

AMURCON 2021
AmurCon 2021: International Scientific Conference**DIGITALIZATION OF MODERN SOCIO-ECONOMIC AND
POLITICAL-LEGAL PROCESSES: BASIC SCENARIOS AND
ANALYTICAL TOOLS**

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Russky Island, Vladivostok, Russia, olga-star.05@mail.ru**Abstract**

The paper examines the intensive development of digital technologies, which have significantly accelerated and received a specific development vector during a global pandemic, together with its impact of the latter on the socio-economic and political-legal dynamics of modern societies. The content of the study presents a characteristic and a meaningful description of paradigmatic changes in the development of socio-economic and political-legal processes, defining the main vectors and scenarios of social dynamics. The authors substantiate the theoretical and methodological strategy of the study and discuss analytical tools that make it possible to highlight, describe and predict the interaction and mutual influence of digital, socio-cultural, biological, and other factors on the evolution of socio-economic and political-legal relations. At the same time, scholars argue that any forecast at present, any strategy will be inadequate if, in addition to behavioural and other social factors, they do not include development modelling of digital forms and technologies. In conclusion, the paper discusses the key risks and threats connected with ensuring social integrity in the digital era of social development. The authors have shown that the main risk is associated with the fact that the intensive development of algorithmic systems can devalue the meaning and value of public-power interaction between the individual, society, and the state. Moreover, the development of autonomous expert systems, automatic information collection, machine processing of social requests, and response formation can form a sufficiently large distance between the governing bodies and the population, reducing the potential legitimacy.

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1. Introduction

1.1. The main features of modern socio-political dynamics

In 2020, large-scale and contradictory processes took place, which changed the usual way of life, redefined values and needs anew, introduced new dangers, risks, and social fears into the game. 2020 will be the point on the historical coordinate axis with which the beginning of qualitative changes and cardinal transformations in the economy, politics, law, culture, and the like are associated.

Of course, the processes initiating these changes began long before the "phenomenon of 2020" occurred. But it is the latter that will become the "historical marker" that highlighted them, emphasizing all the shadowy and barely noticeable trends that were formed long before its onset. These trends are associated with the anthropocentric nature loss of all evolving events and awareness of the multi-factor character and the complexity of the existing reality. This nature is noticeable through both a system of visible and a series of hidden, imperceptible, indistinguishable factors (Morton, 2019). The so-called fourth industrial revolution originated long before the present time was gradually being prepared throughout the twentieth century, bringing into play more and more new factors, reasons, and conditions for the deployment of social, biological, technological, environmental, and other processes and events (Baranov et al., 2019). "2020" has clearly shown that all the activities of natural (ecology), biological (viruses), technological (digital systems), and social (mental structures, institutions) character participate in the evolution of the socio-political and socio-economic life of society. They "equally" determine our strategies and practices, significantly influencing the formation of the current agenda, social relations, and order.

"Phenomenon 2020" brought together into a symbolic unity a whole series of diverse trends: ecological, biological, digital, socio-cultural, and others at once, presenting their diversity and contradictory nature in a kind of antinomic integrity. All these trends are interrelated. They develop together and determine the trajectory and character of each development. The latter are not external; they are part of the reality in which modern society lives. They are integral elements and indestructible factors that determine both the socially constructed world and the biological existence of human beings (Covid-19 reminded this very vividly).

Currently, social activity is "adjacent" or unfolding together with non-human elements processes. Today, socio-political orientation is increasingly explicit through digital forms that generate specific socio-cultural and digital reality (Mamychev et al., 2020). It is crucial to consider that socio-political reality also modifies digital development trajectories and forms development specifics of digital algorithms in machine learning. The latter is implemented based on specific social data and cultural artefacts, during which the development of these algorithmic systems receives a specific socio-cultural component. All this determines the trajectory of further development of digital algorithmic systems and systems of weak artificial intelligence. Thus, the introduction of an autonomous digital system or a specific algorithmic solution in different communities, trained on a definite "socio-cultural foundation," leads to totally different trajectories of their development, to the formation of so-called "biases of digital systems," "digital forms of discrimination," "digital forms of differentiation," and the like.

