

MSC 2020**International Scientific and Practical Conference «MAN. SOCIETY.
COMMUNICATION»****BIOPOLITICAL EVOLUTION OF SOCIAL HIERARCHIES IN
THE DIGITAL WORLD**

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Vsevolod.Shipulin@novsu.ru**Abstract**

Socio-philosophical addressing of the biopolitical issues in the context of digitalization is determined by the necessity to study the reasons, consequences, and mechanisms of ongoing changes in the sociocultural and political spheres. Digitalization significantly changes the relationship between power and society, the hierarchy of social institutions, and the ways of power influence. The purpose of this research is to study the institutional cross-section of society in the context of biopolitics and the functioning of formal and informal institutions in the era of the dominance of bio- and information technologies. The study examined the issues related to changes in power priorities in the context of the transformation of social hierarchies, as well as the growing role of science and technology in the processes of social management. The article reveals that today, science and technology serve as the foundation for changes in the structure and as the main value reference of modern society. It is the inextricable link between science and technology that makes possible the biopolitical transformation of traditional management methods. The change in the principles of building social ties under the influence of various, first of all, information and communication technologies, forms a new type of sociality - network society, in which the principles and rules for organizing vertical and horizontal ties between individuals, social groups, and institutions are changing significantly. The implementation of the control impact in such society is carried out through the widespread penetration of power relations into all levels of social interaction.

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1. Introduction

The digitalization of almost all areas and spheres of society life radically changes the priorities of power at all its levels. In the absence of a monopoly on information and censorship that has become practically impossible in the global world, with a high density of social communication, the authorities strive to find and implement basic forms and methods of influencing the sociocultural space that maximize the range and depth of managing human behavior.

However, the relatively high level of development of education in developed countries, the ability to access information around the world, and other transformations of modern society associated with the phenomenon of digitalization make it almost impossible to use traditional methods of management and control.

The classical forms of political relations give way to other forms of power representation, which entails changes in the institutional structure and hierarchy of society. Modern biopolitical scenarios are a “bright” soft power variety “that does not imply direct control and exploitation, but acts indirectly: for example, through artificial constructing and imposing new needs, promoting new types of goods and services. Despite its “softness”, biopower does not cease to be power, since the asymmetry between its subjects and objects remains” (Zhelmin, 2019, p. 320). “Biopower works in such a way that an object, subject to power influence, simply ceases to feel any pressure, realizing what is happening as something inherent” (Alasania, 2018, p. 75).

2. Problem Statement

The modern digital society is an environment dominated by IT and biotechnology. They are becoming the leading tools for forming new and reforming existing sociocultural spaces, building other configurations of formal and informal social institutions, which are often impossible in the context of traditional political relations.

Biotechnologies are “biomedical technologies, which include classical methods of treatment (including psychoanalysis), its newest forms - gene diagnostics and gene therapy, cloning, transplantology, in vitro fertilization, surrogacy in psychopharmacology, as well as control practices of bodily and mental functions based on the medical folklore of mass consciousness” (Tishchenko, 2001, p. 4).

The era of biotechnology would not have been possible without another important component of progress: information technology. The highest computing power of modern computers, united in local and global networks, makes it possible to operate with large amounts of data, to exchange information between subscribers in the shortest possible time, to build and maintain high-tech production chains, etc. It is important to stress that “the processes of production informatization, digitalization, and technicalization and the processes of social practices technologization are always superimposed on the processes of penetration and saturation of technologies with scientific achievements. Through innovative technologies based on scientific achievements, science actively forms the image, as well as the structural and functional basis of the modern postindustrial society” (Pelevin, 2020, p. 104).

The latest scientific achievements in the field of biology and IT have become the reference point for the authorities in the era of high technology: it is on this “scientific basis” that the production and

consumption management processes are built; control over social processes and the activities of individuals is carried out.

3. Research Questions

The major research questions are as follows:

3.1. How are social hierarchies being built in the context of reformatting political relations?

3.2. What transformations are the hierarchies of social institutions undergoing in the era of development of biotechnology and neural networks?

3.3. How does the new model of political relations affect the emergence of social institutions, their functioning, and the principles of coordination?

