The Philosophical Analysis of Information and Digital Technologies as Factors of Transformation of Social Reality

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Abstract

The article contains a philosophical analysis of digital civilization, shows the differences between the information society and the digital society. The historical and philosophical reconstruction of the evolution of ideas about the phenomena "number", "digit", in the context of Western and Eastern philosophy is carried out. The characteristics of digital society, digital economy, clip thinking are given and the thesis is substantiated that the influence of digital technology on a person, style of thinking and lifestyle is ambivalent.

Keywords: *Digital Civilization; Digit, Civilization; Human Activity; Digital Economy; Generation Z; Risk Factor; "Clip Thinking"*

Introduction

The technological progress of the XX–XXI centuries, which led the developed countries of the West and East to a new quality of life, is based on the application of scientific achievements. Science transforms not only the sphere of production, but also influences all other spheres of human activity. The planetary scale of the ongoing processes, the wider use of scientific knowledge and high–tech technologies have become the main distinguishing features of modern society. The cultural matrix of technogenic civilization is laid in the Renaissance era, which begins its own development in the XVII century. It goes through three stages: a) pre–industrial, b) industrial, c) post–industrial, electronic and informational. Today, digital technologies have rapidly burst into our lives. Digital civilization is a new kind of technogenic civilization [7, – p. 205]. The difference of the new stage is that the speciality of the information society was the changed role of information both in the sphere of material activity and in the field of human relations, spiritual life. For a digital society, the key characteristic is not the information itself, but the electronic–digital way of storing and distributing it, the electronic–digital mediation of any social relations [1, – p. 74]. Of course, the structure of society is changing a lot in the era of digital development, the massive transition to the "digital", considered as a carrier of information.

The figure can be called a kind of growth point of various types of digital reality. The means of

communication are also being modified. For this reason, words that previously had a specialized application become familiar: "algorithm", "Internet", "reboot", "social networks". It should also be noted that new words are involved in the everyday dialog and communication space: mobile phone, smiley face, cyborg, user, computer, soap (e–mail), etc. The analysis of the modified means of everyday language helps to trace changes in the thinking, lifestyle and needs of the subject of digital reality [5, – p. 31–32].

Information and digital technologies are factors of transformation of society. The prerequisites for the formation of ideas about number and digit are reflected in the history of philosophical thought. A number is considered as a concept expressing quantitative parameters of something, and a digit serves as a sign–symbol for denoting numbers. Pythagoras stated: "Everything is chis–lo". A number, numerical relations are the substance of the universe, and with the help of a number, you can express all the diversity of the surrounding world.

An outstanding mathematician, philosopher who lived in the IX century of Central Asia, Muhammad ibn Musa al–Khorezmi stated: "When I considered what people need when counting, I found that all this is a number. I found that all numbers are made up of units and units are part of all numbers..." [13]. Al–Khorezmi's merit lies in the fact that he began to consider zero as a digit "without proof", discovered an algorithm, a general way of solving mathematical equations. In modern science and philosophy, the algorithm has acquired the status of a universal methodological tool.

The scientific foundation of information technology is the theorem of the elementary probability theory of T. Bayes. G.V.F. Hegel offered his vision and understanding of the phenomenon of "number". In his opinion, "a number is an insensitive object, and occupation with it and its combinations is an insensitive occupation...therefore, a mechanical occupation, it turned out to be possible to invent machines that perfectly perform arithmetic operations" [4, – p. 292]. G.V. Leibniz dreamed of "counting everything". He is the author not only of monadology, but also of the theory of universal binary numeracy, which can be considered as the basis of digitalization [2, – p. 153]. M. Heidegger's assumptions about the need for digitalization became a reality of the XX–XXI centuries. He concluded that "... a game with numbers ... are all giant planning, through which a historiographical animal will finally settle on the globe" [14, – p. 233]. The realities of the 21st century indicate that spiritual (ideal) existence has acquired non–standard characteristics. In particular, the practical, material significance of the ideas put forward by the brilliant thinkers of antiquity (number, digit, energy, atom, gene, laser, etc.) has increased, that is, the instrumental function has declared itself in full force.