2. Problem Statement

The subject of this study is to identify the fundamental transformation trends in the socio-political and socio-economic spheres of the current society, caused by a series of factors dominating and having a significant impact on the evolution of capitalist management forms, democratic institutions, and procedures for the organization and exercise of public power. The facts analyzed in this paper include biological threats and risks associated with the new coronavirus infection pandemic together with the processes of development, implementation, and operation of end-to-end digital technologies. However, it should be emphasized that these factors are not considered separately but as an interconnected series of events and processes. On the one hand, such trends change the economy, politics, and cultural system development. On the other hand, they change the trajectories of digital, biological, and other threats, their perception, and interpretation.

In this regard, it is necessary to study the crucial changes in the contemporary societies' economic, political, and socio-cultural systems of modelling the main transformation scenarios of the latter. It is significant to clarify that within the framework of this research, the authors proceed from the following hypothesis that in today's forecasting, any strategy will be inadequate if, in addition to behavioural and other social factors, they do not include modelling of the development of digital forms and technologies. In other words, modern socio-political forecasting and public-legal management no longer lay down only the "social" as the fundamental element and the dominant trend. Traditional social forms of organization, socio-political management technologies, and social development trends are significant but not the only factors in the dynamics of modern societies.

3. Research Questions

When identifying the reconstruction of fundamental transformation trends in the socio-political and socio-economic organization, it is necessary to determine the main changes in current societies to analyze.

1.1. Viral pandemic influence has set specific trends in the development of digital control systems, accounting, identification and differentiation of social processes, modification of socio-political systems, and practices related to the formation of specific biosecurity systems, social and medical distant practice, self-isolation regimes, the transformation of value-normative orientations, and the like.

1.2. The development of digital technologies and their complete introduction into political, economic, and other social processes has led to the shift of the industrial to the post-industrial or digital era. In turn, the latter radically changes, first of all:

a) the political arena of the confrontation of interests and articulation of significant needs, as well as the problematization of the statuses of both traditional political actors (the state, parties, organizations, trade unions, and the like) and the new drivers of the era status, which are still complicated to designate with the traditional concept of "subject" (digital personalities, digital platforms, and other active digital actors);

b) institutional structures, institutional political communication, and public-power relations in society, which, under the influence of digitalization, lose their traditional resource of legitimacy and

social significance, and most interactions are implemented through digital intermediaries (platforms, algorithms, and the like) (Bennett, 2018). At the same time, the real power and the centres of managerial decision-making are shifting from the public space to a new spatial sphere – "digital laboratories";

c) the forms and technologies of civil (digital activism, digital civil society) and military resistance are changing. It is already evident that modern end-to-end digital technologies make it possible to broadcast and project both material, physical, and symbolic effects, of a significant and defining nature, not only on spheres and relationships but far beyond the aisles of the latter;

d) the principal mobility centres, forms, and social communication technologies are being restructured, and the essential resources of a social organization are also changing. The population, organizations, mechanisms, and algorithms produce the most crucial data. Data becomes the basis for the constant information and content circulation and the foundation for the contemporary "digital formation."

1.3. Currently, digital technologies are considered a factor, changing the conditions of the political game and economic competition. Digital platforms are new technical and organizational elements that can alter the dynamics of consolidated socio-economic and socio-political models. It should be noted that non-institutional initiatives on digital platforms affect the prospects of socio-economic and political-legal dynamics and their democratic or authoritarian development patterns (Vasiliev et al., 2020). Non-institutional platforms influence the situation with overcoming the democratic deficit and, to some extent, are aimed to transform the country's politics by creating new mechanisms for political participation and promoting a change in political culture. The latter can change the domestic political landscape.

