Digital Transformation of the Arctic Sustainable Development Law

Oksana I. Sharno[1][1], Yuri A. Bokov[1][2], David R. Blinov[2][3] and Arina Y. Bokova[3][4]
[1]*Volgograd State University (VolSU), Volgograd, Russia*
[2]*Saratov State Law Academy (SSLA), Saratov. Russia*
[3]*Kutafin Moscow State Law University (MSAL), Moscow, Russia*
sharno@volsu.ru, : bokov@volsu.ru, daveblinov@gmail.com, bokovar2021@yandex.ru

Keywords: Sustainable development, Arctic sustainable development law, Arctic zone of The Russian Federaion, ESG, digital transformation, artificial intelligence, telemedicine.

Abstract: In article authors analyze sustainable development, Arctic sustainable development law, its digital transformation, justifies the problems that are solved by ecologization of cross-sectoral factors (environmental, social, economics). It is reflected that a systematic approach to Arctic regulation that combines two areas (environmental development of the Arctic as a natural object and socio-economic development of the Arctic zone as a territorial part of the Arctic), corresponds to content of sustainable development. Research shows the importance of the ecological dominant in the triune essence of sustainable development. With this in mind, the sustainable development of the Arctic is defined as a balance between environmental, economics and social values in favor of future generations. Based on the analysis of specific digital technologies and tools, authors reveal the specifics and features of implementing the Arctic sustainable development law as a result of digital transformation of the legal system, taking into account national specifics of the region.

1 INTRODUCTION

Over the past few years of strategic Arctic development assessment of the current regulatory «Arctic» prescriptions demonstrates the differentiation of legal regulation in two directions:

a) ecological development of the Arctic as a natural object;

b) socio-economic development of the Arctic zone as a territorial part of the Arctic, within which Russia has sovereignty and jurisdiction under international law.

The legal basis for the Arctic development is constituted by: fundamental provisions of the Russian Federation Constitution in terms of nature management, protection and division of power; federal laws on strategic planning, environmental protection, and use of specific environmental components; concepts, strategies, programs for scientific and technological development, sustainable foreign and domestic policy of Russia; decrees of the Russian Federation President establishing territorial regimes, defining national goals and strategic objectives, and other norms of natural resource and environmental significance.

Meanwhile, the current legal regulation of the Arctic development as a natural object is fundamental for the legal support of the socio-economic Arctic zone development, which must be based on strict adherence to environmental requirements for protecting the Arctic as a unique natural object.

Such a systematic approach to regulating the Arctic corresponds to the content and trajectory of sustainable development, which is a development that allows us to meet socio-economic needs with environmental laws. This approach to the sustainable development of the Arctic is embedded in the mechanism of law of sustainable development - the impact on public relations regarding the Arctic exploration. The effectiveness and quality of legal

[1] https://orcid.org/0000-0001-8892-1848
[2] https://orcid.org/0000-0001-6357-9599
[3] https://orcid.org/0009-0008-8866-0850
[4] https://orcid.org/0009-0004-9330-2143

regulation as a process of purposeful impact on public relations regarding sustainable development is verified by establishing the correspondence of the legal system (legal norms, their implementation and legal culture) and the achievement of the Sustainable Development Goals.

At the same time, the assessment of the results of the sustainable development of the Arctic and the Arctic zone reveals problems. The complex climatic and natural conditions of the Arctic, the melting of Arctic glaciers, the large-scale North exploration, the expansion of the Arctic zone with new areas and territories involved in economic turnover through the implementation of the Far Eastern Hectare and Arctic Hectare programs, the launch of new projects accompanied by a negative impact on the Arctic environment, collectively and in relation determined the outlines of economic and social realities that attract attention from the perspective of the environmental agenda. The assessment of legal regulation reforms, which has largely revealed signs of environmental degradation, demonstrates that the spontaneous or isolated development of specific areas (territories reclamation, demography problems, improvement of ecological culture, urban development of territories, use of natural resources, introduction of modern technologies) without the systematization of requirements and goals for sustainable development is inadequate. The multidirectional efforts in the Arctic direction of sustainable development should be eradicated, and the set tasks should be addressed from the perspective of legal systematization and greening of intersectoral factors (environmental, social, economic), coordination of actions in the field of management and control, transition from degradative to rational nature management, and establishing an environmental dominant in ensuring national security, taking into account national interests.

