UDC 101.83

Virtual Reality of the Information Society

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Abstract

The end of XX — beginning of XXI century marks a steady increase in the use of information technology, which is accompanied by the virtualization of human activity. The basis of modern society, as M. Castells notes [7], is constituted by "network structures". It is through networks that new forms of various social institutions, structures, and communities are becoming established. Currently, studies of the features of such transformations in the process of mastering and implementing electronic virtual reality technologies, provoking various social challenges, are of particular relevance. One of the acute problems of our time is the contradiction between the process of globalization of the world and the desire for the identity of local cultures. The reduction of a priori identity leads to the accumulation of potential for the formation of a global network state, uniting citizens of a new social formation.

Key words: information society, virtual reality, transformation, globalization, identity.

Introduction. The genesis of electronic socialization has affected such areas of public life as economics, politics, education, etc. Moreover, the transition to virtual space takes place not only at the level of network technologies, but also within the framework of non-computer virtualization of social institutions.

Political power is increasingly acquiring the status of an image

institution, supported by ratings, image makers, press secretaries and other attributes of modern political life.

The economic market is saturated with images of goods sold through advertising, and the economic process, that is, the production of value, is transferred from assembly lines to an advertising agency.

Modern virtualization processes are so fast that it is difficult to predict, and meanwhile, the subject field of socio-philosophical research of this problem is only just beginning to take shape. Therefore, there is a need to develop a methodology for the study of virtual reality in the aspect of socio-philosophical, socio-psychological, sociological and other problems, as well as to justify the concept of virtual reality as a socio-philosophical phenomenon.

To predict the dynamics of virtualization, it is necessary to identify the mechanisms of production of virtual reality, its existential nature, determine the forms of expression of these processes, the stages of their institutionalization.

The advent of the era of electronic civilization was predicted by such researchers as E. Toffler, J. K. Galbraith, P. Drucker, D. Bell and others. Meanwhile, global conclusions were not immediately drawn, for example, D. Bell in his classic In his work "The Coming Postindustrial Society" [3] he considered electronic computer technology only as one of the high-tech industries and as a necessary means of solving complex problems using a system analysis of game theory.

E. Toffler in his work "The Third Wave" identifies the socio-economic trends that accompany the development of information technology; in particular, he predicts an increase in the interactivity of the media through the introduction of new network tools of computer technology [16].

A new stage in the study of the socio-philosophical aspect of electronic society is the work of M. Castells. Highlighting information as a resource that is easiest to penetrate across the boundaries of time and space, M. Castells shows the role of network structures in the modern information society [7].

Thus, "the power of the structure is stronger than the power structure", and belonging to a particular network, along with the dynamics of the

development of some networks in relation to others, acts, according to Castells, as the most important source of power.

With the concept of M. Castells, the conclusions of many scientists studying the processes of globalization in the context of the virtualization of society are consonant.

Research is also underway in the field of non-computer virtualization. In domestic literature, this area is represented by the works of the Center for Virtual Studies of the Institute of Man of the Russian Academy of Sciences, which deal with such aspects as the psychology of virtual reality, the virtuality of creativity, etc. The "Virtualistic Manifesto"is presented, proclaiming it as one of the new worldview systems, which is based on the thesis that "the world is virtual."The manifest also defines the basic properties of virtual reality: generation, relevance, autonomy, interactivity.

One of the most comprehensive studies in the domestic literature on virtualization is a monograph by D.V. Ivanov's "Virtualization of society" [6], in which the logic of virtual reality is presented as a substitution of real things and actions with images — simulations. The author identifies three main characteristics of virtual reality:

- Non-material impact (the image produces effects characteristic of the material);
- Conditionality of parameters (objects are artificial and mutable);
- Ephemerality (freedom of entry / exit provides the possibility of interruption and resumption of existence).

To develop the concept of virtualization, the author proposes the formulation and solution of the following tasks. Firstly, in order to have a reason to use the "real / virtual" dichotomy, it is necessary to trace the genesis of social reality.

Therefore, the proposed concept of virtualization of society opens with an analysis of the emergence of the phenomenon of social reality during the modernization of society and the paradoxical transformation of social reality in the context of a sociocultural shift from Modern to Postmodern.