In addition, there is a so-called "entertainment policy" when significant political issues are discussed on digital platforms in a form that is attractive to the broad majority (memes, short humorous videos, deep fakes, and the like). As studies show, in countries with a high degree of penetration of information technology into public life, the trend will continue to increase the share of digital entertainment political content (Baranov et al., 2020). Shortly, the political agenda will involve layers that have not previously participated in this. These may lead to further mobilization of the political activity of young people.

4. Purpose of the Study

The aim of the paper is an interdisciplinary reconstruction and a meaningful description of paradigmatic changes in the development of socio-economic and political-legal processes together with the key vectors and scenarios of social dynamics identification under digitalization and pandemic conditions development of politics and economics. In the context of goal realization, a theoretical and methodological research strategy, and analytical tools are proposed that allow highlighting, describing, and predicting the interaction and mutual influence of digital, socio-cultural, and other factors on the evolution of socio-economic and political-legal relations. The authors believe that any forecast, socio-political strategy, or socio-economic development plan will be inadequate nowadays if, in addition to behavioral, institutional, and other social factors, they do not include digital forms and technologies development modeling together with possible biological, environmental and other claims and threats. In this regard, the formulation of principal risks and hazards associated with ensuring socio-political integrity in the digital era of social development serves as a target orientation.

5. Research Methods

The present study focuses on a "post-disciplinary strategy" of research, which combines socio-humanitarian forms and cognition methods (political science, sociology, philosophy, cultural studies, and law), along with several theoretical and methodological provisions of technical and biological sciences.

The post-disciplinary strategy of the research team takes as a basis the problem field and not the disciplinary requirements and provisions of a particular discipline, thereby not limiting the perspective of the problem field and the limitations of the theoretical and methodological arsenal of the specific subject. On the contrary, the team's work is aimed to form a complex subject orientation, which "draws" into the communicative process – achievements and positions, first of all, of various social and humanitarian sciences, involving categories, concepts, and ideological and conceptual innovations of natural sciences.

The example of the latter is such concepts and categories as convergence, assemblage, "fluidity," and the like, the knowledge used in the political system to describe transitional, mixed political systems or political effects caused by the digital technologies development; or ideological and conceptual innovations of synergetics, organically incorporated into the humanitarian studies system. Another example is the philosophical system formation based on Alain Badiou's mathematical justification and modelling of the socio-political process (1988). Or Jane Bennett's vitalism (2018), which substantiates that vitality/materiality is capable of generating new social and political effects, and the matter is not something "dead and passive," that it has a result and can radically change the course of political, economic and other events.

In this regard, the post-disciplinary approach focuses not on the subject, giving the field to the interaction with various sciences, but on the phenomenon under study itself. The provisions, methods, and techniques of different disciplines are involved in joint co-creation; in scientific discussion about the target phenomenon. At the same time, the complexity of the phenomenon under study, the diversity of the object-subject field, and the complexity of research tasks determine the interaction of various branches of knowledge and use of specific thinking styles, interdisciplinary approaches, methodological principles, and cognition tools.

The "post-disciplinary field of research" should be considered mainly as a scientific metaphor rather than a strictly scientific concept. Theoretical and practical concept formation of transformation and the socio-political processes modelling under the digital technologies influence, their usage in various spheres of social or virtual interaction, is based on a series of ideological and semantic foundations, a system of fundamental concepts, along with developed and applied in different disciplines attitudes.

"Post-disciplinarity," as the leading methodological principle of this study, does not replace or cancel the interdisciplinary cognition principle, characteristic of postclassical rationality. On the contrary, it complements the inter-disciplinary approach and "insures" it from one disciplinary dimension priority. The "post-disciplinary field" forms holistic thinking based not on the various aspects of the phenomenon under study fragmentation and the representation of the knowledge system about it in a structural form, but the holistic perception of life situations caused by specific human relationships and autonomous robotic devices, digital technologies, algorithms, and the like.

