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DOI <https://doi.org/10.24195/spj1561-1264.2023.2.11>**Okorokova Vira Viktorivna**

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SYNERGETICS AS A THEORETICAL AND METHODOLOGICAL APPROACH TO THE STUDY OF THE PROCESSES OF VIRTUALIZATION OF SOCIETY

The relevance of the research topic is expressed by those changes in the models of social organization and interaction in modern society, which occur due to the wide implementation and distribution of virtual technologies in the social system, affecting its ability to self-organize. The purpose of the article is to consider the theoretical and methodological principles of the use of a synergistic scientific approach in the study of the processes of virtualization of society.

In the process of researching the specified problem, the following scientific methods were used: the method of analysis and synthesis (contributed to distinguishing the features of virtual reality technology and its place in the modern social environment), the method of structural and functional analysis (made it possible to consider the virtualization of society as a transformation of the social environment based on the implementation of information technologies from one complex system to another; to note the polyvariance of artificially created worlds, which collectively falls under the characteristics of synergistic principles and stages of system self-organization, the dialectical method (reveals the dynamics of social processes considered within the scope of synergy), which interacts well with synergistic scientific approach

The results of the study show that virtual reality, being a product of constant reality, acts as a complex system that has a number of synergistic features. Expanding the scope of its application motivates changes in social reality, growing into the hyperreality of the virtual world, which creates the basis for simulation (substitution) of social reality. Self-organization in social networks is determined by network structures that form a worldview or opinion, give an opportunity (acting as an attractor) to choose a certain role in the process of network communication or interaction.

Key words: *virtual reality, virtualization of society, synergy, simulacrum, hyperreality.*

Introduction. The growing influence of information and communication technologies in the life of society and man, profound changes in models of social organization and cooperation due to the wide spread of flexible network structures speak not only about certain transformational processes in the social system, but also about its ability to self-organize. L. Rydchenko notes that in the era of information and telecommunication technologies, it is increasingly difficult to find new facts on certain issues, to cope with huge information flows. In this connection, there is a need to perceive information as a system-creating phenomenon. The non-linear dependence of interaction between parts of the system environment is necessarily necessary for the emergence of self-organization in the system. In the non-linear methodology, the systematic analysis of self-organization processes indicates new perspectives in the study of today's problems [13].

We are talking about the synthesis of different models of cognition, which made it possible to formulate some general principles of mathematical modeling of the processes of their development and to reveal the interpenetration of various sciences, which made it necessary to create such models that give an idea of the main trends, make it possible to make a forecast and, accordingly, give recommendations in systems development. Globalization processes, on the one hand, shorten the horizon of predictability on the scales of social processes we are used to, on the other hand, create the possibility of the birth of order parameters and their identification and modeling for mega-processes of national, regional and world dynamics. Synergetics is able to model precisely such complex, transformative processes of society [12, p. 89].

In this perspective, one of the most acute problems is that the development of information technologies today gives rise to a completely autonomous virtual reality of new forms of modern media culture, which develops into a virtual hyperreality. Post-nonclassical science deals with virtual reality, which is considered as a continuation of human subjectivity, as a factor of evolution, that is, as a process of formation in the conditions of the information society of a "new" person who creates his culture of the XXI century as the basis of the virtual world. The latter here itself begins to act as the basis of all other worlds. In this case, O. Onyshchuk's opinion that a new type of person has emerged today, the search for non-traditional forms of self-expression of the individual is underway, the system of values is being transformed with the destruction of traditional forms of culture. One of the defining features of global thinking is the desire to become part of the big world, to go beyond one's own subjective worldview [11, p. 37].

The purpose of the article – consideration of the theoretical and methodological principles of the application of a synergistic scientific approach in the study of issues of the processes of virtualization of society.

Research methods. In the process of researching the specified problem, the following scientific methods were used: analysis and synthesis (contributed to distinguishing the features of virtual reality technology and its place in the modern social environment), structural and functional analysis (made it possible to consider the virtualization of society as a transformation of the social environment based on the introduction of information technologies from one complex system to another, to note the polyvariance of artificially created worlds, which collectively falls under the characteristics of synergistic principles and stages of self-organization of the system).

Presentation of the main material. The social consequence of Internet communication is the formation of the so-called "network culture" aimed at establishing "network individualism as the dominant form of sociality." In fact, a person loses his personality, dissolving it in the virtual space, and is "born" again, inventing a new name for himself, creating a new virtual existence (the legend of his own existence) and establishing communication with other subjects of the network world [6, p. 87].

As a result of the rapid spread of information and knowledge, a new form of identity emerges, which is defined as "mixed", which has no boundaries, becomes unstable and depends on the conditions of communication. It is practically impossible to determine the boundaries of such an identity without two factors – objective (material and technical base, information and computer technologies) and subjective (the creative potential of the individual, which transforms the results of man-made civilization into spiritual and cultural values) [2, p. 89].

