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HUMAN DEVELOPMENT VECTOR IN THE INFORMATION SOCIETY

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Abstract

The article deals with the study of technics and technology by philosophers, starting with the French enlightenment philosophers and ending with representatives of technological determinism. Philosophers-educators, having overcome class prejudices, were the first to turn to the study of the sphere of craft activity, which was traditionally considered as the destiny of the lower strata of society. This was vividly reflected in the famous French Encyclopedia, as well as in a number of philosophical works by French authors. Then the initiative to study technical and technological problems passed to German philosophers. The undoubted merit belongs to K.Marx, who is sometimes called «the first philosopher of technology». Having identified the significant influence of technics and technology on the economy, he nevertheless considered material production to be the determining factor. Ultimately, he argued, the development of the productive forces will lead, as a result of the social revolution, to a communist society. In contrast to Marxism, and sometimes in opposition to it, technological determinism, on the contrary, considers technics and technology as the determinants of the world-historical process. According to technological determinism, the vector of human development isn't directed towards the communist, but towards the information society. By comparing the Marxist theory of society and the concepts of the development of society, created within the framework of technological determinism, the article concludes that, despite the differences between them, they belong to the same model – the technicist one, optimistic about technics and technology.

Keywords: Communist society, industrial society, information society, Marxism, philosophers-educators, technological determinism.

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1. Introduction

For a very long time, philosophers paid little or no attention to technologies and techniques that have been used by people since ancient times. The main reasons for the preservation over a long history of a huge distance between philosophy, on the one hand, and technics and technology, on the other one, there were that philosophy is a contemplative activity, theoretical knowledge, but technics and technology are practical activities, experimental recipe knowledge. Philosophy was initially presented as the lot of sages, thinkers, and technics and technology – the sphere of occupation of artisans, which corresponded to the class division of ancient and medieval society. The situation began to change radically only in the Renaissance and Reformation, when the class barriers began to collapse.

2. Problem Statement

The first philosophers who paid rapt of attention to technics and technology were famous French philosophers-enlighteners – D.Diderot, J.L.D'Alembert and others. In the famous «Encyclopedia, or Explanatory Dictionary of Sciences, Arts and Crafts» it is said: “In fact the purpose of an Encyclopedia is to collect scattered knowledge on the surface of the earth; to expose the general system to the men with whom we live and to transmit it to the men who will come after us…” (Encyclopedie, 1755, p. 635). Thanks to Diderot, the novelty of the «Encyclopedia» was manifested in the appeal to technical inventions and crafts, as well as in the supply of articles on these issues with drafts and drawings.

Another French philosopher, A. Saint-Simon, was the first to create a holistic concept of the impact of science, production and technical specialists on the socio-political processes taking place in society. He believed that the coming to power of representatives of scientific and technical knowledge was inevitable, because, in his opinion, this was an inevitable result of social development. Moreover, scientific and industrial principles can serve in the future as a solid foundation for the organization of an industrial society, which must be governed solely on rational grounds. Thanks to this politics will be an important complement to human science.

Saint-Simon also affirmed that the leading place in the social hierarchy had to belong to the «industrial class» - a new elite consisting of engineers, scientists and industrialists. Accordingly, the parliament in an industrial society should be three-tier in the form of three chambers: the «upper» chamber («chamber of inventions») should consist of elected engineers and artists; The «middle» chamber («examination chamber») should be represented by biologists, physicists and mathematicians delegated by scientific institutes; The «lower» house («house of commons») should include representatives from all industries.

Soon the German philosophers took the baton of the French philosophers: Schelling, Hegel, but especially Marx and Engels. Marx, searching for the driving forces of social development, its determinants, approached the study of the historical process from the materialistic standpoint. People, in his opinion, in the course of joint activities produce the means of subsistence they need, and thus they create their material life. Material social relations, formed in the process of production of material goods, determine all other forms of human activity – social, political and spiritual. Philosophy, morality, religion, law and other forms of social consciousness only reflect the material life of society. He expressed the

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essence of the materialist understanding of history in the following way: “The mode of production of material life determines the social, political and intellectual life process in general. It is not the consciousness of men that determines their being, but, on the contrary, their social being that determines their consciousness” (Marx, 1971, pp. 8-9).

According to this understanding of history, the foundation, the basis of any particular society is a certain system of production and production relations. According to Marx, there are several types of these relations and, accordingly, several systems or socio-economic formations those are qualitatively different from each other. In total, there are as many formations as there are basic modes of production (Marx has six of them – primitive, Asian, ancient, feudal, capitalist and communist). Socio-economic formations are types of society that represent certain stages of human development. From this point of view, the world history is, first of all, an evolutionary process of development with qualitative leaps – social revolutions leading to a change in socio-economic formations.

In any socio-economic formation, according to Marx's philosophy, the level of development of productive forces (objects of labor, means of labor and people) determines the level and nature of production relations. It is the course of the production process, with the use of tools and machines, that all socio-cultural changes occurring in society are determined. About how important is the development of technics and technology in the transition from one socio-economic formation to another, Marx, in particular, wrote that economic epochs don’t differ in what is produced, but in how it is produced, what means of labor (Marx, 1977). Even more famous is his statement that a hand mill will give you a society with a suzerain at its head, a steam mill – a society with an industrial capitalist. The technology is included in the determining factor in world history and also determines the method of exchange, distribution of products and thus the division into classes, relations of domination and subordination, states, politics, law, etc.

