

CULTUROLOGY

TECHNOLOGIES OF FORMATION OF "INTELLECTUAL CULTURE" OF THE BEGINNING OF THE XXI CENTURY

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Abstract

The article analyses the dynamics of technologies and their application in the life activity of modern man. The scientific approaches of research and the relationship between the concepts of "culture", "technology" and "technology" are substantiated. The author introduces a relatively new concept of the early XXI century "intellectual culture", comparing its relationship with the concept of "universal design" - an intellectual environment that involves the design of necessary adaptive products for the life activity and culture of modern man

Keywords: culture, technique, technology, algorithm, social technology, intellectual culture, universal design.

Introduction. In the cultural sphere, engineering and technology are involved in the all-round transformative activity of human beings. Their rapid development was accompanied by the emergence of technical sciences, which became a link between natural sciences, engineering knowledge and production. Technologies of the XXI century as a set of technical software tools and methods are an important part of modern culture. The dynamics of technological transformation now outstrips the pace of scientific research and development. Technologies are recognised to become the basis of cardinal transformation of the quality and level of human life, formation of intellectual culture of the society, all its structures and relations, each country and the whole world community.

Main part. There are different approaches to defining and analysing the nature and essence of culture. Some, for example, refer to culture as a certain community characterised by a special set of norms, values and meanings (ethnos, nation, civilisation). Others consider culture as a special form of activity, inseparable from creativity, thinking, art, etc. For others, culture is a general system of values, moral norms and representatives of a particular class, estate or professional group (youth, professional subculture), national aggregations of people, etc. There are other interpretations of the concept of "culture" in scientific literature. In social life, culture acts as a means of transformation of the world, communication, cognition, management, evaluation of the system of values. In addition, the most important function of culture is historical continuity, i.e. the transmission of social heredity from generation to generation. The laws of development and functioning of culture, its structure, functions, dynamics, history and theory, interrelations and interactions with other spheres of material and spiritual life are studied by culturology [12, p. 23].

So, we will proceed from the fact that culture (from Latin *cultura* - cultivation, upbringing, education, development, veneration) is a system of historically developing suprabiological programmes of human life ac-

tivity (activity, behaviour and communication), providing reproduction and change of social life in all its main manifestations.

Programmes of activity, behaviour and communication are reflected in a variety of knowledge, norms, skills, ideals, patterns of activity and behaviour, ideas, hypotheses, beliefs, goals, value orientations, etc. In their totality and dynamics, they form historically accumulated social experience. Culture also generates new programmes of activity, behaviour and communication, which, being implemented in appropriate types and forms of human activity, generate real changes in the life of society [14, p. 658].

Culture is characterised by integrative, polysystemic ways of activity, free, open and search forms, which are based on meaningful self-learning, causal links of interaction, complex communicative and integrative relations, mediated by specific personal experience and the nature of interactions [12, p. 23]. Therefore, all cultures that develop as historical formations build up civilisational potential (technologies, scientific discoveries, optimisation of life activities, etc.). Therefore, civilisationality as a constantly updated technological potential of human activity is also a part of culture.

N. Berdyaev was one of the first Russian philosophers to foresee the role of technology in transforming the culture of the world. Technology, the philosopher believed, as the most important manifestation of civilisation, invades the natural human life, leads to the loss of its connection with the rhythm of nature. And the path of peoples to civilisation is inevitable. The author in anticipation of the scientific and technological revolution of the XX century foresaw the invasion of the machine in the human world ("Spirit and Machine" 1915). N. Berdyaev does not deny the role of technology, on the contrary, he believes that culture is impossible without technology, as its very emergence is due to technology. At the same time, the final victory of technology, the world's entry into the technical era leads to the death of culture [11, p. 249-250].

The traditional and technogenic way of development are radically different from each other. The technological paradigm of civilisation (the theory of post-industrial society) is formed in the 60-80s. XX century in the works of D. Bell [1; 2], E. Castells [7; 8; 9], P. Bourdieu [6], A. Toffler [15; 16], Z. Brzezinski [3; 4], Yo. Masud [19], A. Touraine [17] and other scientists who study the development of world civilisation, forecast opportunities and threats to humanity.

The concept of "technology" (from Greek "τεχνική" - art, skill, craft, science) implies a set of means of human activity, created to carry out the processes of production, as well as to serve the non-productive needs of society. The knowledge and experience accumulated by mankind during the evolution of social production and scientific research based on the use of technical sciences (engineering sciences), which describe and study the regularities of the "second nature", i.e. the technical world, are materialised in technology. The objects of study of engineering are not only material, existing objects, but also objects of not yet existing engineering, which need to be created. Therefore, the main methods of technical sciences are modelling and design [5, p. 106-107].