At the same time, the disciplinary framework itself is considered conditional analytical tools and techniques since this research project is based on a free, equal communicative dialogue between different knowledge systems. The problem consideration and research tasks solutions are impossible without various knowledge systems interaction.

The methodological and theoretical foundation of the research is also substantially based on developments in political science, state studies, theory, and methodology of the political process belonging to domestic and foreign scholars, along with definite provisions of political anthropology and conflictology. The research is based on universal, general scientific and specific cognition methods. Among the universal approaches, it is necessary to single out a systematic approach, dialectical-materialistic methodology, together with a dispositive one. They are used to consider political phenomena in the context of images reproduced in national-cultural activity, a system of ideas about social and power practices that significantly affect the transformation patterns of political relations in the XXI century. The general scientific methods used in the study include methods of induction and deduction, analysis, synthesis, and analogies used to identify factors, dominants, trends, and patterns of the political evolution of social systems, forms, and methods of power interaction in the personality–society–state system.

Anne-Marie Mol's methodological principle was also significant for this study (Mol & Law, 1994) along with some others. According to them, people, things, machines, and digital technologies jointly form unique and specific relationships used to build, mediate, objectify, and define each of them. Scholars call this principle the "assembly method." It focuses on how these specific relationships are created and how they unfold. Most importantly, technologies and machines in these relationships are considered integral "agents" that form and influence practical activity and its nature.

Additionally, we should discuss specific methodological principles along with the general theoretical and methodological foundations of this paper.

1.1 Today, socio-political thinking and research practices also transform the dictionary in describing the unfolding events and processes, the concepts and ideas from various descriptive systems, and research protocols implementation. We observe an intensive search for a new dictionary that:

- on the one hand, it can adequately describe the current radical changes in society, politics, the law under the digital transformation influence, the unfolding long-term viral pandemic, as well as accelerated climate change;
- on the other hand, to provide an opportunity to consider various systems (social, ecological, biological, physical, and digital) as interrelated and equivalent, without prioritizing more than one of the regions/dimensions.

This transformation is already tangible, since the importance of digital systems, the technical needs of digital infrastructure, biological and environmental dominants are becoming equivalent in their status, and not infrequently leading, concerning the interests and needs of a person, their groups, and communities. Today other guidelines come to the fore, conditioned by the needs of systems that nominally serve us. But for which the social value-normative codes and standards are not leading in the trajectory of their development.

1.2 The principal emphasis in modern research is placed on the mutual influence of various systems, on how different "fields" resonate with each other and reinforce each other, determining the

development trajectories of each of the elements. Thus, digital algorithms development and its implementation specifics are influenced by the development trajectory of the viral threat. It ensures the control and biosecurity of the population, maintaining social processes controllability, and the reproduction of the current economic, political, legal, and other orders (Baranov et al., 2019; Greenfield, 2018). In this aspect, algorithmic solutions, modelling the development of the virus, mathematical calculations and diagrams of its spread, management decisions are taken, and specific socio-legal control and coordination regimes work together, influencing each other.

1.3 In today's rapidly changing reality, the "projected future" acts as a significant marker in the interpretation of the past, the main reference point in the evolution of social (legal, political, economic, and the like) systems functioning today (Mamychev et al., 2020; Ovcharenko et al., 2021; Vorontsov et al., 2019). This "projective future" is not filled with positive connotations but, on the contrary, contains a whole range of fears, risks, and threats about the future state of the economy, politics, state, and society. In this "projective future," the general logic of linear forward movement remains from the traditional concept of progress, only unlike the latter; this movement is not towards a more perfect, but towards a ricogenic social structure and ambiguous social processes. The future itself is associated with negative expectations and numerous crises. It is realized in various models and activities dedicated to society's socio-economic and political-legal organization projects.