Secondly, in order to build a model of social changes as a shift from

"real"to "virtual a generalization of various empirical trends is necessary.

The solution to this problem is found in the sociological core of the proposed concept, which is a series of descriptions of the processes observed in various institutional areas of society at the turn of the XX-XXI centuries. and showing virtualization as a single principle — an example of social change. Thirdly, in order to determine the theoretical status of the concept of virtualization, it is necessary to compare it with the models of society transformation used in modern social knowledge.

Thus, the ontological nature of virtual reality and virtualization mechanisms goes through the stage of comprehension in the modern scientific world. The main field of research is electronic virtual reality, and researchers today note a new vector of transformation of society — its "virtualization meaning by virtualization the transition of the main activities into the virtual space of the Internet.

We can distinguish the following socio-philosophical aspects of the electronic environment that modern researchers turn to:

- The transformation of social institutions in the development of the information society;
- The development of online communities, their interaction between themselves and traditional communities;
- The impact of the development of the Internet on changing social communication systems;
- The transformation of modern education, the development of distance education;
- The problem of maintaining cultural identity;
- The formation of the "electronic economy";
- The formation of "electronic government etc.

When studying the phenomenon of virtual reality and the mechanism of its appearance, it is fundamentally important to refer to sources exploring reality as such. The most comprehensive study on this topic, in our opinion, is the work of P. Berger and T. Luckman “The Social Construction of Reality” [5], in which a phenomenological approach to the problem is developed. The

main key points of the research of P. Berger and T. Luckman in this case are: “the reality of everyday life”, “social interaction in everyday life”, “language and knowledge in everyday life”, “institutionalization” and “legitimation”.

In the generally accepted sense, the concept of "virtual"is often used in the meaning of "fictitious "nonexistent in reality."However, in the scientific discourse, “virtuality” is beginning to be perceived as a form of reality. “The virtual reality that is talked about so much these days is not a different reality where we go from time to time; this is the reality in which we live. Virtual reality is a continuation of real reality ”[5].

In different languages, the meaning of the word "virtual"varies, for example:

— Lat. virtualis — potential, possible;
— English virtual — actual, not nominal, valid;
— fr.virtuel — possible, potential.

In the study of virtual reality, it is necessary to abandon monoontic thinking and adopt a polyionic paradigm in which a hierarchy of realities is possible, including those that manifest themselves under certain conditions, that is, virtual ones.

The term “simulacrum,” which is often used to refer to virtual reality artifacts, should be avoided. By definition, “simulacrum — (French — stereotype, pseudo-thing, empty form) — is one of the key concepts of postmodern aesthetics, occupying a place in it, belonging to the artistic image in classical aesthetic systems.

The use of the phenomenological approach and the methods of content analysis of humanitarian texts that identify key precedents of virtual reality in the aspect of social and philosophical interaction allow us to identify and explain the nature of the appearance of such processes.

— Electronic reality, designed by multimedia technology, is not the only form of virtual reality, its manifestations entered the human culture long before the advent of the computer.
— The accumulated in the culture of many manifestations of virtual reality allows typology, the criterion of which is the sequence of

occurrence of producers of virtual reality in time.

- The language of electronic virtual reality is built on visualization effects, and its main attributes are interpretative forms of semantic constructions that arose in the pre-computer era.
- Forms of electronic virtual communication are similar to forms of pre-computer virtual communication with the only difference being that electronic virtual communication is more accessible and can be carried out interactively.
- The processes of virtualization affect all spheres of human activity, developing the virtualization intentions inherent in the pre-computer era.

Virtualization mechanisms are currently an integral part of modern sociocultural, political and economic processes. Consideration of issues related to virtualization mechanisms is of great practical importance. The results obtained, for example, can be used:

- For research into the phenomenon of virtual reality, including the Internet;
- when developing approaches and teaching methods using the electronic environment both in the disciplines of the socio-humanitarian cycle and in the field of information technology, including the problems of virtual reality;
- In the development of training courses on virtual reality;
- In the study of interpersonal communication problems in an electronic virtual environment, in particular in distant learning.

Modeling a "virtual world" in the real world. In the process of computerization, penetration of the Internet, a new kind of reality appears — "virtual reality", an artificial pseudo-medium. This new technological environment has a powerful (yet completely unpredictable) effect on the human psyche. To analyze virtual reality, you need to start by looking at social reality and compare the two concepts of "social reality" and "virtual reality".