Information and digital technologies are factors of transformation of society. The most important basis for the life of the digital community is the development of information and digital technologies, the generation of new scientific knowledge and their introduction into technical and technological processes. The transformation of information technologies has led to the formation of a digital society, a digital economy, and a "digital personality". The modern stage of digital transformation is determined by such types of technologies as: cloud computing; big data; the Internet of Things; artificial intelligence [3, – p. 62]. In the future, man will create and humanity will live in a super–intelligent society. Social reality will be complemented by such characteristics as: smart society (smart, intelligent), smart education, smart citizen, smart elite, smart wars, smart security, and others. [3, – p. 63]. There is a type of development that is based on the accelerating change of the natural environment, the objective world in which a person lives. Changing this world leads to active transformations of social ties, forms of communication of people, personality types and lifestyle. "The Internet of Things is not just a smart home, a smart city, but a fundamentally different anthropological space [16, – p. 5–15]. In this situation, technological determinism, as the fundamental cause of changes in social reality, is not applicable, since a living person with his emotions, irrational thinking and spiritual sphere falls out of it. However, it is much more important now to evaluate the humanitarian component of the network and the figures, its value and semantic foundations. To create a safe environment of existence within the framework of a post–digital

society, smart education should increase attention to the development of the individual–the intellect and the cognitive–emotional spheres of his spiritual being.

In the software and technology part of the "digital" world, the architectural evolution of information and communication technologies and the Internet is constantly and endlessly going on [12, – p. 13]. Digital society manifests itself through such signs as: orientation to knowledge, functioning of cognitive society; digital representation of objects; virtualization of all spheres of human activity; innovative nature of development; integration and globalization; convergence and dynamism; widespread and the diverse use of the Internet, gadgets, etc. [11]. "Digital transformation" is not only an economy, but a global phenomenon that affects the life of society, including philosophical problems. The emergence of the digital economy is usually associated with the widespread introduction of electronic digital machines, personal computers, tablets, cell phones, etc. However, this phenomenon has its own long history. As history shows, the genesis of the "digital economy" began with the appearance of the first system of telecommunication–the optical telegraph [15, – p. 46]. The digital economy is based on a "digital platform", which is a virtual communication platform that provides an algorithmic system of interaction between participants in economic activity within a single information environment. The world community is fully aware of the need to integrate into the digital environment, which generates such innovative phenomena in the social space as digital society, digital culture, digital consciousness, digitalization of the economy, "digital personality", "digital ethics", virtual reality, artificial intelligence, hybrid space Modern man exists in a hybrid world, which is characterized by the interpenetration of the virtual and real worlds. They do not exist in parallel, but complement and mutually condition each other [3, – p. 63]. A person included in the virtual space actually faces a new information and digital existence. Researchers M.Y. Zakharov, I.E. Starovoitov, A.V. Shishkova believe that "the new world of numbers is becoming an integral part of the everyday world of man and society, which in turn requires special digital literacy ... Digital literacy is always a critical digital understanding of the surrounding world, careful use of numbers in any kind of activity, accurate calculation of risks of digitalization, construction of long–term scenarios of technological development, availability of a set of skills for the extraction, professional processing and analysis of digital information" [8, – p. 202].

The prerequisites for digitalization at the state level include: the globalization of the economy, erasing the boundaries of national economies; the functioning of existing and the creation of new economic zones and a single economic space; deep integration into the life of social networks; the emergence of digital startups with which "traditional" enterprises have to compete; understanding the need for digital transformation as a condition for survival in the CIF–the open space of a technogenic civilization. Judging by the results of scientific forecasts, it is globalization, informatization, digitalization that makes it possible to form that new technological way of society, which has radically changed the habitual way of life of the entire population of the planet.