Of course, other types of mental activity are involved in this future design - regression, and cyclism (permanentism), reinforcing these negative connotations. The discourse of the "projective future" also determines the number of trends: forecasting the riskiness and instability of social development, the negative consequences of the progressive evolution of social systems, logically determines the spread of post humanitarian forms of control, authoritarian regimes of public-power relations and strict restrictive scenarios, and "projective future," rather than experience, cultural dominants, traditional values. The discourse, not the projective future, is today's "driver" of evolutionary changes and qualitative transformations in the social system. And within the framework of state legal practice, it has led to the active development of the format of instability and uncontrollability of complex systems.

In this regard, the "Projective future" is the key on the agenda. It acts as the fundamental "driver" of socio-political and socio-economic transformation. In this capacity, the "projected future" becomes an attractor, serving not as a specific cause or factor but as a dynamic area attracting multi-vector development trajectories - social, biological, digital, cultural, political, legal phenomena.

Such research optics allows us to see the moving forces of a multitude (not structured and not subordinate to the social hierarchy or the current institutional order) of classical systems (biological, social, physical, digital) attracted to the minimum point of the space of possibilities. The attractor determines their long-term development trends. At the same time, the attractor forms a possibilities area that cannot be predicted in advance by considering individual stable trajectories (social or biological, digital or physical) of specific systems. Otherwise, digital technologies are not just the main transformation reason of socio-political reality or the "main culprit" of the paradigm shift and the destroyer of stable traditional forms of political communication and organization. Biological threats do not only generate a specific trajectory of the functioning of the political and legal regime. A particular type of social activity also determines the scenario and dynamics of the latter's development during the

pandemic. In this regard, the theoretical and methodological strategy of research, which proceeds from the "equivalence" and the interaction of social, biological, physical, and digital, seems quite adequate. The joint combination and action determine the future trends of socio-political dynamics.

1.4 It is necessary to consider various systems' interactions (biological, physical, socio-cultural, digital) in their mutual influence. We can predict how they resonate and reinforce each other, influence changes in the trajectories of each of the elements in modelling socio-economic, political-legal dynamics, and thus design target orientations for the development of various spheres of society's life. On the one hand, at the same time, it is necessary to form the uniqueness and of each of the factors specificity. On the other hand, it is essential to assume the development of "emergent effects" from their interaction. We need to consider the interaction and mutual influence of digital forms, biological factors, socio-cultural dominants, and their combined impact (an ontologically unique combination) on socio-political events formation.

1.5. In addition, mental and cultural foundations of the society, expressed in prototypes and stable ideas, along with normative and value orientations that set patterns of the socio-political life and models of public-power interaction, are the active, significant, and relatively autonomous elements in social dynamics. These elements in socio-cultural studies are also considered as active and influencing actants, interacting with specific practices and modern strategies, determining the formative trends and directions of subsequent socio-cultural transformations.

6. Findings

In the socio-economic and political-legal spaces of modern society, in addition to existing, traditional actors (political subjects, legal subjects, economic subjects), innovative actors (digital actors, digital personalities, autonomous robotic algorithms, and technologies) have also appeared. They serve not only as digital aggregators but as significant, active elements (digital and virtual actors) since they behave according to their digital strategies and machine learning trajectories.

At the same time, these active elements perform not only advisory/expert but also administrative functions in many areas. On the one hand, new actants do not only actively influence the activities of traditional political subjects, the nature of the interaction, and the development direction of public-power relations in the personality –society–state system. On the other hand, more importantly, they develop strategies in both public and individual (private) spheres.

3.1. The influence of the biological challenges on socio-economic and political-legal processes on the example of infectious diseases indicates their complex effect. Thus, we can characterize the coronavirus pandemic as a "systemic shock" that combines economic, social, and political consequences. Despite the accelerated development of technologies, widespread digitalization, and informatization of socio-political relations, the pandemic revealed the unwillingness of the authorities of many states to respond promptly and effectively to the needs of society in an acute crisis. Today, it is still difficult to predict all the possible consequences of the 2020 crisis. However, according to the most pessimistic forecasts, its socio-political and socio-economic impact may surpass the global financial crisis of 2007-2009 (Kano et al., 2021).