Such actions are justified from the point of view of the sustainable development law, which forms a communication provided by digital means between actors (individuals, institutions, states), in order to realize the values of sustainable development. «The sustainable development law is difficult and complex. It is akin to digital law or network law, as new legal and regulatory regimes. It is the law of global trends and global challenges, formed under the influence of modern phenomena that transform the entire basis. The law of sustainable development is a legal model for the development of sustainable development society» (Mazurina, 2022). Such model, in our opinion, reflecting national (regional) and intersectoral specifics, replacing global trends, is the result of digital transformation.

The sustainable development law is currently able to resolve the chaotic non-systemic regulation of the emerging relations regarding the protection of the Arctic and the development of the Arctic zone. This is the sustainable development law in the context of digital transformation that can ensure the systematization and greening of the legal impact of strategic and climate-relevant areas of social development.

2 METHODOLOGY

The research is based on a scientific method that allowed comparing published scientific knowledge, research results, and current provisions of regulatory legal acts on the sustainable development of the Arctic and the Arctic zone of the Russian Federation in the context of environmental, social and economic development using digital tools. The use of the comparative legal method allowed us to analyze sustainable development, taking into account its multidisciplinary nature, the legislative practices of a number of countries, and to justify the conclusions and results. The formal legal method aimed at researching the conceptual and categorical apparatus. In particular, it was used to reveal the concepts of sustainable development, sustainable development law, digital transformation, telemedicine, and other categories of research significance. The method of classification made it possible to distinguish between different types of digital technologies used for sustainable development by defining their similarities and differences. The dialectical-materialistic method predestined justification of the digital transformation of the Arctic as a natural object and the Arctic zone as a territory which socio-economic development should be maintained by ecological way. Application of the comparative analysis technique and the system-structural method has made it possible to generalize scientific and technical knowledge about digital transformation of the Arctic sustainable development law. Extrapolation of methods, approaches and concepts from one area to another was used to identify the features of sustainable development in the process of digital transformation of the Russian Federation Arctic zone. Description method was used by the authors to introduce a general overview of the research topic being considered in order to create an overall picture of the condition of digital and sustainable development of the Arctic. Synthesis method was also used for shaping the conclusions of

research. Use of modelling method was aimed at demonstration the evolving character of digital transformation and sustainable development of the Arctic due to the lack of digital reforms results as of this writing.

3 RESULTS

The meaning of the term «sustainable development» since 1987, when it was announced in the report World Commission on Environment and Development 1987 (The Brundtland Commission) practically haven't been changed. Sustainable development is a set of measures aimed at meeting current human needs while preserving nature and harmonizing it with the technosphere and resources, taking into account the rights of future generations. Such an interpretation, in our opinion, demonstrates the triune essence of the sustainable development law.

The sustainable development law reflects the latest trends of legal regulation in the modern world, which were formed in the XXI century under the slogan of achieving «sustainable development» in its various dimensions (environmental, social, economic) (Kaskin, 2024). Terminological analysis of the concept of «sustainable development» makes it possible to distinguish three components of development: economics, social and environment. They correspond to three types of efficiency: ecological, expressed by the interaction of human, society, and nature; economic, consisting in the «human-production» projection; and social, reflecting the relationship between human, state, and society. Hence, sustainable development is a balance between environmental, economic and humanitarian values. The balance conceptualization of such a balance has a number of specific features. «It is about the interaction between economic and social needs, on the one hand, and environmental constraints, on the other hand» (Dovganj, Konnova, 2018) taking into account regional (national) characteristics. Despite the fact that the concept of sustainable development was originally conceived within the framework of international environmental law, it has subsequently undergone a transformation taking into account national-political, geographical, spatial, socio-economic, and other factors. Therefore, at the present time, we should talk about the features of sustainable development, which is built and implemented taking into account national characteristics and preferences, based on a meaningful triad of value orientations (ecological, socio – economic).

