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Editor of series: Gligorije Zaječaranović
Address: Univerzitetski trg 2, 18000 Niš, YU
Tel: +381 18 547-095, Fax: +381 18 547-950

SOCIETY, TECHNOLOGY AND VIEW OF THE WORLD

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Simka Deletić

Faculty of Electronic Engineering, Niš, Yugoslavia

Abstract. *We live in the time of the third technological revolution, or technocratic revolution, as some theoreticians designate the end of the second millennium. Accepting this fact means the permanent consideration of mutual relation of society and technology, because the modern era shows numerous aspects of the interdependence of science and technology. Since a compressed report of very complex phenomenon is being discussed in this paper, the development of technology in dependence on social development, as well as the man's place in dependence on the development of technology and level of society development, are presented.*

Key words: *society, technology, view of the world*

A modern era is designated as an era of the third technological revolution. However, the society, appeared in a number of countries in the second half of the 20th century, is designated by various terms in the modern world literature. For a long time, the term "postindustrial society" had been accepted, and it was popularized by the American scientist D. Bell. In countries of the so-called "real-socialism", it was talked, the most often, about the "scientific-technical revolution", mainly under the influence of R. Richta's works. Also, after the publication of the book entitled *Megatrends* by J. Naisbitt, it is noticed the diffusion of the term "informatics revolutions", as well as "informatics society". Then Zbignev Brzezinsky (*Technocratic revolution*) introduced terms "technocratic revolution" and "technocratic society". Namely, he thinks that the technocratic revolution has greater importance than the French revolution and October socialist revolution, together.

It is obvious that there is no unity of terminology determination in the literature. But, disregarding the terminology distinction, a society, which appeared in highly developed countries in the second half of this century, should be meant by this term; and it is

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characterized by a spectrum of high technologies, new energy sources, new materials, as well as new values, ethics, and living criteria. It is passed from one industrial way of production, that was dominant in the developed countries till the fifties of this century, to the new form of production characterized by new accesses to the working process (to production, means of work, working objects, as well as to manpower).

What depth of changes is brought by the new thing appearing? Although it can be assumed that, in nowadays, there is the deepest transformation between the human and technical, it is interesting, and it is necessary, from the point of view of the designated theme, to discuss the former development of technology and the society situation which was suitable for this technology, as well as the man's place in the appropriate society with the appropriate technology.

Considering the relation: technology-society-view of the world leads to the brief explanation of the ideas themselves. Although, the beginning of technology can not be separated from the time of the society's origin, however, when it is talking about the technology, then it is usually thought that the idea of technology is identical to the greek idea "techne" that it is derived from. Namely, the Greek people thought that the idea technology designated the three following areas: 1. artistic and trade activity; 2. the science of rules which should be observed in an art or trade; 3. the area of applied sciences (mathematics, physics, chemistry) because of the goods production. The famous classical thinker Plato included the politics in the technology, too. The well-organized state, according to Plato, was a technocratic state. For Aristotle, the idea of techne means something that a man could made. It is necessary to notice that the idea of techne in the mentioned meanings is connected to the subject. In time, the idea of techne has been changing, that can be said for other numerous ideas during the development of the scientific opinion.

This could be said for the view of the world, too. If the view of the world is analyzed, it can be stated its changeableness during the time, i.e. its connection to the definite time and definite society. So, considering the phenomenon of the view of the world, Mr. G. Zaječaranović emphasizes the history of this phenomenon as the very important characteristic of the view of the world, which can not be overlooked or neglected. Naturally, it is not in contrast with the general regulation that "the view of the world represents the understanding of the nature, society and man", because it shows the definite differences found in some definitions.

Namely, the idea of the view of the world should be recognized from the idea of "the picture of the world", as the simple description and explanation of the world. The view of the world is not only the simple description of the world, but also "in the same time, *the view of the place, significance and role of a human* in the world, the view of human life and sense of the man's existence, and as such it expresses the emotional relation of the man towards the world and the judgment of the human's life value, as well as the world itself and everything in it" (Zaječaranović, 1978: 14). According to this, the view of the world would always be "the view of the society and man, the view of the life". However, it is not completed, final, given forever, but it is "*the expression of the definite time*, of a given epoch, concrete people or social groups of that epoch" (Zaječaranović, 1978: 17). In that sense, G.W.F. Hegel wrote: "as the individual is a child of its time; so the philosophy includes its time by thoughts" (Hegel, 1964: 18).

Although it is not possible to cite the precise classification, or the severe typology of

the view of the world, it is said of classical, medieval, new century or modern view of the world. Taking the subject matter, i.e. the most important questions for the view of the world into consideration, it can be talking about the religious, philosophical, or the scientific view of the world. Also, combinations of some views, such as, for example, religion with philosophy, ethics or science, are possible.