3.2. The political agenda, along with the development of future programs of political parties, doesn't include only the interests of society and specific social groups but also the fundamental trajectories of the development of biological, digital, and environmental system elements. At the same time, the effectiveness of forecasting and modelling of socio-political dynamics will increase if their content, in addition to behavioural, cultural, institutional, and other social factors, includes specific trajectories of the development of digital forms and technologies, biological and environmental factors. In addition, the "projective future" as the fundamental "driver" of socio-political and socio-economic transformation, a specific matrix in assessing ongoing events and processes, leads to the asynchrony of time prospects, to time reduction, and a change in its understanding. In this regard, the chronotype of the policy will change.

To solve these problems, States need to establish development programs for the digital infrastructure and digital competencies and skills formation. These programs should be both for persons providing certain services and for direct consumers of these services covering the state's whole population (and not just a number of its subjects), regardless of their age, social or financial status. These, in turn, will serve as a guarantee not only of effective counteraction to global challenges but also of sustainable economic development of the country.

3.3. At present, management decision-making centres, socio-political expertise centres, expert and analytical communities are shifting from public space to a new hidden spatial sphere – "digital laboratories" (Shamay, 2020). We are talking about the shadow space of source codes and initial algorithmic solutions development for creating specific information and communication systems, robotic technologies, autonomous digital programs, digital technologies, weak and strong artificial intelligence systems, and the like. At the moment, all this activity is "beyond the capacity" of regulatory legal regulation and public control. It is regulated neither by ethical codes and moral standards nor by other value-normative and ideological regulators. It is the sphere of complete voluntarism and arbitrariness.

3.4. In the medium term, one of the principal factors in the development of socio-economic and political-legal dynamics is the algorithmization of processes in these areas, together with the management decision-making process itself, "The government always strives to escape the shackles of law and always gets a certain sphere impervious to law" (Pasquale, 2015). Digital platforms and algorithmic solutions do not just collect and systematize data. Their grouping and interpretation eventually transform the social process, forming specific trajectories and an established coordinate system. Otherwise, the algorithm creates a particular political, economic, and legal reality, along with an individual orientation of institutional and non-institutional elements development within these realities (Rovinskaya, 2021). Here, the collection by algorithmic systems is not reduced to a simple reproduction of aggregated data. In turn, the collected and aggregated data themselves transform the original algorithm itself during machine learning (Isaev, 2021).

3.5. The population needs to receive current information about the country and the world in real-time mode when a state or a society encounters global challenges. Information should be provided in all available forms (television and radio broadcasting, and the like), taking into account the needs of all categories of citizens, based on their age, social and financial situation, which affects the method information is received. At the same time, the disseminated information requires specific control since it

may contain personal people's data, the use of which is possible only in strict accordance with legal regulations based on human rights (Ford, 2020). In this connection, the state should take additional measures to create safe conditions for personal data collection and processing. A side effect of ubiquitous digitalization during the encounter between the state and society with global challenges is a significant increase in cybercrimes with individuals being in danger. It means that in the context of a weakening society and the redistribution of political tasks and tools to combat more global national threats, cybercrime is on the rise.

3.6. The pandemic associated with the spread of coronavirus infection has initiated a specific trajectory of digital technologies and political and legal practices development. Thus, the development trajectory and spreading of Covid-19 significantly influenced the evolution, complication, and mass implementation of digital surveillance systems, registration, identification of both social actors, and the spreading of infection through social networking sites (Lian et al., 2020). Mobile applications have been introduced into a person's life and society, which have formed new modes of interaction between citizens, control procedures, differentiated supervision, and disciplinary practices. In this aspect, the spread of mass data collection and processing systems of public and private character requires ensuring: firstly, data protection from illegal transfer to third parties at the proper level; and, secondly, socio-legal control over their storage, processing, and use, which requires the formation of fundamentally new socio-political institutions and practices.