For Marx and Engels, technique was a kind of measure of the tempo and quality of historical development. In other words, if at the very beginning of the formation of capitalist society (16th – late 18th centuries) in the course of the scientific revolution the prerequisites for the accelerated development of science and technology were formed and the most important socio-cultural changes took place, then at the end of the 18th century the industrial revolution began, the industrial revolution, which subsequently covered almost the entire human civilization.

Under the «industrial revolution» the founders of Marxism understood the radical, qualitative transformation in technics and technology, leading to the replacement of the old means of labor with new ones, working on new principles and allowing to transport a much wider range of human labor functions to a machine than before. Its essence lies in the transition from manual technology (instruments of labor) to the machine, a transition in which the contradiction between the new needs of production and the inability of the old technical and technological foundations of production to satisfy them is eliminated. As soon as the tool itself is set in motion by the mechanism, as soon as it is from the tool of the worker, from such his instrument, the performance of which depends on his virtuosity and requires the application of his labor as an intermediary in the work process, it turns into the tool mechanism, - the machine takes the place of the tool. The machine acts as a revolutionized beginning in the mode of production in general, emanating from the capitalist mode of production.

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It should be noted that the basic categories of social philosophy and economic theory of Marx contain broad interpretations of technics and technology. By «technology» he meant not only inventions and artificially created objects by mankind, but also the social aspects of its origin and application. Also in technology, he noticed an active role in changing human needs and the forms of their satisfaction. In «Capital» he wrote that technology reveals the active relationship of man to nature, the direct process of the production of his life, and at the same time his social conditions of life and the spiritual ideas arising from them.

Marx's merit lies in the fact that he saw in technics and technology a great force capable for person and society's changing. It is no accident that he is sometimes called «the first philosopher of technology», although the authorship of this term belongs not to him, but to Kapp (2018). As the founder of the humanitarian-sociological direction in the philosophy of technology, Marx stood at the origins of technological determinism, within which the concepts of a new, information society were developed in the twentieth century (Nath, 2017).

3. Research Questions

Technological determinism is a concept that denotes a set of ideas united by the idea of the decisive role of technology in social development. Technological determinism includes the following postulates: 1) technology has «development autonomy» (it has an immanent evolutionary potential and its own logic of development, is independent of socio-cultural control up to its understanding as causa sui); 2) the development of technology is interpreted as progress (all technical innovations are considered advanced, and social progress is seen as a derivative of technical progress); 3) the development of technology is of an emergent nature, i.e. acts as a determinant of all social transformations and cultural modifications.

4. Purpose of the Study

In this study, the goal is to determine the vector of development of human society.

5. Research Methods

In the course of the research, the methods of analysis and synthesis were used, which are two universal, oppositely directed operations of the cognitive process. Through the analysis, the study was made of the basic concepts of technological determinism. With the help of synthesis, they were combined into a holistic view of modern society.

The comparative method was used to compare the Marxist theory of society and the concepts of technological determinism, to identify the similarities and differences between them.

The article underwent research of the works of K.Marx («Capital»; «To the Critique of Political Economy»), W.W.Rostow («Stages of Economic Growth. Non-Communist Manifesto»), R.Aron («Three essays on the industrial era»), J.K.Galbraith («New Industrial Society»), Z.Brzezinski («Between Two Ages: The Role of America in the Era of Technotronics»; «The Big Failure: The Birth and Death of Communism in the Twentieth Century»), D.Bell («The Coming Post-Industrial Society. Experience of

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Social Forecasting»), Y.Masuda («Information Society as a Post-Industrial Society»), E.Toffler («The Third Wave»), as well as articles published in Russian in the collections «New technocratic wave in the West» and «New post-industrial wave in the West».

6. Findings

The emergence of the concepts of the information society was associated with large-scale changes in the structure of the productive forces that took place in the advanced countries of the world. Integrated automation, computerization and robotization, information networks, national and international databases are the characteristic features of the information society (Gribanov et al., 2018). The leading factor in the development of such a society is information, which must be objective (independent of the will or desire of a person and of all mankind), reliable (corresponding to reality, reasonable, indisputable), accessible (guaranteed to be received by everyone and at any time) and quickly transmitted (distributed instantly, unhindered, uncensored). Only in this case can you make flawless decisions and perform flawless actions. Further development of the information society leads to the formation of a knowledge society in which knowledge will be the dominant value (Klimova, 2016; Karpov, 2015).

An illustrative example of incorrect definition of the vector of human development is Marxism with its idea of building a communist society. In the end, it turned out that communism is utopia. His main principle is «From each person according to his ability, to each one according to his needs!» can't be fulfilled because people's needs are unlimited. The aspiration of Soviet Russia and then the USSR to build communism ended in complete failure. Russia had to change the vector of development twice in the twentieth century (at the beginning and at the end): from the capitalist to the communist and vice versa, from the communist to the capitalist. As a result of a two-time change in the vector of development, Russia has suffered huge human and territorial losses.