In the era of digitization, the uncertain nature of human activity occurs. In the digital civilization, the role of man is significantly increasing. In the digital civilization, the role of man is significantly increasing. But this role is ambivalent: a person is the main resource and driving factor in the development of an electronic and digital society; it is a person who is one of the main risk factors on the path of this development. The increasing role of a person in a digital society is objectively conditioned. The main object of work in this society is scientific knowledge, information and numbers. As a result of digital socialization, generation (z) has appeared in the modern world, whose communication programs are set primarily by social networks, Skype, Imo, the Internet, smartphones and other electronic means of communication [6, – p. 125]. This is the generation that will replace the generations: baby boomer, X, y. As a result, there are more and more young people with peripheral thinking, deprived of the essential, semantic perception of reality. Accordingly, developing and adapting to new technologies, the brain loses basic social skills, their extinction occurs, social behavior worsens.

Digitalization brings with it not only well–being, comfort, but also certain risks. Digital socialization can lead to escapism (escape from reality), autism, virtual addiction, "digital dementia", cretinism, the formation of clip thinking, a crisis of rationality, narcissism. "The involvement of thinking and consciousness in the technosphere and global communications is fraught with the threat of simplifying language and robotization of consciousness. In the age of high technology, the benefits of civilization are associated with the loss of natural intelligence" [17, – p. 10], which is actively being replaced by artificial intelligence. Digital technologies imply enormous rates of development, profound changes in all spheres of human activity. In the conditions of a super–technological society, ensuring the personal safety of a person comes first. ICTs complicate technology and stupefy people, as the brain loses its ability to long–term memory due to the expansion of the use of operational memory. This allows you to work in a multitasking environment, but destroys the ability to concentrate attention and deep system analysis. Various spheres of social existence are at risk: dehumanization of education and, as a consequence, spiritual and moral degradation of society; "digital dementia"; threats to health; "digital identity", "digital optimism", cybercrime, etc. [2, – p. 152]. Accordingly, problems related to ensuring the humanitarian security of the individual and society should come to the fore. The development of global social networks, electronic and digital communications, create wide opportunities for manipulation of public consciousness. The actual problems of the digital world can be considered the loss of individual freedom, the emergence of "clip thinking". A subject with such thinking perceives the world not holistically, but as a series of almost unrelated facts and events. How to ensure the security of the individual in the society of knowledge? A special mission in this situation is assigned to the education system. For these purposes, it is necessary for the spiritual development of the individual, special attention should be paid to: a broad understanding of beauty; an understanding of the value of thought; in–depth understanding of social agreement, communication, cooperation; formation of creative and critical thinking; deep awareness of social responsibility.

The digital world has contributed to the fact that people's whole lives have become open to receive information about each person. This trend in the development of society originates from the moment of the introduction of information and computer technologies that contributed to the transformation of the world into a "global village". A whole new direction of "fintech" has emerged. On the one hand, it is a specialization based on the use of technologies and innovations that enhance the competitive capabilities of the firm, corporation. On the other hand, "fintech is a story about the flow of data about our lives and about who will get more information about this flow". In the long run, this phenomenon will lead to a possible loss of individual freedom as such, rather than its acquisition and strengthening [17, – p. 16]. Another problem of the information–digital world can be considered the phenomenon of "clip thinking", which has become a response to the increased quantity of information. The owner of clip thinking finds it difficult, and sometimes is not able to analyze any situation, because he receives information by pulses, without focusing on ideas, perceives the world not holistically, but as a series of almost unrelated facts, events.

Conclusion

Digitalization is a phenomenon not only technological, but also economic, political, as well as humanitarian, axiological and socio–cultural order. Modern man–made civilization has put man and humanity in a dilemma: either the formation of a society of knowledge and freedom of spirit, or a consumer society and final enslavement through a "figure". Today, modern technologies have already enslaved people in many ways, opening up the prospect of unlimited consumption, comfort and entertainment, on the one hand, and total control over people, managing them, on the other. It is the duty of philosophy in this situation to contribute in every possible way to the preservation of human dignity, clarity of thought, optimistic outlook, determination to overcome crisis phenomena, contradictions generated by the introduction of digital technologies.