We can find concrete proofs of this by analyzing the relevant strategic, programmatic and conceptual documents of a number of countries directly related to the sustainable development of the Arctic, together with states that demonstrate an increase in activity in the Arctic region, in particular within the framework of various areas of cooperation. Therefore, Russian Federation Concept Transition to sustainable development the cooperation is defined as a balanced solution of socio-economic problems, problems of preserving a favourable environment and natural resource potential in order to meet the needs of present and future generations. Canada implements the normative principle of prioritizing the effective use of natural, social and economic resources and defined sustainable development as «development that meets the interests of the present, but does not hinder the meeting of the needs of future generations» (Saharov, Andronova 2020). Danish legislation establishes a link between current environmental policies and the results of sustainability indices (Solovyeva, Tveryanishvili, 2020). The sustainable development of the Arctic region from the point of view of economic, social and environmental interaction is also regulated by US strategic documents. It focuses on the climate crisis and investments in sustainable development to improve the quality of life of the indigenous peoples of Alaska and the Arctic. The Republic of Belarus, within the framework of sustainable development, provides for sustainable development as a globally managed evolution of the entire world community in order to preserve the biosphere and the existence of humanity, as well as its continuous development. This position is being a basis for involving Belarusian partners in the development of the Arctic. The Republic of Tajikistan positions sustainable development on the basis of three interrelated dimensions that characterize economic growth, social justice and environmental protection. Tajikistan's interest in developing the Arctic is to gain new knowledge about hydrometeorological and geophysical processes in the mountainous and high-altitude regions of the country, since the Pamir natural conditions are similar to those of the Arctic and the Antarctic. The 2030 Agenda for Sustainable Development of the Republic of Kazakhstan demonstrates a similar interpretation and understanding of sustainable development, including that aimed at achieving the goals of the Ten-Year Strategy of Action for the Transition to Rational Consumption and Production Models. At the same time, cooperation Russian Federation with

Uzbekistan for sustainable development is important in terms of ensuring research on the conservation of Arctic biodiversity (Uzbekistan has a fairly «strong biological scientific school», which was created in the Soviet era and still retains significant connection with Russia).

Attention to the Arctic in terms of sustainable development is not accidental. Achieving the States and World Sustainable Development Goals is impossible without the development of the Arctic zone. Problems of sustainable development are most clearly manifested in the Arctic. The Arctic territory, due to the declared melting of glaciers, is now becoming a tidbit-test tool for assessing the achievements and shortcomings of sustainable development in general for countries, which is reflected in the assessment of temperature indicators and the establishment of appropriate projections of the presence or absence of positive trends in sustainable development. Economic, social and environmental development, along with environmental protection, are interrelated and are the subject of attention when solving the problems of sustainable development of the Arctic zone of the Russian Federation in order to protect the Arctic as a natural object of nature. Decree of President of Russian Federation «On National Goals and Strategic Objectives for the Development of the Russian Federation Russian Federation for the period up to 2024», Federal programs («Environmental protection», «Scientific and Technological development of the Russian Federation», « Reproduction and use of Natural Resources», etc.), in fact, are aimed at achieving the SDGs. however, much remains to be done in terms of critical analysis of the provisions of the Arctic Council's Sustainable Development Program, the Sustainable Development Framework Document, from the perspective of taking into account national preferences for sustainable development of the Arctic within the borders of Russian jurisdiction. This is due to the solution of such problems as:

a) health and financial well-being of people living in the Arctic, including indigenous peoples;

b) environmental well-being, educational and cultural heritage for sustainable development and capacity-building;

c) sustainable nature resource management and conservation;

d) infrastructure development in accordance with harmonizing the technosphere and nature.