Taking the given theme into consideration, the relation of the society, technology and the view of the world, how the human knowledge is changed and how the technique of work object adaptation is developed, will be discussed. The influence of the technology development on creating and changing the view of the world can be analyzed from different points of view, and different consequences can be drawn from that. The choice is aimed at some epochs of the society's development which differ essentially among themselves according to technologies. Namely, a definite state of technique and technology corresponds to one society, and the different development of technology is typical to the other one. Today, the differentiation of pre-industrial and industrial civilization is generally recognized. From the point of view of making and multiplying capital goods and labor, the most important changes happened in the epoch of industrialization, although it is possible to recognize different technological developments of these epochs themselves. Considering changes in the structure and dynamics of capital goods and labor of some epochs, R. Richta mentioned the essential relation between society and technology. Changes in the structure and dynamics of capital goods and labor, at least in their beginnings, proved themselves as "really a technical matter, to be indifferent toward the social order and relations between people" (Richta et al., 1972: 37). However, deeper consideration of society-technology relations is always proved that the separation of technical changes from the social ones is valid only in a certain sense, and in essence, the separation of the society and technology is "only specific form of their inside unity - a level characteristic especially for the industrial civilization" (Richta et al., 1972: 37).

In fact, different societies rely on different capital goods and labor. Karl Marx and Friedrich Engels, in their analyses of the capitalist societies, differentiated natural capital goods and labor (earth, natural materials, natural energy, human body) from social capital goods and labor made by men's work (division of labor, cooperation, machines, human skill, production accumulation, collective manpower, communications means, and sometimes a market). But, disregarding the fact that the technique and technology are today essentially different than in the Marx and Engels time, this general historical understanding is unavoidable in analyzing this phenomenon.

Truly, the sphere of capital goods and labor is changeable on the scope and structure. So, for example, the elemental division of labor and collaboration of workers was the first great capital goods and labor which characterized the first natural society. Then, the classical society turned slaves into the basic capital goods and labor. In the feudalism, the earth took the central part among capital goods and labors, and an integral part of these capital goods and labors was a landless peasant, and the technology was still primitive. Not until the development of manufacturing and industry, the idea of "capital goods and labor" includes a man as a free manpower and machines as the technical element of production powers. New productions powers, which development was connected to the origin and development of the civil society, brought some new ideas.

It can be said that the 16th and 17th century represented the turning point in studying

the natural and social sciences. That was the time of Kopernik, Köpler and Gallilei, as well as Descartes and Bacon; so, the time when the new natural science and new philosophy were born. Bacon wrote, in 1598., "knowledge is a power", having resisted, in that way, the medieval view of the world. That was also the time of the young bourgeoisie's rise and the establishment of new capitalist relations which would have essentially influenced the creation of new picture of the world. It can be said that the general quantity idealization appears, which can be noticed at the great thinkers of that time, such as Descartes, Leibniz, Spinoza, etc. The idea that mathematics, geometry and mechanics were models of other sciences, and philosophy too, was prior. Mechanistic view of the world, formed under the influence of these sciences, represented the basis of the world thinking.

Now, the idea of technology also takes the somewhat different meaning. New century brought the newly century idea of technology. Namely, the idea of technology lost an anthropology sense, which was contained in its original meaning. It is interesting that, in the epoch of sudden industrialization, interpretations of the social "neutrality" of the technology appeared. The reason for this should be in accepting the technical-technological development as a criterion of the general progress, as well as in capital goods and labors themselves which "in any other previous period did not ... take this indifferent look toward the relations of individuals *as a personality...*" (K. Marx, F. Engels, 1964). Later on, it will considerably influence the creation of the whole human relation toward the world and the sense of life. Naturally, it should not be concluded from this that it would be better for the humanity if there was no such technical-technological development. Regarding this R. Richta wrote: "the man of the industrial epoch takes in himself boundaries of his civilization achievements", that reflects needs, ideas, capabilities, but also the life motivation (Richta et al., 1972: 156). To what extent these boundaries are realized it can be presented by observing the most developed industrial society that H. Marcuse especially wrote about in his works *A Man of one dimension: Discussions about the ideology of the developed industrial society, Industrialization and capitalism in Maks Weber's work*, etc. Namely, in the technology he recognizes the definite social-historical project in which "something is projected that the society and interests controlling them think to do with man and things" (H. Marcuse, 1977). So, H. Marcuse emphasized " 'neutral' scientific method and technology are the science and technology of the historical phase which is exceeded by its own achievements" (H. Marcuse, 1989: 216).

Nowadays, it is speaking of a new phenomenon of technique, although it can be said that more important changes happened at the beginning of the 20th century. By the appearance of the two new theories, the quantum one and the theory of relativity, the newly century mechanistic view of the world started to change. The next changes which marked the 20th century, especially its second half, marked the modern era as the era of technology. Namely, it is said of "postindustrial" or "microcomputer" technology which is defined as a radical new technology by many theoreticians of the postindustrial society. In connection with this, the phenomenon "technicism", as a new view of the world, appears. The technicism as a way of thinking starts from the level of the technique and technology development as a criterion of the whole development of society, neglected the socio-social context. There are many criticisms of this understanding of the technology and society. Some theoreticians explain the postindustrial technology only as a continuation of

the industrial technology, and not as a radically new type of technology accepted by the technocratic theories.