3.7. In the legal sphere, new directions of extra-legal activity of state authorities have emerged, related to public-governmental activity, not regulated by legal norms, but necessary to prevent infections, restrictions related to a person's movement, self-isolation regime, and the like. New forms of state-legal coercion (for example, to self-isolation regime) and types of adverse legal consequences (for example, sanctions related to violation of the mass regime of use of personal protective equipment) have also developed (Egorova et al., 2021). In this aspect, it is necessary to intensify legal modelling focused on legal principles and mechanisms of regulating the above-mentioned public-power activity of public authorities, together with updating legal technology tools for a quick and effective response to non-standard situations.

3.8. Socio-political processes during the pandemic have clearly shown the absence of actual institutional and non-institutional mechanisms of influence on the "pandemic agenda," the adoption of power and management decisions, as well as effective control mechanisms over the collection, processing, and use of personal data (Mamychev & Miroshnichenko, 2019; Phillips et al., 2021). We should note that the international practice of prior consent of a specific socio-political institute of personal data protection to verify the proper personal information protection and control over their use has not been institutionalized in the modern Russian Federation. In addition, the practice of digital development of systems for controlling and monitoring the development of biological threats, citizens' individual and collective social activity indicates the lack of effective technologies for legitimizing restrictive measures taken, digital surveillance systems, and restrictions (for example, a system of digital passes). The lack of opportunities for citizens to update and delete digital data and user characteristics in these digital systems is also missing.

7. Conclusion

The key risks and threats are currently associated with the idea that the intensive development of algorithmic systems can devalue the meaning and value of public-power interaction between the individual, society, and the state. Moreover, the development of autonomous expert systems, automatic information collection, machine processing of social requests, and forming responses may not only call into question the need for civil servants' specialized professional knowledge and skills but also form a sufficiently large distance between government bodies and the population, reduce the potential legitimacy of the overall power and management structures in the eyes of the public.

In the medium term, the following scenarios will unfold:

a) the renewal of political and economic elites, whose competence will be dominated not by the desire for innovative technological breakthroughs but by a strategic vision of possible scenarios for the "harmonization" of social, digital, biological, and natural factors and dominants of development, as well as the ability to predict possible options for interaction and mutual influence;

b) the formation of new economic, political, and legal institutions that will ensure "intergenerational mobility," focused on the coordination of the existing interests of the individual, society, and the state with the protection and security of future generations, the harmonization of the interests of future subjects of social dynamics and modern development priorities;

c) the doctrinal formulation and the development of the effective mechanisms for the preservation and reproduction of the "humanitarian core" of socio-political dynamics, cultural and anthropological core characteristics of person preservation under threat of biotechnological and biocyphic influences, as well as mechanisms for identifying a person as a biological species and a subject of history;

d) the formation of socio-political institutions and mechanisms that ensure provisions of social-legal control and establish standards for the development, implementation, and operation of digital technologies and biotechnological innovations.

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References

- Badiou, A. (1988). *L'être et l'événement [The being and the event]*. Editions du Seuil.
- Baranov, P. P., Mamychev, A. Yu., Plotnikov, A. A., Vershinina, S. I., & Mychak, T. V. (2019). Interactive communication and modernization technologies of governmental administration in modern society: main contradictions and directions of development. *Turismo-estudos e praticas*, (S1), 216.
- Baranov, P. P., Mamychev, A. Yu., Plotnikov, A. A., Voronov, D. Yu., & Voronova, E. M. (2020). Problems of Legal Regulation of Robotics and Artificial Intelligence from the Psychological Perspective. *Propositos Y Representaciones*, 8, e511.
- Bennett, J. (2018). *Pul'siruyushchaya materiya: Politicheskaya ekologiya veshchey [Pulsating Matter: The Political Ecology of Things]*. Gile Press.

