioning of special scientific world pictures (pictures of reality under investigation) as research programs directly regulating the empirical search and their development under the influence of empirical facts" [1, p. 313].

This research program integrated into the content of the scientific picture of the world is a specific methodological procedure from the operational point of view. In the most general terms, this methodological procedure is a set of approaches, methods, programs, principles, techniques, algorithms.

In this set of methodological tools of scientific knowledge, the least researched and at the same time effective approach is. The approach can be described as follows.

First, the approach is less formalized methodological education. Therefore, the concept of "approach" is often used in those situations when one or another subject area of science is methodologically still imperfect. In this case, we are only looking for approaches to the problem. It is quite possible, that the approach is already indicated, but there is still no clearly worked out method.

Secondly, the approach is a less directive methodological education. As a rule, the approach obviously has or suggests alternatives in the form of other approaches. Therefore, the concept of "approach" is often used in situations where the very possibility of a single methodology is excluded (for example, in some humanitarian directions).

Third, the approach is a larger methodological education. A whole set of methods can be used in one approach. Therefore, the concept of "approach" is often used in those situations where the initial methodological idea can be implemented in a variety of ways. For example, there may be a search for an optimal method within the framework of an approach [2, p. 58].

With the method the situation is more specific. There is a sufficient amount of literature in which the method is examined as a cognitive tool. As a summary of this issue, let us turn to the point of view of the famous researcher V.K. Lukashovich. He believes, that "the analysis of the definitions of the scientific method shows, that this component of cognitive activity is one of its normative programming elements, namely, a certain set of normative knowledge regulating the content and sequence of cognitive actions (operations, procedures) of the subject. The nature of the determinants, aims and general orientation of the research process to achieve objective truth causes a specific relationship of the method with other components of cognitive activity and, first of all, with the object under study "[3, p. 36].

The above interpretations of the approach and method are then necessary to explain the position taken in this study, in relation to those already existing on this issue. As for the interpretation of concepts, the program, methodology, method, algorithm, they are well known and commonly used in methodological and guidance literature.

So, let's consider the methodological function of the information picture of the world.

It was a characteristic feature of the process of cognition in the 20th century that "in the sphere of scientific research objects of a fundamentally different (in comparison with the studied) system organization are continuously involved: large dynamic systems, nonlinear, self-organizing, self-learning, etc. The recognition by the cognizing subject that he deals with an object of a different nature is most often a difficult and lengthy process, which is necessarily connected with the development of fundamentally new methods adequate to the object under study "[3, p. 6]. This statement is applicable to computer science, because information becomes an object

of emerging information sciences in fact only from the 40s of the twentieth century. The process of constructing a method is based on a more or less holistic view of the objects under investigation [3, p. 61].

Informatics is a science that is at the stage of formation. Being, as a matter of fact, a synthesis of scientific, technical and social knowledge, computer science has not acquired a common method to date. Therefore, it operates with such a methodological tool as an approach [4, p. 91]. In general, three approaches have been developed in informatics: attributive, functional, semiotic. The reliance on these approaches gives a general view of the phenomenon of information. They constitute the philosophical and methodological basis of the information picture of the world.

The specificity of these approaches is statistical, semantic, pragmatic, as the most significant in computer science.

The statistical approach is presented in the special information theory, which deals with the mathematical description and evaluation of methods of transmission, storage, retrieval and classification of information. The statistical approach to its content includes methods of probability theory, mathematical statistics, linear algebra, etc.

The semantic approach is based on the semantic content of information. In computer science, semantics means a set of rules for correspondence between formal expressions and their interpretation with respect to sign systems. These are natural languages and artificial languages. Including algorithmic languages, programming languages, information languages, etc.

The pragmatic approach is based on the analysis of the value of information, which is associated with time, because over time it "grows old". Thus, the pragmatic approach reveals the content aspect of information, which is very important for a variety of spheres of social and individual life, makes the interrelation between society and the individual relevant.

The "approach" based methodology of informatics is noteworthy, on the one hand, because it fixes the complexity of the information phenomenon, and, on the other hand, because it expresses the growing need of modern society for using this phenomenon, due to the increasing dynamics of the subject field in computer science [5, p. 275]. Therefore, discussions about the information society, information culture, the personality in the information society, etc., are unfolding.

From a methodological point of view, the goal of informatics is to study the general properties and structure of scientific information with the identification of regularities in the processes of communication. Informatics, studying information processes and methods of their automation, provides the user with methodological bases for constructing an information model of the object. The social subject perceives these methodological bases through mastering the foundations of information technology, which represent a set of methods and ways for obtaining, processing, presenting information aimed at changing its state, properties, form, content, and carried out in the interests of users.

As a rule, three levels are allocated in the system interpretation of information technologies.

The first level is theory. The main task: the creation of a set of interrelated models of information processes that are compatible parametrically and critically.

The second level is research. The main task: the development of methods that allow to automate the design of optimal specific information technologies.

The third level is application, which is expedient to divide into two components: instrumental and subject. The first determines the ways and means of implementing information technologies, which are divided into methodical, informational, mathematical, algorithmic, technical, software, the second is related to the specificity of a particular subject area and is reflected in specialized information technologies, for example, organizational management, computer-aided design, etc.

It is obvious, that the methodological and guidance aspects of the development of information in computer science have been developed quite specifically over the entire line of communication between theory and practice. The fact, that an individual in the process of mastering information processes consciously learns the technique and methods of working with both a separate computer and work, for example, on the Internet, that is, the user is already methodically equipped, and the professional methodologically. In general, that means that the methodological field of the information picture of the world has a "continuous" character without any gaps.

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