Historical experience has also shown that the absolutization of the non-capitalist nature of production relations in socialist states made it impossible for Marxists in many countries to see the inexorable operation of the laws of structure and development of technology, which, contrary to their opinion, do not depend on the socio-political system (for example, man-made accidents and disasters occur both under capitalism and under socialism. N.I. Bukharin, one of the prominent figures of the Soviet communists, mistakenly believed that the socialist type of society mathematically changes the sign of development from minus under capitalism to plus. Subsequently, such misunderstanding of the development and functioning of technology often led to ignoring the negative consequences of its using (Lopatin, 2019). The most striking example of this is the catastrophe at the Chernobyl nuclear power plant that occurred in 1986, when the Soviet government tried to hide the fact of the explosion at the fourth power unit and the consequences of radiation pollution of a vast territory (Anisimov & Ryzhenkov, 2016).

Another mistake arises in the case of misunderstanding of the essence of the information society. The fact is that the term «postindustrial society» misled many, especially in the USSR and post-Soviet Russia. We understood that in a post-industrial society the «old» industry and the «new» one hasn't been needed yet, since its place will be taken by the service sector. The «old» industry was basically scrapped, but the «new» one was not considered necessary to create. It was believed that it would be enough to

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pump and sell oil, gas and other raw materials abroad, and to buy equipment and technologies with the proceeds (Bodrunov, 2015). This will be the «postindustrial», «informational» stage of the development of society. This is clearly a misconception that persists to this day. In fact, Russia needs modernization, reindustrialization.

In Russia, too, insufficient attention is paid to the scientific and scientific-technical intelligentsia, technocracy, in the language of technological determinism. The Russian state is not interested in transferring some of the powers of the scientific and scientific-technical intelligentsia («knowledge elite»), while the formation of technocracy as a social stratum and its transformation into an organic element of the ruling elite represent a natural result of the development of modern civilization. It is no coincidence that technocratic ideology has spread over the past decades in all countries of the postindustrial world. "The experience of the past, wrote Galbraith (2007, p.73), suggests that the source of power in the industrial enterprise will shift once again – this time from capital to organized knowledge. And we can assume that this will be reflected in the redistribution of power in society" (p. 73).

The growing intensity of the influence of technocracy is associated with the spread in society of techno-culture, which rationalizes, mechanizes, automates and robotizes all spheres of human life and activities. Technocracy is gradually acquiring a political role because its representatives have scientific competence, specialized knowledge and methods of making effective decisions. It is able to perform power functions in two ways: preparing managerial decisions and taking leadership positions. As a result, a technocratic elite was formed, for which the implementation of direct managerial functions became the main content of their professional activities. The knowledge elite can pose problems, initiate new questions and propose technical solutions for possible answers, but it does not have the power to say «yes» or «no». The latter is the prerogative of politicians, but not scientists. Bell (1980) wrote about it this way: "The idea that the knowledge elite will become a new power elite seems to me to be exaggerated" (p. 542). A complete substitution of science for politics is impossible, contrary to the dreams of early technocrats such as Saint-Simon.

As for Russia, it seems impossible to talk about any political influence of technocracy. In the Soviet period, a specific version of the technocratic elite was represented by the director corps, together with the ministerial bureaucracy, but now the directors of enterprises are classified as owners, not carriers of knowledge. The Soviet technocracy has lost its former social status, and a new technocracy that meets the standards of the information society has not yet emerged.

But perhaps the most important thing is that the information society is a network structure that has arisen as a result of the spread of digital information and communication technologies and is permeated with powerful horizontal social ties. It carries in itself a huge synergy of civil society institutions, has a high degree of self-organization of its citizens. For such a structure of society, the existence of a single center and vertical of management, a leading party or a generally recognized leader is optional. Here, the first place is taken by numerous social groups and individuals with inexhaustible creative potential, knowledge and abilities for self-realization (Besedina & Michurin, 2018).

Here, numerous social groups and individuals with an inexhaustible creative potential, knowledge and abilities for self-realization come out on top.

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Before in the twentieth century it was still possible to talk about the absolutization of technics and technology by technological determinism, and now the role of technics and technology has significantly increased. Therefore, it is now quite possible to assert that technological determinism adequately reflects the importance of technics and technology in modern society. Thanks in large part to technological determinism humanity is making a breakthrough into the future (Mezentsev, 2020).

7. Conclusion

Marxism and technological determinism are two of the largest philosophies with a huge focus on technics and technology. But if Marxism, having seen the significant influence of technics and technology on society and its development, remained committed to production and production relations, economic factors, then technological determinism, on the contrary, gives priority to technics and technology, and not to the economy. Based on the objective foundation of scientific laws, technological determinism assigns an important place to technocracy, the technocratic style of thinking, scientific and technical factor in general, and considers scientific and technical innovations as a stimulus and driving force for the development of society. As a result, in the dispute with Marxism, technological determinism turned out to be right: the vector of human development is directed not towards communist, but towards information society.

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