4. Purpose of the Study

The purpose is to study the institutional cross-section of society in the context of biopolitics and to assess the functioning of formal and informal institutions in the era of the dominance of bio- and information technologies.

4.1. Analyze the conditions for the formation of a new socio-cultural environment, within which the transformation of political power and the construction of new social hierarchies take place.

4.2. Find out the reasons and mechanisms of social hierarchies transformations in the context of widespread informatization, digitalization, and technization of society.

4.3. Determine how the new political model forms new social hierarchies and determines the principles of their functioning and coordination.

5. Research Methods

5.1. This study is based on the concepts of biopolitics and biopower formulated in the philosophical concept of Foucault (2011), his numerous followers and interpreters Agamben (2011), Hardt and Negri (2004), Butler (1993), Esposito (2008) and others. Various aspects of this problem are considered in the articles by Prozorov (2007), Samovolnova (2017), Rodin (2017), Parchev (2018), Zhelnin (2018, 2019), Nikolai (2019), Kaplun (2019), Skopin (2019), and others.

5.2. An interdisciplinary approach is also used, which combines the methodological principles of biology, psychology, ethology, and other social and natural sciences. This approach allows forming a holistic view of human behavior, determined by both natural and social factors (Gobrusenko, 2014; Sivkov, 2018).

6. Findings

6.1. At present, social, including power, transformations are carried out in regards to the latest achievements of science, thus, a special attention should be paid to considering this institution as one of the fundamental management tools. Already in 1930-1940s, there was a substantial interest in the management

potential of such sciences as systems theory and cybernetics, because “from the cybernetic point of view, the world appears as a multidimensional set of complex dynamical systems” (Kobylin, 2019, p. 274). The study of such systems makes it possible not only to predict their activities, thereby exerting a preventive effect, but also to actively intervene in the complex connections and relationships built within them, carrying out their necessary adjustment, and programming the required result in advance. One of the features of the contemporary development of science as a social institution and a sphere of human activity is its reliance on high technologies and close ties with production. It is the inextricable link between science and technology that makes possible the existence of such effective methods of managing activities, built on a scientific basis. However, “modern, high-tech production, which in its time had come from science, now completely subjugated and eventually “decomposed” it. Technologies that gained independence have lost their human dimension. Starting to develop according to their own autonomous laws, technologies endangered the very existence of nature and man” (Kobylin, 2019, p. 279).

The absence of human dimension in technology, primarily in those industries where the loss of control poses the greatest threat (from nuclear power to genetic engineering), makes us look at security problems differently. Thus, “the tragedy of 2011 (Fukushima, Japan) sharply undermined public confidence not only in nuclear technology, but also, in a broader sense, in science and technology, however, many people continue to pin high hopes on science, expecting that only scientific methods are able to cover multiple and varied facts of reality and to reconcile the conflicting interests of the actors” (Pyastolov, 2016, p. 140). The safety requirement is especially acute in situations of hardly predictable behavior of certain systems, as well as in situations of a high degree of uncertainty in their behavior. A paradoxical situation appears: on the one hand, uncertainty is an integral property of natural and social systems (see, for example, Karabanov, 2017; Mikhina, 2018; Sokolova, 2018), which must be taken into account when interacting with them; on the other hand, the main task of both scientific management and power influence is the minimization of uncertainty and the requirement to achieve maximum predictability of the system’s behavior.

6.2. Managing risk and minimizing uncertainty in a biopolitical context means constructing a social reality that meets the requirements for predictable behavior control. In other words, it is necessary to recombine social relations, the control effect on which would be as imperceptible as possible for their participants, or not at all considered as a control effect. The following statement reveals the concept of biopower in the best way: “Biopower is invisible and therefore effective” (Alasania, 2018, p. 74). The implementation of the managerial (in this context also controlling) influence becomes more imperceptible and more effective if it receives larger institutional coverage. Evidently, social institutions, both formal (official) and informal (unofficial), perform the functions of consolidating and reproducing social relations; within their framework, they also regulate the behavior of social relations participants. Social institutions always depending on the degree of their social significance or the degree of influence on an individual, form certain hierarchies, which is true for both formal and informal institutions. The change in the principles of building social ties under the influence of various, first of all, information and communication technologies, forms a new type of society – a network society, in which the principles and rules for organizing vertical and horizontal ties between individuals, social groups, and institutions are significantly changing. Networking fundamentally changes a person’s attitude to the world, relationships between people