In our opinion, digital transformation means the process of legal regulation and solving tasks provided by digital tools. Digital transformation is a fundamental concept in the modern world, encompassing changes in business models, organizational structures, corporate culture and operational processes, due to the large-scale introduction of digital technologies and data analysis. Based on this understanding, a set of Arctic issues needs to be addressed through digital transformation for sustainable development, which becomes a promising and effective tool for environmental, social and economic development in the Arctic, including the Arctic zone. This reflects national (regional) and intersectoral specifics.

Digital transformation of the Arctic sustainable development law in modern Russia is the process of implementing the law to Arctic sustainable development by digital means and technologies, which became widespread in Russian Federation. This approach is due to the fact that «sustainable development as a socio-economic and environmental concept, based on which priority areas are identified and areas of cooperation outlined, has its own specific features in the «Arctic version»: the need for information support, data compilation and information sharing are emphasized» (Dudydkina, 2017).

Currently, we can identify a number of effective digital technologies those are providing the digital transformation of Arctic sustainable development law in the Russian Federation.

For research purposes, we denote the following:

At first, the list of technologies and tools for digital transformation and sustainable development of the Arctic that we are considering is not exhaustive, because the area we are studying is still under development and it is currently impossible to draw final conclusions about the set of relevant digital tools used.

At second, we present only those digital tools that are relevant for the implementation of the Arctic sustainable development law in its triune understanding of combined environmental, social and economic development.

In connection with the aggravation of the global environmental situation, the technology of monitoring and assessing the environmental impact is becoming widely used for the ecological development of the Arctic. For example, thanks to monitoring, it became known that in the Russian part of the Arctic (Gornov, 2024) in The Franz Josef Land in The Arctic Ocean Mesyatseva Island, which was formed from the samely named peninsula because of the melting of the glacier on Eva-Liv Island before 1995, was disappeared. In 2015 its area was fifty-three hectares, in August 2024 it was reduced to three

hectares, but now it has completely disappeared, according to official figures of The Russian Geographical Society. The rates of warming of the Earth and the state of permafrost are researching within the framework of monitoring. Monitoring, in turn, relies on the use of spatial data, the volume of accumulation of which requires the creation of integration nodes for information resources. Monitoring, in turn, relies on the use of spatial data, the volume of accumulation of which sets the task of creating integration nodes for information resources (or example, on the basis of the Arctic Infocommunication Cluster created by the St. Petersburg Arctic Public Academy of Sciences).

In accordance with the Strategy for the Development of the Arctic Zone of the Russian Federation and Ensuring National Security for the period up to 2020:

- in order to improve the state management of socio-economic development of the Arctic zone of the Russian Federation and as an indicator of violations, provide for systems: monitoring of the geophysical situation in the Russian Arctic zone, communications and navigation (using GPS/GLONASS) to enable functioning of transit and transpolar routes, minimizing the impact of extreme geophysical processes (natural and artificial origin) on the human environment;

- in order to improve the quality of life of the population, including indigenous peoples, it is envisaged to enable access of the population of the Russian Arctic zone to modern information and telecommunications services, information and communication technologies, including to ensure the quality of medical care.