References

1. Belyaeva E.V. Digital society and the possibilities of its ethical regulation / E.V. Belyaeva // Zh. "Vedomosti of applied Ethics". – 2018. – No.52. – p. 74–82.

2. Valeeva G.V. Socio–philosophical foundations of digitalization of higher education in the context of the formation and development of a digital society // Context and reflection: philosophy about the world and man. 2023, Volume 12. No. 1 A. – p. 151–157.

3. Vasilenko L.A., Meshcheryakova N.N. Sociology of digital society. – Tomsk, 2021. – p. 226

4. Hegel G.V.F. Science of Logic. In three volumes. – M.: Thought, 1970. Volume I. – p. 501.

5. Gerasimova I.A. Engineering knowledge in technogenic civilization / I.A. Gerasimova // Epistemology and philosophy of science. – 2018. – Vol. 55 – No. 2. – p. 6–15.

6. Danilov A.N. Student of digital technologies: Semantic invariants of spiritual practices / A.N. Danilov, Zh.M. Grishchenko, T.V. Shchelkova // Journal of the Belarusian State University. Sociology. – 2018. – No.1. – p. 125–134.

7. Dozhdikov R.N. Everyday cognition and digital socialization. Intellectual culture of Belarus: methodological capital of philosophy and contours of transdisciplinary synthesis of knowledge. Volume 1 / R.N. Dozhdikov. – Minsk: publishing house "Four Quarters", 2018. – p. 204–207.

8. Zakharov M.Yu., Starovoitova I.E., Shishkova A.V. Digital culture historical stage of development of information culture of society // Bulletin of the University. Social Technologies and Processes, 2020, No 5. – p. 200–205.

9. Mironov V.V. Longing for true being in digital culture / V.V. Mironov, Z.A. Sokuler // Vestn. Moscow. un–ta. Series 7. Philosophy. – 2018. – No.1 – p. 3–22.

10. Prangishvili I.V. Entropy and other system patterns: Issues of management of complex systems // Personal website of O.G. Apolov / I.V. Prangishvili. – Access mode: http://apolov-oleg.narod.ru/olderfiles/1/Prangishvili_I.V_JEntropiinye_i_dr-88665.pdf [archived in WaybackMachinel (accessed: 02/15/2018).

11. Robachevsky A. The Internet from within: the ecosystem of the global network / A. Robachevsky. – M.: Alpina Publisher, 2017. – p. 271.

12. Semenyuta N.F. From the telegraph to the Internet–the history of the formation of digital telecommunications (philosophical aspect) / N.F. Semenyuta. – M.: Hotline–Telecom, 2017. – p. 227.

13. Al-Khorezmi. A short book about the calculus of algebra and almukabala //Mathematical treatises/ Ed. by S.H.Sirazhdinov, - Tashkent, 1983.

14. Heidegger M. Reflections VII–XI (Black Notebooks 1938–1939). – Moscow, 2018. – p. 528.

15. Chekletsov V.V. The feeling of the planet: The Internet of Things and the next technological revolution / V.V. Chekletsov. – M.: Russian Research. Center for the Internet of Things, 2013. – p. 130.

16. Chernyshov A.G. Digitalization and technologization of public life as a socio–political problem: preservation of identity and the role of the state in the development of global networks. / A.G. Chernyshov // Bulletin of Tomsk State University. Philosophy. Sociology. Political science. – 2017. – No 40. – p. 319–325.

17. Chernyshov A.G. Strategy and philosophy of digitalization / A.G. Chernyshov // Power. – 2018. – No. 5 – p. 13–20.

18. Mamadjonova M.Q. The Role of Synergetic Ideas in Improving The Scientific Creative Progress // European Journal of Humanities and Educational Advancements (EJHEA). 2023. Vol. 4, No. 9. p. 41–43.