both within the framework of one social group and in the practices of intergroup interaction. Relations within the framework of the 'individual-institution' system are also being transformed: the once dominant vertical ties are increasingly fading into the background, giving way to horizontal ties that are mostly informal. Lysak (2018) notes that the world seems to have returned to the "traditional "rural" way of life, where everyone knows about everyone, where there is nothing intimate and secret" (p. 77). In a network society, there is a gradual reduction in the number, or even a complete disappearance of intermediaries between the producer and the consumer, the citizen and the state due to the introduction of various information services and Internet applications. On the one hand, it makes the life of an individual much easier; on the other hand, it creates a previously unthinkable field of control and space for the widespread implementation of "soft" control actions.

6.3. In such conditions, it is no longer possible to talk about directive management, the power of order, etc. Undoubtedly, the state power and other official institutions exercising the governing influence have not gone anywhere; even more so, they have not lost their former power. However, informal institutions, often even inconceivable as traditional carriers of power, have a great influence on the behavior of individuals and groups. For example, medicine today has a truly colossal control effect. By all means, medicine can hardly be called an informal institution, but it is not an institution of power to the full extent. Zhelnin (2019) states the tendency of social space medicalization, arguing that "increasing number of problems is being considered in the field of medicine" (p. 323). Indeed, medicine permeates literally the entire existence and activity of humanity: from birth (and even earlier) (Kapoor, 2018; Sakevich et al., 2016) to death (and even after) (Skopin, 2019). Medicine is closely related to pharmaceutical companies, research laboratories, insurance, the public health system, private business, etc. – this is the main power of its governing influence. As a social technology, medicine is connected, on the one hand, with Big Data and IT (Sharon, 2018); on the other hand, it relies on the latest advances in biology, primarily bioengineering. The engineering approach in medicine is becoming dominant: if experiments on a human and human DNA are still under formal ban in most developed countries, the creation of other genetically modified organisms with given properties, for example, in agriculture, has already become common practice. The use of big data allows collecting and processing a considerable amount of information: genetic, clinical, and life data of hundreds of millions of people. On the one hand, it opens up a lot of opportunities for early diagnosing and overcoming many, including hereditary, diseases as another step towards personalized medicine; on the other hand, it creates unprecedented management potential, in comparison with which the manipulative effect of modern mass media seems like a child's fun.

One more fundamental point cannot be ignored: power relations have penetrated into the relationship between a human and technology. First of all, we mean the dependence of everyday human life on modern gadgets. A person today is simply forced to rely almost everywhere on technology, first of all, on electronics, which controls, in the literal sense of the word, every step (we are talking about navigators, fitness trackers, planners, etc.). If earlier technology was an auxiliary tool, now it has turned into the environment of human existence; nowadays, it is almost impossible to imagine human life without technology. Moreover, the so-called "smart technology" is rapidly developing, based on artificial intelligence that surpasses human intelligence in many ways. Thus, the power subordination of artificial intelligence capabilities opens up unlimited possibilities in the field of management.

7. Conclusion

The next stage of the information revolution, often referred to as digital, has significantly changed the face of modern society, radically transforming many of its spheres and institutions. The economy, politics, law, science and technology, education and culture, communication, and everyday life have undergone a radical transformation. In the context of the changes considered, the tasks of political governance have also changed: the most important task of the authorities is to change the very essence of a person, and the change should be regular and permanent. Modern biotechnologies, primarily genetic ones, combined with progress in the IT field, already allow this task to be partially performed. Institutional transformations, in which informal institutions and horizontal ties come to the fore, are actively pushing official institutions with their vertical ties aside; they form a new type of power where the power relations dissolve, penetrating all levels of social interaction, including human-technology relationship which was not previously observed.

