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FUNDAMENTAL MECHANISMS OF THE INFORMATION ECONOMY

In the industrial economy, the main theoretical conclusions are reached through a formal-logical analysis of the initial principles, i.e. establishing identical or different features of the phenomena under study. The largest representatives of this formalist trend among modern economists are *J. Debre* and *R. Lucas*.

Meanwhile, when analyzing the process of transition to an information economy, it is necessary to keep in mind alternative scenarios for the development of events, compare them, and have your own clear and reasonable idea of information development and likely results. A large place here should be given to the skills of empirical virtualization of the processes under study based onsetting the parameters of the predictive algorithm according to the arrays of empirical data available to researchers [9,11].

The basis of all interactions in the world is the movement of energy and matter. But from a philosophical point of view, the movement of atoms, as particles of matter, is determined not only by energy, it is determined by the indicator of momentum or the magnitude of the momentum, which is a direction vector. It is the direction vector that leads to the ordering of the movement of atoms and contributes to the transformation of energy, including its transition from one state to another. The higher this order, the more complex and efficient systems can be created.

The well-known theorist of information economy *R. Nizhegorodtsev* believes that "information is the measure of all things, and every object, material or ideal, exists insofar as it carries information", "every phenomenon carries information about its essence" [7, p. 43]. From our position, under the influence of the information accumulated by the individual, a directed movement arises, as a result of which a form is formed, which, in fact, is also information. For example, when building a house, a builder does not just lay bricks, he strives to combine them in a certain sequence and give the result a certain shape, while the goal of his work is precisely the form of matter, i.e. information. So, the modern researcher of information economy *A. Demin* claims,

Thus, labor always implies an intellectual, subject only to man, transformation of information and knowledge accumulated in society. Of course, both energy and matter are consumed in the labor process, but in this case, energy, like matter-secondary and is only a condition of labor, but not its goal. This means that labor is an information-anthropogenic category. The use of any

means of labor implies the use of information/knowledge-so even the use of a simple hammer relies on the law of distribution of pressure depending on the area, the principle of leverage, Newton's law, etc.

It is impossible not to recall *K. Mar*x, who in his fundamental work "Capital" considered two types of labor - abstract, associated with the expenditure of "human labor in the physiological sense", "devoid of any form ..." and concrete, associated with the creation deterministic consumer properties of labor products, i.e. forms, structures. Thus, even *K. Marx* determined the relationship between energy and information manifestations in the economy. So, according to K. Marx, "concrete labor becomes a form of manifestation of its opposite, abstract human labor" [6, p. 68].

Thus, the information-anthropogenic component is by default integrated into any socio-economic processes. Exchange, production, distribution, consumption of any material objects (including in the agricultural and industrial economy) one way or another, it is included. Therefore, in our opinion,it is necessary to correct the main, target object of the information economy. All economic categories (profit, rent, income, etc.) are information-anthropogenic concepts,because they are a specific result of human activity, and the integrating basis of the latter is information.

The evolution of the modern socio-economic system is not a spontaneous process, but a process programmed and controlled by man. One cannot but agree with *K. Marx*: "Ideas do nothing at all. The implementation of ideas requires people who must use practical force" [5, p. 132]. The same opinion is shared by modern theorists of the information economy.*S. Dyatlov*: "All socio-economic concepts and real socio-economic objects are the product of the human personality" [3] and *K. Kelly*: "The basis of the new economy is technology, but human relations serve as the foundation for it" [10].

Thus, we propose to define all socioeconomic processes through the costs of intellectual modeling, i.e. the vector transformation of information (including materialized in objects) into knowledge, a material object, etc. From our position, intellectual modeling also exists in the case of a primitive physical labor, but its share in labor costs is extremely small [8].

In the process of labor, we create knowledge that saves the labor of other people through intelligent modeling. Thus, from our point of view, the value of labor saved:

$$Ce = Ci + Cl, \quad (1)$$

Where

Ci-the cost of intelligent modeling;

Cl is the total cost of social labor costs for the training of an individual.

As *K. Marx* wrote, "the good has a value only because human labor is embodied or materialized in it. How to measure the value of its value? Obviously, the amount of labor contained in it…" [6, p. 47]. From our position, there is no value outside of labor, but labor itself is inextricably linked with infor-

mation.Using the complementary method of information-anthropogenic analysis, we will reveal the cost of intelligent modeling:

$$Ci = Cv + Cn + Ck + Cp = Cd, \quad (2)$$

where C_v -the cost of interpersonal interactions of people in the process of creating wealth;

C_n -(the cost of navigation, i.e. the search for the necessary mental material, information);

C_k -the cost of the knowledge used in the modeling process;

C_p - the total cost of energy conversion in the labor process, which creates the technological prerequisites for the study;

Cd is the value of the knowledge created.

The greatest difficulty is to determine the value of the created intellectual modeling product - knowledge (Cd), which can only be determined empirically.

Knowledge as a result of intelligent modeling becomes a direct productive force, making changes to the two-factor model of the Cobb-Douglas production function:

$$Q = AK^a L^b Z^c, \quad (3)$$

where A is the production coefficient, reflecting the proportionality of all functions and changes when the basic technology changes;

K-capital;

L- labor;

Z- knowledge;

*a,b,c*are the coefficients of elasticity of the volume of production for the costs of capital, labor and knowledge [1-3].

Even at the stage of an agrarian society, information as an economic resource was inseparable from labor resources, since the information necessary for labor activity was acquired directly in the process of work, knowledge was passed down from generation to generation and was an integral attribute of the subject. From our position, the emergence of the information component of labor, as well as other factors of production, began at the stage of the agrarian economy.

It is appropriate to reprint of *K. Marx*, who said that the source of social wealth is not labor as such, but the appropriation of the general productive force based on a scientific understanding of nature and society, that is, on the development of scientific and technological progress [4, p. 213–215].

From our position, the evolution of the productive forces of civilization is determined not only by the volume and quality of the accumulated scientific and technical information, but also by the level of development of intellectual modeling methods. The degree of intellectual modeling of scientific knowledge is due to the most important needs of society - information. Accordingly, reproduction, training people in high-quality intellectual modeling is the main factor in socio-economic evolution.

Reference

1. Glukhov V.V. (2003) *Knowledge Economy*, St. Petersburg. 528 p.

2. Demin A. (2007) *Information theory of economics: Macromodel*. Moscow, 2007. 352 p.

3. Dyatlov S.A. (1999) Informational aspects of the analysis of economic phenomena *Economics of education*. No. 3. P. 31–44.

4. Marx K. (1955) *Economic manuscripts of 1857–1859*. Moscow, 1955. v. 46. Part 2.

5. Marx K., Engels F. (1955) *The Holy Family, or Criticism of Critical Criticism* / Moscow, 1955. v. 2 .

6. Marx, K. (1983) *Capital*. Moscow, 1983. v.1.

7. Nizhegorodtsev, R.M (2002) *Information Universe: Information bases of economic growth*. Moscow-Kostroma, 2002. 174 p.

8. Pomylev A. (2007) Evolutionary approach to the theory of information economy. *Management of social and economic systems*. No. 1. P. 48.

9. Strelnikov A.O. (2022) Knowledge as a competitive resource [electronic resource] // Access mode // http://informburo.ru/content/view/46/50/

10. Kelly K. (1998) New Rules for the New Economy. *Viking Adult.* No. 10. P. 137.

11. Stewart T. (2008) Intellectual Capital. London: Nicholas Brealey Publishing. 567 p.