In the work of sociologists, when considering social reality, the state of

public consciousness and its components are analyzed — knowledge, ideas, motives, values, attitudes, activities and actions of people.

P.A. Sorokin said that living consciousness and behavior are the richest social processes in their manifestations. It is they who act as a sensitive indicator of the state, the course of development and functioning of social processes, of all social life.

The paradigm of social fact, coming from O. Comte and E. Durkheim, considers social reality as two groups of social facts: social structures and social institutions, focusing on the nature of their interaction.

E. Durkheim believed that social facts are distinguished by specific properties, they are constituted by patterns of thoughts, actions and feelings that can exist outside the individual and endowed with coercive force, as a result of which a person is forced to appropriate them.

Z. Freud and his followers — the supporters of the paradigm of social behavior, consider the concept of social fact metaphysical, since it ignores human behavior, which, in their opinion, is the only social reality. Numerous concepts of nature and the essence of social reality are polarized within two scientific trends: realism and nominalism.

Representatives of the first are confident that society as a whole and individual social institutions act as an independent reality, not reducible to the interaction of individual individuals.

Representatives of the second direction believe that neither society nor social institutions have an independent social reality; they argue that only certain individuals possess such reality.

In our opinion, it is necessary to agree with this theory, since people are ultimately carriers of a certain role-based behavior, and social groups — the family, professional groups, etc. — a way of organizing joint life activities of people.

Social reality is created in the process of social interaction of subjects, is the result of their consciousness and life in a certain limited territorial and temporary (historical) space.

It can be fixed in the behavior of people, in the nature of their value

orientations, in the forms of organization of life, in role-based behavior.

Consequently, social reality has both subjective (evaluative) and objective, materialized indicators — the division of social labor, national and demographic communities, etc. Modeling a "virtual world" in the real world

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Since the levels of interaction can be different, then, consequently, the levels of social reality and social life will be blurred. We can talk about the social world of a person, group, society, world community, etc.

Social reality (social world) is created in the process of social interactions of subjects, is the result of their life [11].

An important property of the Internet environment is that when individuals and social groups communicate with a hyper environment, the latter allows the latter to realize its inherent properties of "virtual reality". The first attempts to create sociological models of modernity on the basis of the concept of virtuality were almost simultaneously undertaken by A. Buhl, M. Paetau, A. Crocker and M. Weinstein.

The author of the theory of "virtual society" A. Buhl notes that with the development of virtual reality technologies, computers from computing machines have turned into universal machines for the production of "mirror" worlds.

The authors of the "virtual class" theory A. Crocker and M. Weinstein called virtualization a new type of alienation of a person from his own flesh

in the process of using computers and turning it into streams of electronic information (feeding virtual capital.

M. Paetau's model of "virtualization of social" is based on the theory of N. Luman, in which society is defined as a communication system. M. Paetau interprets the emergence of the hyperspace of the Internet as a result of the "use" by society of new forms of communication, computer communication contributes to the production of sociality, a change in society is seen as a structural differentiation of the system due to the emergence of new elements in it in the form of virtual analogues of real communications.

The theorists of "virtual reality"become the followers of technological determinism, the creators of the theories of the "information society". Virtualization is considered either as a technological process with social consequences, or as a social process, but mediated by computers and without computers is not feasible.

For example, in A. Bul, virtualization is the technical process of creating a virtual society as existing in parallel with the real. In virtual reality, the behavior of the depicted object reproduces the spatio-temporal characteristics of the behavior of a material object.

The following characteristics can be singled out as universal properties of virtual reality [12]:

- Non-material impact (the image produces effects characteristic of the material);
- Conditionality of parameters (objects are artificial and mutable);
- Ephemerality (freedom of entry / exit provides the possibility of interruption and resumption of existence).

We can talk about virtualization in relation to society insofar as society becomes like virtual reality, i.e. can be described using the same characteristics. Virtualization in this case is any substitution of reality for its simulation / image, not necessarily with the help of computer technology, but certainly with the use of virtual reality logic.

For example, the virtual economy can also be called the one in which business operations are conducted primarily through the Internet, the virtual

policy is the struggle for power and through campaigning through web pages or press conferences on the Internet.