For the purpose of sustainable development of the Arctic and the Arctic zone, artificial intelligence is being introduced. Artificial intelligence means a set of technological solutions that allows simulating human cognitive functions (including finding solutions without a predefined algorithm) and obtaining results comparable to, or superior, to the results of human intellectual activity in performing specific tasks. Artificial intelligence is a complex of information technologies that make it possible to perform tasks comparable to those solved at human-like intelligence level (Minbaleev, 2022). Artificial intelligence, as a technology, allows you to program or train a device or software for: a) perception of the environment using data; b) data interpretation using automated processing that simulates cognitive abilities; c) making recommendations, forecasts, or decisions to achieve a specific goal. The spread of artificial intelligence for Arctic sustainable development is observed within the framework of optimization of the development of deposits in order to systematize, cataloguing, analyse, and highlight necessary research results. Artificial intelligence is used in monitoring and tracking violations of environmental legislation and threats due to the fact that it can identify patterns, calculate results and generate ideas, summarize audio, photo, video, text data, binary code, which can be effective in solving certain contentious issues. For example, artificial intelligence is actively used in biometric recognition of individual objects. Participants and experts actively discussed the use of neural networks in environmental protection at the Statewide Ecological Forum «Ecosystem. Reserved area», held on the Kamchatka Peninsula, Russian Federation, from 19.08.2024 to 26.08.2024. For example, they talked about neural networks developed on the basis of Yandex DataSphere, which collect more than fourty thousand images over a certain period of time from «camera traps» installed in the Saylyugemsky National Park. Artificial intelligence processes the received data, filters out materials of poor quality, identifies snow leopards by comparing with images placed on the available database about this type of animal, calculates the population and generates reporting information. Such a huge amount of information would be processed and reduced to a single result by a person after weeks of long-term work while the neural network performs these tasks in a few minutes. This technology is often used while monitoring the population of separate fish species in various reservoirs, which is even more difficult.

As we can see, there is a digital transformation of the sustainable development law: as environmental (development of the Arctic as a natural object) and as socio-economic (development of the Arctic zone as an explored territory). We are talking about providing digital means of law (legal model) for the Arctic sustainable development, which legally establishes «environmental, social and governance» criteria for the effectiveness of sustainable development (ESG criteria). ESG criteria being widespread in the business sphere, became indicators of the quality of sustainable development in relation to public-private partnership and «socially responsible investing» in «Arctic» meaning (Lviv, 2019; Sharno, 2022).

Consequently, the use of digital tools for the socio-economic development of the Arctic zone of the Russian Federation at the same time ensures the Arctic environmental development, that might be seen in the examples of the use of telemedicine technologies.

With the help of telemedicine, that been understood as videoconferencing solution based on the use of NBIC-convergence and nature-like technologies, including artificial intelligence, the costs of both state and local medical systems are objectively reduced, the quality of medical care and life of the population is ensured, and demographic problems are resolved, especially in remote areas. For example, in the Nenets Autonomous Okrug in 2020 there were 17 medical organizations in the district those been connected to the telemedicine network, and about a third of consultations were conducted for residents of hard-to-reach settlements (Gubina, 2020). In 2022, Rosrybolovstvo conducted a series of experiments to help fishermen on ships using mobile complexes «System of remote telemedicine consultations». As part of telemedicine, it became possible to monitor the condition of employees in the oil fields (special gadgets are introduced in oil fields that read ECG data and temperature. Then results are sent to the doctor on duty). Telemedicine today, as one of the system-forming structural elements of the «Smart Arctic City» digital system, is being developed within the framework of the «road map» developed in accordance with the action plan approved by the Ministry of Health of the Russian Federation, providing for an increase in the number of tele-consultations conducted on the territory of the «Arctic» regions of Russia by 2024, the provision of «digital» medical care on board ships in the waters of the Northern Sea Route on ships provided with the work of FMBA doctors.

The implementation of telemedicine technologies is also aimed at solving problems with the treatment of the nomadic population of indigenous peoples, including with the use of artificial intelligence (Khimina, Zelenina, Khimin, Fedkushova, 2023), that also minimizes the cost of sanitary aviation, which is quite large for both the state budget and the population's expenses. In this way, socio-economic and environmental problems are solved in one time: telemedicine helps to solve health problems in remote and hard-to-reach places in the Arctic, which protects nature and wildlife, for example, from the negative impact of land, water, air transport.

At the same time, the digital transformation of the Arctic demonstrates the urgency of problems of lack of high-speed Internet in many areas of sustainable development. Work on fiber-optic cabling and radio-relay communication lining that provide the Arctic zone of the Russian Federation with mobile communications continues today. Problems with their implementation are explained by the inaccessibility of the region, the severity of climatic conditions and the lack of a wide number of customers.

4 CONCLUSION

The above suggests that the Arctic sustainable development law, as a legal model replaced global trends, is the result of digital transformation, forming communication in the field of sustainable development, that provided by digital means within national specifics.