The modern era, characterized by the complete use of highly developed technology, discovers, more than other epochs, the contradictory character of the technology itself. The modern technology is a means without which the further development of humanity is not conceivable. In that sense, the technocratic development represents the prior aim of each society. That's why a great effort and investments in the development of technique and technology are done. But, in the modern world the significant social consequences of such technological progress are felt. Therefore, it is frequently speaking of the negative consequences of the technical progress, i.e. of the technology that is destructive and threatens to destroy the humanistic values, or even to enslave a man completely. These are only the more severe judgments of the technology from which it can be concluded that the technology more threatens than promises. Even in the first decennium of the 20th century, Max Weber wrote that "the modern industrial civilization destroys the spiritual image of the humanity" (Weber, 1976). It is obvious that such technology can not be estimated as a radically new technology that some theoreticians of the postindustrial society insist on.

However, more and more, two phenomena of technology are mentioned in the literature. According to the first one, the technology includes the purely performing work; it is "the technology developed without the creativity", which aim is the greater production, profit and power which does not include the valuable system. According to the second one, the technology "... has, as the aim, the greatest value - improving the man's position: more freedom, happiness, dignity, and it is really only one aspect of arête" (B. Telebaković, *Etika i tehnika*, in: *Društvo i tehnika*, 1988: 62). This technology can be considered as "different technology", or as "radically new technology". This technology can not be developed without the quality, creativity and valuable system. There are ideas considering this technology only as a kind of utopia.

However, the accumulation of numerous unsolved problems in the modern world (the social, economical, political, religious ones) with the real ecological catastrophe provoked the critical proportion pointing to the necessity of redefinition of the society development visions. It is speaking, more and more, about the establishment of new "essential consensus" of "obligatory values" of the society development, as Hans Kung, a director of the global ethical foundation in Tübingen, has recently emphasized. If it can be said that the technology was the challenge of the 20th century, then it can be said that the ethics is the challenge to the next century world. It seems that the common humane ethical codex can be achieved today more difficulty than ever before. But, certainly the hope is also important, and according to it religions, governments and corporations should talk about the basic ethical codex: obligatory values, irrevocable standards and personal things than can be shared by all people.

REFERENCES

1. M. Veber, *Privreda i društvo*, tom I-II, Beograd, 1976.
2. J.K. Galbraith, *Nova industrijska država*, Stvarnost, Zagreb, 1970.
3. P.F. Drucker, *Postkapitalističko društvo*, Grmeč: Privredni pregled, Beograd, 1995.
4. S. Deletić, *Teorije o društvenom razvoju*, Naučna knjiga, Beograd, 1993.

5. S. Delečić, *Contemporary society in transformation*, Facta Universitatis, Series: Philosophy and Sociology, Vol. 1, No. 1, University of Niš, 1994.
6. S. Delečić, *Moderno tehnološko doba i budućnost čoveka: Etika inženjera*, Gradina: JUNIR, Niš, 1995.
7. *Društvo i tehnika*, zbornik radova, Beograd, 1988.
8. G. Zaječaranović, *Dijalektika ljudskog sveta*, Centar za političke studije, Novi Sad, 1969.
9. G. Zaječaranović, *Pojam i definicija pogleda na svet*, Zbornik radova Filozofskog fakulteta u Nišu, Niš, 1978.
10. K. Marks, F. Engels, *Nemačka ideologija*, Kultura, Beograd, 1964.
11. K. Marks, *Kapital I-III*, BIGZ: Prosveta, Beograd, 1973.
12. H. Markuze, *Kultura i društvo: Industrijalizacija i kapitalizam u delu Maksa Vebera*, BIGZ, Beograd, 1977.
13. H. Markuze, *Čovjek jedne dimenzije*, V. Masleša: Svijetlost, Sarajevo, 1989.
14. Lj. R. Mitrović, *Savremeno društvo: strategije razvoja i akteri*, Beograd, 1996.
15. J. Naisbitt, *Megatrendovi*, Globus, Zagreb, 1985.
16. T. Parsons, *Moderna društva*, Gradina, Niš, 1992.
17. R. Rihta i saradnici, *Civilizacija na raskršću*, Komunist, Beograd, 1972.
18. A. Touraine, *Postindustrijsko društvo*, Globus, Zagreb, 1980.
19. A. Toffler, *Šok budućnosti*, Otokar Keršovani, Rijeka, 1975.
20. G.W.F. Hegel, *Osnovne crte filozofije prava*, V. Masleša, Sarajevo, 1964.

DRUŠTVO, TEHNIKA I POGLED NA SVET

Simka Delečić

Živimo u vremenu treće tehnološke revolucije, ili tehnokratske revolucije, kako kraj drugog milenijuma označavaju neki teoretičari. Uvažavanje ove činjenice nalaže stalno razmatranje međusobnog odnosa društva i tehnike, ovo tim pre što moderno doba pokazuje brojne aspekte međuzavisnosti društva i tehnike. Pošto je u radu reč o jednom sažetom izlaganju veoma kompleksnog fenomena izbor je usmeren na razmatranje razvoja tehnike u zavisnosti od društvenog razvoja, kao i položaja čoveka u zavisnosti od razvijenosti tehnike i stepena razvoja društva.

Ključne reči: *društvo, tehnika, pogled na svet*