A general idea of the phenomenon of replacing reality with images allows us to develop a sociological approach proper: it is not the computerization of life that virtualizes society, but the virtualization of society that computerizes life. Since the levels of interaction can be different, then, consequently, the levels of social reality and social life will be blurred. We can talk about the social world of a person, group, society, world community, etc.

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Conclusion. In the first decades of the 21st century, artificial science will be at the forefront of world development and a unified theory of open, heterogeneous, developing artificial systems will form, which will include the following main directions:

- The general theory of the organization and management of artificial systems (principles and mechanisms of organization, interaction and cooperation of artificial systems, their regulation and training, logical and situational management, etc.).
- The general theory of the emergence and evolution of artificial systems (patterns of morphogenesis, survival, self-organization, self-preservation, self-reproduction, self-renewal, evolution, adaptation, selection, mutations, etc.).
- The general theory of the design and production of artificial systems (problems of upward and downward design, mixed V-shaped and combined design of the development of direct and reverse life cycles of artificial systems, computer-integrated and network production of artificial systems, simulation modeling of agents in artificial systems, use of tools virtual reality in the development of artificial systems).

The principles of "virtual reality" of the modern information society can be formulated based on the synergetic paradigm:

The principle of non-additivity. Complex systems are formed as a result of cooperative interactions leading to synergistic (non-additive, non-linear, resonant) effects. The efficiency function of the whole is always greater than the sum of the efficiency functions of its parts.

Principle of integrity. In complex systems, the properties of the whole are not reduced to the properties of its constituent parts. On the one hand, the cooperative interaction of elements in a complex system leads to the formation of a new system with previously unknown properties. On the other hand, to determine the properties of parts, it is necessary to know the properties of the whole.

The principle of complementarity N. Bohr. In complex systems, the need arises for combining various, previously seeming incompatible, but now mutually complementary models and description methods.

The principle of spontaneous occurrence I. Prigogine. In complex systems, special critical states are possible when the slightest fluctuations can suddenly lead to the appearance of new structures that are completely different from ordinary ones.

The principle of incompatibility L. Zade. With an increase in the complexity of the system, the possibility of its accurate description decreases up to a certain threshold beyond which the accuracy and relevance of the information becomes incompatible, mutually exclusive characteristics.

The principle of uncertainty management. Complex systems require a shift from managing uncertainties to managing uncertainties. Different types of uncertainty should be deliberately introduced into the model of the system under study, since they serve as a factor conducive to innovation (system mutations).

The principle of ignorance. Knowledge of complex systems is fundamentally incomplete, inaccurate and contradictory: they are usually formed not on the basis of logically strict concepts and judgments, but on the basis of individual opinions and collective ideas. Therefore, modeling of partial knowledge and ignorance plays an important role in such systems.

The principle of plurality of non-factors. When developing complex

systems, it is necessary to take into account the whole gamut of non-factors of knowledge, where along with the usual non-factors (uncertainty, inaccuracy, incompleteness, and underdetermination), synergetic non-factors should be taken into account: non-linearity, instability, nonequilibrium, and openness. Here, non-linearity means a violation of additivity during the development of the system, and instability is associated with non-conservation of proximity of the states of the system during its evolution.

The principle of compliance. The language for describing a complex system should correspond to the nature of the information available about it (level of knowledge or uncertainty). Exact logical-mathematical, syntactic models are not a universal language; non-strict, approximate, semiotic models and informal methods are also important.

The principle of diversity of development paths. The development of a complex system is multivariate and alternative; there is a "spectrum" of its evolutionary paths. The critical critical moment of the uncertainty of the future development of a complex system is associated with the presence of bifurcation zones — the "branching" of the possible paths of evolution of the system.

Arguments about complex systems can be interpreted in various "possible worlds", i.e. complexity involves the union of different (and even opposite) logics. The transition from one logic to another reflects the process of the formation of the system, and the type of specific logic depends on the stage of evolution of the system and the current situation.

The principle of unity and mutual transitions of order and chaos. The evolution of a complex system goes through instability; chaos is not only destructive, but also constructive. The organizational development of complex systems involves a kind of conjunction of order and chaos.

The principle of oscillatory (pulsating) evolution. The process of evolution of a complex system is not progressive.

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