According to the federal statistical observation data from the section «Information on the use of digital technologies and the production of related goods and services», the costs of implementing and using digital technologies in the Arctic zone of the Russian Federation for the period from 2022 to 2023 has increased from 53.2 billion up to 54.7 billion rubles. We see it as a positive. However, the digital transformation of the Arctic should not create obstacles to the implementation of the sustainable development law.

We should not forget about the negative impact of informatization on the Arctic environment due to impact of electromagnetic fields and radiation, formation of electronic waste containing toxic components and other factors. When implementing digital technologies, it is necessary to take into account the lowest level of negative impact on the environment, compliance with other environmental indicators provided for in international agreements, the economic and environmental efficiency of implementing a number of digital tools using resource-saving and energy-saving methods, and also take into account the period of their implementation. Compliance with these requirements will ensure that the negative effects of digital transformation on Arctic nature conservation are minimized.

Moreover, it is need to be considered that digital transformation can affect the rights of indigenous people, whose life and crafts can change significantly under the influence of digital technologies, up to complete disappearance of the population. This mustn't be allowed, despite the positive trends in the development of «digital citizenship» (Bokov, Abezin, 2020).

Features of environmental protection of the Arctic, extreme natural and climatic conditions, sensitivity of ecological systems to external influences, vulnerability of places and living conditions of indigenous peoples determine the socio-economic development of the Arctic zone, taking into account: population density, transport and social

infrastructure, the economy's focus on the extraction of natural resources, risks to economic activity and the environment.

Under such circumstances, digital transformation should focus more on improving the efficiency of governance, implementation of control, supervision and socio-economic development taking into account environmental factors. Digitalization is important for updating climate change assessment and information exchange. Research stations from different countries (Russia, Canada, and the United States) and the data they provide should be researched comprehensively, without exceptions, in accordance to fact that all states involved in Arctic research should ensure unhindered and mutually dependent exchange of information on achieving the sustainable development Goals of the Arctic region in framework of identifying the most important data on climate change in the Arctic, what affects overall sustainable development of the Earth and states, regardless of their location. The main tools for achieving a sustainable balance are also «digitized» spatial development strategies for Russia, namely, medium and small cities, rural areas of the Far East and the Arctic, located in the main settlements of the Arctic zone of Russia, including as part of a number of agglomerations. This solves the issues of achieving life quality of all Russian citizens, regardless of their place of residence (including hard-to-reach areas of Russia).

Therefore, in order to achieve positive trends in digital transformation, it is necessary to achieve a balance between the socio-economic development of the Arctic zone and the preservation of biological diversity, environmental security of the Arctic. As well known, progress in one area inevitably leads to regression in another, what can be traced in the current problematic issues of the Arctic sustainable development. In this term it is important to remember that it is the environmental development of the Arctic, in addition to economic and social development, that today acts as a trigger for the implementation of the sustainable development law in the context of digital transformation, which can provide systematization and ecologization of the legal impact on the strategic and climatic spheres of social development.

ACKNOWLEDGMENTS

The study is financially supported by the Russian Science Foundation, project № 23-78-10175, https://rscf.ru/project/23-78-10175/.

REFERENCE

Mazurina, M., 2022. The Law of Sustainable Development: Essence, Subject and Methodology. *Lex russica*. 75-5: 117-126.

Kaskin, S., 2024. *The book* European law of sustainable development in a global comparison: main concepts, sources, projects. 160p.

Dovganj, E., Konnova, E., 2018. *The book* International environmental law. Minsk:311 p.

Decree of Russian Federation President dated 01.04.1996 № 440 «On the adoption of the concept for the transition of the Russian Federation to sustainable development».

Saharov, A., Andronova I., 2020. Sustainable development of the Arctic territories of Canada: goals and results. *Bulletin of international organizations*. 15-4:142.

Solovyeva, A., Tveryanishvili, I., 2020. Environmental issues in the framework of sustainable development policy of Denmark. *International Journal*. 3-13:24-25.