Also, 'technology' is an elusive concept, it relates to both material objects (machines, equipment, etc.) and broader themes - systems, methods, organisations. Technology is a constantly evolving body of knowledge that ultimately transforms communities and transforms itself. Technologies transform the surrounding reality, the nature of things and culture as a whole [13, p. 24].

In the current literature, the development of artificial evolution is considered on the basis of three main paradigms:

- the first, the conservative scientific community advocates the preservation of the biological without nanotechnological interventions in the natural mechanisms of nature;
- the second one is based on the possibility of artificial completion of "biological man" with the help of technical devices;
- third - development of socio-technological and cultural evolution on the basis of technoscientific programmes (nano-, bio-, information, neuro-technologies, etc.) with their introduction into both bodily and mental essence of a human being - creation of "posthuman", "transhuman", "avatar", etc.

The period of mobile technologies, which has been observed since the early 2000s, expands the possibilities of contactless technologies with a wide range of functions.

Since 2008, blockchain technologies appear as decentralised systems characterised by openness and accessibility, but requiring from users high-level analytical knowledge of IT-technologies, finance (types of crypto), information security, economics and others.

Since 2010 comes the period of artificial intelligence and machine learning, in which technology is capable of performing complex tasks and making autonomous decisions. Technology is becoming more automatic, gradually eliminating humans from social

processes and moving to the post-social stage of evolution of controlled systems.

The process of displacement of organic elements by inorganic (artificial) technical elements continues. Since the 2020s, meta-spaces have been developing, providing decentralisation and syncretism of virtual objects with real ones.

Also, within the framework of human activity, social technologies are implemented through algorithmisation, breakdown into separate procedures, operations and techniques. Social technologies permeate all human cultural activities: art, science, education, production, etc.

Researcher V. N. Makarevich believes that an algorithm as an obligatory element of social technology "is a predetermined sequence of steps. But social technology uses developed algorithms - methods, social systems developed with certain goals" [10, p. 99].

If we consider the concept of "social technology" from the point of view of cultural activity, it can be defined as "an element of human culture, which is formed in culture evolutionarily or is built according to its laws as an artificial formation. Artificial education is connected in a unified system of methods, techniques, methods, means of influence on human activity" [10, p. 99] [10, c. 99].

That is, social technology involves the use of advanced intellectual systems based on artificial intelligence (hereinafter - AI). AI technologies are actively used in everyday human life activities, forming the culture of everyday life and belonging on the basis of intellectual environment.

Intellectual culture should be understood as an *evolutionary component of heterogeneous technologies embedded in the material and spiritual structures of society in order to analyses, control and manage its resource processes.*

Certainly, in intellectual culture it is important to take into account the use of technologies that can adjust to the physical, sensory and cognitive abilities of an individual person - to preserve and improve health, to ease living or professional conditions, to replace him in hazardous types of labour, to form an information database for his interests and needs, to improve his social adaptation and inclusion (for people with disabilities).

Technologies of intellectual culture should be aimed at the creation of "universal design" [18] - intellectual environment that implies the design of adaptive products convenient and accessible to everyone regardless of their age, ability and status [18] - intellectual environment, which implies the design of adaptive products convenient and accessible to each person regardless of his age, abilities and status. The priority areas that should always be available to each person in the universal design of intellectual environment are food availability, safety and comfortable living conditions, analyzing the level of well-being and health, stress management, counteracting loneliness.

Conclusion. In the second half of the XX century there was a complete merger of science and technology, in scientific literature appeared the term - technoscience. If during the XX century science was the main

source of development, the period of the end and beginning of the XXI century is characterized by the dominance of technologies, which are developing so rapidly that the society does not have time to master and understand their quantity.

"Intellectual culture" is a thoroughly new concept, which includes the use of heterogeneous technologies embedded in the material and spiritual structures of society in order to analyse, control and manage its resource processes.

Modern science, engineering and technology have opened up the possibility not only to "conquer" and transform the surrounding culture, but also to invade the nature of man himself, his biosystem. In this regard, there is a need for a holistic constructive-critical understanding of the theory and practice of development and use of the achievements of scientific and technological revolutions in order to develop new worldview and methodological imperatives of the civilization process and sociodynamics of culture in the conditions of technogenic civilization.

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