References

- Agamben, J. (2011). *Homo Sacer. Suverennaya vlast' i golaya zhizn'* [Homo Sacer. Sovereign Power and Naked Life]. Evropa.
- Alasania, K. Yu. (2018). Filosofskaya kontseptsiya biovlasti: istoki i perspektivy [The philosophical concept of biopower: origins and perspectives]. *Vestnik Moskovskogo universiteta. Seriya 7. Filosofiya* [Moscow University Bulletin. Series 7. Philosophy], 4, 70-77.
- Butler, J. (1993). *Bodies That Matter: On the Discursive Limits of "Sex"*. Routledge.
- Esposito, R. (2008). *BIOS: Biopolitics and Philosophy*. Minneapolis: University of Minnesota Press
- Foucault, M. (2011). *Bezopasnost', territoriya, naseleniye. Kurs lektsiy, pročitannykh v Kollezh de Frans v 1977–1978 uchebnom godu* [Security, Territory, Population. A course of lectures given at the College de France in the 1977-1978 academic year]. Nauka.
- Gobrusenko, G. K. (2014). Novyye strategii kontseptualizatsii prostranstva v sovremennykh "Issledovaniyakh nauki i tekhnologii" [New strategies for conceptualizing space in modern "Science and Technology Research"]. *Vestnik Moskovskogo universiteta. Seriya 7. Filosofiya* [Moscow University Bulletin. Series 7. Philosophy], 2, 40-57.
- Hardt, M., & Negri, A. (2004). *Imperiya* [Empire]. Praxis.
- Kaplun, V. (2019). Perestat' myslit' "vlast'" cherez "gosudarstvo": gouvernementalité, governmentality studies i chto stalo s analitikoy vlasti Mishelya Fuko v russkikh perevodakh [Stop thinking "power" through "state": gouvernementalité, governmentality studies and what happened to Michel Foucault's analysis of power in Russian translations]. *Filosofsko-literaturnyy zhurnal "Logos"* [Philosophical and literary magazine "Logos"], 29(2), 179-220. <https://doi.org/10.22394/0869-5377-2019-2-179-218>
- Kapoor, P. (2018). Communicating Gender, Race and Nation in the Purvi Patel case: The State, Biopower, and the Globality of Reproductive Surveillance. *Gender and Women's Studies*. 2018, 1(1). <https://doi.org/10.31532/GendWomensStud.1.1.004>
- Karabanov, A. P. (2017). Sovremennyye podkhody k ponimaniyu kontsepta neopredelennosti [Modern approaches to understanding the concept of uncertainty]. *Steps*, 3(1), 49-63.
- Kobylin, I. (2019). Igrы metodologov: Michel Fuko i "orgupravlencheskiy" proyekt Georgiya Shchedrovitskogo [Games of methodologists: Michel Foucault and the "organizational management" project of Georgy Shchedrovitsky]. *Filosofsko-literaturnyy zhurnal "Logos"* [Philosophical and literary magazine "Logos"], 29(2), 268-288. <https://doi.org/10.22394/0869-5377-2019-2-268-285>