Under the influence of informatization and virtualization of intersubjective relations, a person's consciousness changes, he perceives himself in this world in a different way. In particular, the impact of informatization is explained by three interdependent processes that accompany it: mediatization – the process of improving the means of collecting, storing, and disseminating information; computerization – the process of improving information search and processing tools; intellectualization is the process of developing the ability to perceive and generate information, that is, increasing the intellectual potential of society, including the use of artificial intelligence.

Virtual reality is the result of the interaction of the objective and the subjective, it has the status of an accidental being, which is not fixed or rooted completely in the social. Virtual reality is another reality, different from the main one, the boundaries of which are conditional, it is associated with freedom in various forms of its manifestation. In modern ontologies, it acquires a different meaning, as something super-empirical, connected with artificially created technical means. There are various forms of manifestation of virtual reality, but they all come down to a person, therefore it is advisable to consider virtual reality in a broad sense – as an integral part of culture [4, p. 19].

O. Danilyan and O. Dzoban note that the virtualization of the life time of a person and society characterizes a fundamentally new type of symbolic existence of a person, society, and culture. The instantaneous bridging of distance by means of ultra-modern telecommunications and ultra-high-speed vehicles enables organizations and individuals to spend time together without direct spatial convergence, incorporating them into plastic multi-spatial structures that smoothly transition into active

and constantly updated networks of interaction. Time is largely destroyed by instant communication between computers, those levers of social life that were effective a few years ago are no longer effective today. Changes in time limits, the emergence of timeless concepts in the information age are also connected with the latest reproductive technologies of the human body, including through cloning. All these phenomena can be regarded as virtual deformations of the essence of the space-time continuum in the information age, and as radical transformations of its understanding [4, p. 12].

Researchers draw attention to the fact that the main information process connecting reality and cyberspace is the process of changing information through hypertext, a form of information presentation on the Internet. This form assumes the presence of text, images, audio information, hyperlinks designed in a single language, creation of web documents. If earlier, without knowledge, it was impossible to imagine writing such documents, now the availability of a huge number of programs – web editors – has made it easy for any user, not just a professional. Accessibility made it possible to maximally accelerate the rate of growth of the number of personal web-resources, where people are not presented in all their subjectivity, but reduced: as a set of texts produced by themselves (or other people about them), saturated with additional elements. Due to the above, it is wrong to consider cyberspace (and, as a result, the Internet) as an independent phenomenon. It is the product of the work of a colossal number of people, managed and controlled. Moreover, hypertext, like any text, can be considered as an objectified (but indirect) reflection of the interests of the parties involved in the communication process [4, p. 13].

Virtual reality technology, when used in the communications of social subjects, can solve a number of important tasks: virtual reality is an extended form of communication that would connect a person with technology, a person with a person, a person with society, a person with a social subject; virtual reality realizes the most important of communication functions – the cognitive function, this is possible due to the expansion of the spectrum of information perception by a person; virtual reality provides quick and convenient access to various reference materials (catalogs, directories, encyclopedias) in any part of the world with reproduction of the real environment of any library or information storage [3, p. 159].

As a result, a significant number of definitions of virtual reality and the process of virtualization of society appear in modern science. In particular, V. Dupak proposes to understand virtual reality as such a specific type of symbolic reality, which is created on the basis of computer and non-computer technology, and also implements the principles of feedback, which allow a person to act quite effectively in the world of virtual reality. 30. Another Ukrainian scientist H. Sashchuk understands virtual reality as an organized space of simulacra – special objects, "alienated signs", which, unlike signs – copies, record dissimilarity with the reference reality. Virtualization in the strict sense, the researcher continues, can be defined as the process of developing global computer networks, transferring human activity to cyberspace and, ultimately, replacing social reality with a virtual one [14, p. 28].

That is, virtual reality appears as a symbolic culture, saturated with simulacra, which form a new image of social reality. As a result, social reality is replaced by images of reality (simulacra), which become the only factor of similarity to reality. Reality is no longer experienced, but only simulated, covered by simulacra. Simulative hyperreality is a space saturated with many unordered, chaotically structured simulacra that act as particles, images that allow a person to assemble his picture of the world from them. Simulation constructivism now expands the scope of realization of formed models, images. With the help of computer technology, a person can now implement his image of a new social reality in cyberspace, giving it the most whimsical and fantastic features. This is the peculiarity of postmodern simulation itself – the main emphasis is not on the juxtaposition of real / unreal, but on the creation of a new (virtual) reality, where questions of truth are removed by definition [12, p. 242].

The attitude of the individual simulative reality and the system of simulative realities of civilization is probably the main anthropological problem of our time. A person penetrates many spheres of knowledge of reality, he knows physical laws, he learns to fly into space, learn and master

the information space, which is unknown and not limited by territories. Virtual reality is a simulacrum, an illusion that permeates everywhere and changes a person's attitude to reality. At the same time, the value of real life for many regular users decreases to the borderline, when it becomes increasingly difficult to return to normal life [14, p. 26].