- Egorova, M. A., Minbaleev, A. V., Kozhevina, O. V., & Dufolt, A. (2021). Main directions of legal regulation of the use of artificial intelligence in the context of a pandemic [Основные направления правового регулирования использования искусственного интеллекта в условиях пандемии]. *Vestnik Sankt-Peterburgskogo Universiteta. Pravo*, 12(2), 250-262.
- Ford, M. (2020). *Arkhitektory intellekta: vsya pravda ob iskusstvennom intellekte ot yego sozdateley [Intelligence architects: the whole truth about artificial intelligence from its creators]*. Peter.
- Greenfield, A. (2018). *Radikal'nyye tekhnologii: ustroystvo povsednevnoy zhizni [Radical technologies: the device of everyday life]*. Publishing house "Delo" RANEPА.
- Isaev, I. A. (2021). *Mashina vlasti» v virtual'nom prostranstve (formirovaniye obraza) [The power machine" in the virtual space (image formation)]*. Avenue.
- Kano, T., Yasui, K., Mikami, T., Asally, M., & Ishiguro, A. (2021). An agent-based model of the interrelation between the COVID-19 outbreak and economic activities. *Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences*, 477(2245), 20200604.
- Lian, W., Wen, L., Zhou, Q., Cheng, W., & Tian, J. (2020). Digital health technologies respond to the COVID-19 pandemic in a tertiary hospital in China: Development and usability study. *Journal of Medical Internet Research*, 22(11), e24505.
- Mamychev, A. Yu., & Miroshnichenko, O. I. (2019). Modeliruya budushcheye prava: problemy i protivorechiya pravovoy politiki v sfere normativnogo regulirovaniya sistem iskusstvennogo intellekta i robotizirovannykh tekhnologiy [Modeling the future of law: problems and contradictions of legal policy in the field of regulatory regulation of artificial intelligence systems and robotic technologies]. *Legal Policy and Legal Life*, (2), 125-133.
- Mamychev, A. Yu., Kim, A. A., & Frolova, E. E. (2020). «Budushcheye» kak attraktor sovremennykh politiko-pravovykh i sotsial'no-ekonomicheskikh transformatsiy: obzor osnovnykh problem i podkhodov ["The future" as an attractor of modern political, legal and socio-economic transformations: an overview of the main problems and approaches]. *Advances in Law studies*, 8(5), 3-17.
- Mol, A., & Law, J. (1994). Regions, Networks and Fluids: Anaemia and Social Topology. *Social Studies of Science*, 24, 641-671.
- Morton, T. (2019). *Giperob"yekty: filosofiya i ekologiya posle kontsa mira [Hyperobjects: Philosophy and ecology after the end of the world]*. Gile Press.
- Ovcharenko, G. V., Petruk, G. V., Larkina, N. G., & Yalanskiy, A. P. (2021). Public administration in the context of reflection of the modern innovative digital level of economic development. *Nexo Revista Cientifica*, 34(01), 219-228.
- Pasquale, F. (2015). *The Black Box Society: The Secret Algorithms Behind Money and Information*. Harvard University Press.
- Phillips, J., Babcock, R. A., & Orbinski J. (2021). The digital response to COVID-19: Exploring the use of digital technology for information collection, dissemination and social control in a global pandemic. *Journal of business continuity & emergency planning*, 14(4), 333-353.
- Rovinskaya, T. L. (2021). The role of new digital technologies in a time of crisis (Pandemic 2019–2021). *World Economy and International Relations*, 65(6), 95-106.
- Shamayu, G. (2020). *Teoriya drona [Drone theory]*. Ad Marginem Press.
- Vasiliev, A. A., Pechatnova, Y. V., & Mamychev, A. Yu. (2020) Digital ecology: Artificial intelligence impact on legal and environmental sphere. *Ukrainian journal of ecology*, 10, 150-154.
- Vorontsov, S. A., Mamychev, A. Yu., Babenko, V. N., Rabets, A. P., & Naskhuliian, O. S. (2019) Artificial intelligence in modern political and legal activities of the society: problems and contradictions of digital transformation. *Dilemas Contemporaneos-Educacion Politica Y Valores*, 7, 130.