National Strategy for the Artic region. 2022. URl: https://www.whitehouse.gov/wp-content/uploads/2022/10/National-Strategy-for-the-Arctic-Region.pdf

Arctic Strategy. Department of Defense. November 2013. URl: https://dod.defense.gov/Portals/1/Documents/pubs/2013_Arctic_Strategy.pdf

Minutes of the meeting of the Bureau of the Council of Ministers of the Republic of Belarus 02/05/2017 № 10. URL: https://stat.gov.kz/ru/sustainable-development-goals/goal/

Order of the Government of the Republic of Tajikistan dated 01.10.2007 № 500 «The Concept for the transition of the Republic of Tajikistan to sustainable development» URL: https://policy.asiapacificenergy.org/sites/default/files/Concept%20of%20Transition%20of%20the%20Republic%20of%20Tajikistan%20to%20Sustainable%20Development%20%28RU%29.pdf

Order of the RF Government dated 15.04.2014 № 326 «On the approval of the state program of the Russian Federation».

Order of the RF Government dated 29.03.2019 № 377 «On the approval of the state program of the Russian Federation».

Order of the RF Government dated 15.04.2014 № 322 «On the approval of the state program of the Russian Federation Reproduction and use of natural resources».

Sustainable Development Framework Document. URL: https://oaarchive.arctic-council.org/handle/11374/1657 (accessed date: 18.03.2017).

Dudydkina, I., 2017. International legal content of the concept of sustainable development (analysis of foreign doctrines). *Moscow journal of international law*. 2 - 106: 144-153.

Activities for the conservation of the environment of the Arctic zone of the Russian Federation. URL: https://2019.ecology-gosdoklad.ru/report/14/53/

Gornov, A. 2024. In the Arctic, the island of Menetsev has disappeared in the archipelago Land of Franz Josef URL: https://rgo.ru/activity/redaction/news/42-10-24/

Decree of Russian Federation President dated 10.10.2019 № 490 «On the development of artificial intelligence in the Russian Federation »

Minbaleev, A., 2022. Concept «Artificial intelligence» in law. *Bulletin of the Udmurt University. Series «Economy and law»*. 32-6:1094-1099

Artificial Intelligence (Regulation) Bill [HL] Ordered to be Printed, 22nd November 2023/ Published by the authority of the house of lords. URL: https://bills.parliament.uk/publications/53068/documents/4031

Lviv, N., 2019. Responsible investments: theory, practice, prospects for the Russian Federation. *Scientific journal NIU ITMO. Series «Economics and environmental management»*. 3:56-67

Sharno, O., 2022. Environmental responsibility of business as a criterion for ESG and sustainable development. *Legal Concept*. Vol.21;3: 29-37.

Gubina, O., 2020. Formation of telemedicine system as innovative factor of development of the Arctic territories of the Russian Federation. *Regional problems of economic transformation*. 5-115. P. 39-47.

Order of the Ministry of Health of the Russian Federation dated 23.03.2022. № 195 «On the approval of the plan of activities («road map») for the development of telemedicine and mobile forms of medical assistance, including on the itineraries of nomadic indigenous peoples of the Russian Federation in the Arctic zone»

Khimina, L., Zelenina, L., Khimin, E., Fedkushova, S., 2023. Artificial intelligence in the health system of Arctic regions of the Russian Federation. *Arctic and Northern*; 52. P. 232-245.

The Russian Federation's Arctic zone socio-economic development calendar for 2024. URL: https://rosstat.gov.ru/storage/mediabank/calendar1_2024.htm

Bokov, Y., Abezin, D. A., 2020. Digital citizenship: Implementation in the modern world. *Lecture Notes in Networks and Systems*. Vol. 110:442-448.

Decree of Russian Federation President dated 26.10.2020 № 645 «On the Strategy for the development of the Arctic Zone of the Russian Federation and ensuring national security up to 2035»

Order of the Russian Federation Government dated 28.11.2023 № 3377-p «The list of Arctic Team Sites must be approved»