- Lysak, I. V. (2018). Setevizatsiya ku'tury: na puti k obshchestvu vzaimnoy prozrachnosti [Networkization of Culture: Towards a Society of Mutual Transparency]. *Manuscript*, 4(90), 75-79. <https://doi.org/10.30853/manuscript.2018-4.16>
- Mikhina, M. V. (2018). Neopredelennost': osnovnyye kharakteristiki i opredeleniye [Uncertainty: basic characteristics and definition]. *Innovatsionnaya nauka* [Innovative Science], 2(5), 140-143.
- Nikolai, F. (2019). Diskurs bezopasnosti i politicheskaya anatomiya strakha v epokhu "Novykh voyn" [Security Discourse and the Political Anatomy of Fear in the "New Wars" Era]. *Filosofsko-literaturnyy zhurnal "Logos"* [Philosophical and literary magazine "Logos"], 29(3), 217-230. <https://doi.org/10.22394/0869-5377-2019-3-217-228>
- Parchev, O. (2018). Biopower, Sadomasochism, and Pastoral Power: Acceptance via Transgression. *Sexuality and Culture*, 23(1), 337-355. <https://doi.org/10.1007/s12119-018-9563-x>
- Pelevin, S. I. (2020). Postindustrial'noye obshchestvo v usloviyakh tsifrovizatsii [Postindustrial society in the context of digitalization]. *Manuscript*, 13(7), 101-104. <https://doi.org/10.30853/manuscript.2020.7.18>
- Prozorov, S. (2007). The Unrequited Love of Power: Biopolitical Investment and the Refusal of Care. *Foucault Studies*, 4, 53-77. <https://doi.org/10.22439/fs.v0i4.894>
- Pyastolov, S. M. (2016). Genezis i perspektivy transdistsiplinarnosti [Genesis and perspectives of transdisciplinarity]. *Terra Economicus*, 14(2), 139-158. <https://doi.org/10.18522/2073-6606-2016-14-2-139-158>
- Rodin, L. (2017). Studies on Governmentality: six epistemological pitfalls. *Sotsiologicheskoe obozrenie* [Sociological Review], 16 (2), 9-28. <https://doi.org/10.17323/1728-192X-2017-2-9-28>
- Sakevich, V. I., Denisov, B. P., & Rivkin-Fish, M. (2016). Neposledovatel'naya politika v oblasti kontrolya rozhdayemosti i dinamika urovnya abortov v Rossii [Inconsistent birth control policies and dynamics of the abortion rate in Russia]. *Zhurnal issledovaniy sotsial'noi politiki* [Journal of Social Policy Research], 14(4), 461-478.
- Samovolnova, O. V. (2017). Sotsial'no-filosofskiy analiz osnovnykh kontseptsiy biopolitiki: M. Fuko, Dzh. Agamben, A. Negri. [Socio-philosophical analysis of the basic concepts of biopolitics: M. Foucault, J. Agamben, A. Negri]. *Vestnik RGGU. Seriya "Filosofiya. Sotsiologiya. Iskusstvovedeniye"* [RGGU Bulletin. Series "Philosophy. Sociology. Art history"], 4-2(10), 261-271.
- Sharon, T. (2018). When digital health meets digital capitalism, how many common goods are at stake? *Big Data & Society*, 5(2). <https://doi.org/10.1177/2053951718819032>
- Sivkov, D. (2018). Svoye ili chuzhoye? Sozdaniye tela v immunologii [Yours or someone else's? Building a body in immunology] *Filosofsko-literaturnyy zhurnal "Logos"* [Philosophical and literary magazine "Logos"], 28(5), 249-286. <https://doi.org/10.22394/0869-5377-2018-5-249-282>
- Skopin, D. (2019). Upravleniye umershimi: distsiplina i biopolitika [Managing the Dead: Discipline and Biopolitics] *Filosofsko-literaturnyy zhurnal "Logos"* [Philosophical and literary magazine "Logos"], 29(2), 82-103. <https://doi.org/10.22394/0869-5377-2019-2-82-101>
- Sokolova, O. I. (2018). Ponyatiye "neopredelennost'" v kontekste vzaimodeystviya subjekta i objekta nauchnogo poznaniya [The concept of "uncertainty" in the context of the interaction of the subject and the object of scientific knowledge]. *Vestnik Mininskogo universiteta* [Minin University Bulletin], 6(2), 17. <https://doi.org/10.26795/2307-1281-2018-6-2-17>
- Tishchenko, P. D. (2001). *Bio-vlast' v epokhu biotekhnologiy* [Biopower in the Age of Biotechnology]. IFRAN.
- Zhelnin, A. I. (2018). Biovlast' kak obshchesotsial'nyy fenomen i yeye sovremennyye krizisnyye transformatsii [Biopower as a general social phenomenon and its modern crisis transformations]. *Vestnik Tomskogo gosudarstvennogo universiteta. Filosofiya. Sotsiologiya. Politologiya* [Bulletin of Tomsk State University. Philosophy. Sociology. Political science], 41, 49-56. <https://doi.org/10.17223/1998863X/41/6>
- Zhelnin, A. I. (2019). Biopolitika i biopoliticheskaya ekonomiya: sushchnost' kontseptov. [Biopolitics and Biopolitical Economy: the Essence of Concepts]. *Vestnik Permskogo universiteta. Filosofiya. Psikhologiya. Sotsiologiya* [Perm University Bulletin. Philosophy. Psychology. Sociology], 3, 320-330. <https://doi.org/10.17072/2078-7898/2019-3-320-330>