Interesting in this context is the opinion of Ya. Lyubiviy, who emphasizes that the Internet is not so much a global technological infrastructure as a self-organized socio-technological system in which actors and groups (Internet communities) are the main actors and in which human knowledge and social subsystem are crucial; technological knowledge regarding the use of the information network constitutes an indispensable condition for communication in the network, makes human communication possible, but thanks to this communication, this or that Internet community produces new emergent knowledge. P. 20. The communicative form of cybersimplicity, including hacktivism and cyberattacks, opens the way to global democracy, stimulating the intensification of critical consciousness and mobilizing activists for protests. The cooperative form of cyber protest initiates the organization of demonstrations, strikes, sit-ins, flash mobs, boycotts, and civil disobedience. The self-organization of the cyber-protest implies that another level of self-organization is built on top of the self-organization of the protest structure – the self-organization of the Internet [10, p. 21].

In essence, the virtualization of society contributes to the formation of a new form of social relations, and this is quite understandable, because synergy corresponds to the problem of postmodern knowledge of social reality, offering modeling of the image of a new social reality based on the self-organization of the social system by overcoming chaos, leaving the point of bifurcation. The very scheme of simple interaction of the main categories of synergy (chaos and order) is very well reflected in the processes of virtualization, which contributes to the transition of society to an increasingly high level of virtual technological capabilities.

The dominance of computer technologies accelerates the processes of exit from bifurcation points, bringing society to another level/stage of social relations. In this case, synergy appears as a means of experimentation, playing with reality. A synergistic approach causes a new dialogue between man and nature. It also leads to a new dialogue of a person with himself and with other people. In this regard, F. Vlasenko notes that the life path of a modern individual is a bifurcation-nonlinear process due to his own activity, the role of chance, etc. In the being of an individual, the present determines the unknown future as an attractor (for example, a dream, an ideal, a project) [2, p. 86-87].

Conclusions. In other words, virtual realities generated by information technologies, acting as synergistic properties of order, are increasingly subordinating life to themselves. The problem is that the process of generating virtual realities can turn out to be a means of collective manipulation of people, a means of turning a person into an object controlled "from the outside". And the most important aspect is that network technologies, teaching information on the Internet radically change the spheres of life. They become much more transparent. Self-organization in social networks is largely determined by network structures – we often focus on the opinions and evaluations of people who are part of our "personal network". It is thanks to this that agreement and general opinion emerge, social roles are chosen and clarified.

Virtual reality itself here acts as a complex system that has a number of synergistic features, among the main ones: a peculiar structure of the intersection of the natural world of man – the virtual world as a new social reality. Virtual reality is a product of constant reality, as it meets the needs of social reality, and vice versa, expanding the scope of its application motivates changes in social reality. This in turn introduces an element of randomness; hierarchy; openness, dynamism, ease of use; has a certain purposefulness (these features are especially clearly expressed in the virtual model, in virtual modeling of social reality).

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СИНЕРГЕТИКА ЯК ТЕОРЕТИЧНИЙ ТА МЕТОДОЛОГІЧНИЙ ПІДХІД ДО ДОСЛІДЖЕНЬ ПРОЦЕСІВ ВІРТУАЛІЗАЦІЇ СУСПІЛЬСТВА

Актуальність теми дослідження виражається тими змінами моделей соціальної організації і взаємодії в сучасному суспільстві, які відбуваються завдяки широкому впровадженню і розповсюдженню віртуальних технологій в соціальній системі, впливаючи на її здатність до самоорганізації. В статті проводиться аналіз віртуалізації суспільства як відображення процесів нелінійності, хаотичності, відкритості, самоорганізації. Метою статті є розгляд теоретико-методологічних засад застосування синергетичного наукового підходу у дослідженні питань процесів віртуалізації суспільства. Для реалізації цієї мети насамперед визначаються у своєму співвідношенні поняття «віртуальна реальність» та «віртуалізація суспільства», що сприяє розкриттю головних рис останнього в умовах медіатизації та комп'ютеризації.

В процесі дослідження зазначеної проблеми було використано наступні наукові методи: метод аналізу і синтезу (сприяли виокремленню особливостей технології віртуальної реальності

та її місце в сучасному соціальному середовищі), метод структурно-функціонального аналізу (дало змогу розглянути віртуалізацію суспільства в якості трансформації соціального середовища на основі впровадження інформаційних технологій від однієї складної системи до іншої, відмітити поліваріантність штучно створених світів, що в купі підпадає під характеристику синергетичних принципів та етапів самоорганізації системи), діалектичний метод (розкриває динаміку соціальних процесів, що розглядаються в межах синергетики), який добре взаємодіє з синергетичним науковим підходом.

Результати дослідження показують, що віртуальна реальність будучи породженням константної реальності виступає як складна система, яка володіє низкою синергетичних ознак. Розширення сфери її застосування мотивує до змін в соціальній реальності, переростаючи у гіперреальність віртуального світу, що створює основи симуляції (заміщення) соціальної реальності. Самоорганізація у соціальних мережах визначається мережевими структурами, які формують світогляд або думку, дають можливість (виступаючи в ролі аттрактору) обрати певну роль у процесі мережевого спілкування або взаємодії.

Ключові слова: віртуальна реальність, віртуалізація суспільства, синергетика, симулякр, гіперреальність.