



INTEGRATION OF THE DIGITAL ECONOMY AND ARTIFICIAL INTELLIGENCE IN THE LEGAL SUPPORT OF ENVIRONMENTAL SAFETY

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Annotation: In the sphere of legal provision of environmental safety in the context of climate change. In the sphere of legal provision of environmental safety, the integration of the digital economy and artificial intelligence is of great importance, and a number of positive works are being carried out. The article analyzes the legal nature and current state of legal regulation of the integration of the digital economy and artificial intelligence in the legal support of environmental safety. The article also clearly indicates the need for cooperation between humans and artificial intelligence in the context of today's climate change and several reasons for ensuring environmental safety. The article also pays special attention to the relevance of the issue of using artificial intelligence in environmental education and its improvement.

Keywords: environmental security, sustainable digital economy, climate change, artificial intelligence, environmental efficiency, environmental assessment, environmental norms, environmental values, environmental negative consequences.

Today, there is not a single country on the planet that is completely free from the threats of environmental problems and the negative impact of climate change. Environmental threats that do not know borders have a negative impact on the sustainable development of countries, the well-being of people, and the quality of life, disrupting the natural balance.

Taking into account the relevance of this problem, the President of the Republic of Uzbekistan Shavkat Mirziyoyev proposed to declare 2025 the **"Year of Environmental Protection and Green Economy"** in Uzbekistan.

The attendees and deputies fully supported this initiative, and it was determined that the government will develop a state program for the most important tasks outlined in the name of the year. It was emphasized that such issues as the introduction of "green" technologies, water conservation, a sharp increase in green areas, mitigation of the consequences of the Aral Sea disaster, solving the problem of waste, and most importantly, strengthening public health should be prioritized in this program.

In order to accelerate the development of the digital industry in our country in 2020-2030, increase the competitiveness of sectors of the national economy, and ensure environmental safety, the Strategy of the Republic of Uzbekistan "Digital Uzbekistan-2030" No. PF-6079 was adopted on October 5, 2020.

The Strategy covers the directions of organizing and improving the quality of goods and services produced in the digital economy using modern digital technologies, developing social knowledge in the Republic of Uzbekistan by establishing digital environmental literacy, improving the well-being and quality of life of the country's population, as well as improving the quality and effectiveness of public services for the population, and effectively ensuring the country's internal and external environmental security.

Also, the Resolution of the President of the Republic of Uzbekistan dated October 14, 2024 No. PP-358 "On Approving the Strategy for the Development of Artificial Intelligence

Technologies until 2030" was adopted. According to this resolution, the Strategy for the Development of Artificial Intelligence Technologies until 2030 was developed in accordance with the Decree of the President of the Republic of Uzbekistan dated August 30, 2024 No. UP-132 "On Measures to Implement the Tasks Defined in the Fourth Open Dialogue of the President of the Republic of Uzbekistan with Entrepreneurs" in order to create the necessary conditions for the introduction of artificial intelligence technologies in the social sphere and sectors of the economy, including the establishment of legal, technological, and economic foundations.

As indicated in this resolution, **artificial intelligence** is defined as a set of technological solutions that allow for the imitation of human knowledge and skills (including independent learning and searching for solutions) and the achievement of results comparable to the results of human mental activity when performing specific tasks.

According to foreign specialists in the field R. Evangelista, P. Guerrieri, V. Meliciani, **the digital economy** is a part of the economy directly based on computer technologies, a global network of economic and social activity carried out through information and communication technologies, such as the Internet, mobile and touch networks [4].

According to M.L. Kaluzhsky's interpretation, **digital economy**-economic internet activity, as well as its forms, methods, tools and implementation is a communication environment [5].

artificial intelligence began in the middle of the last century. The English mathematician and cryptographer Alan Turing (1912-1954) is considered the author of the first research in this area. In particular, the original term, the English "Artificial intelligence" (Russian "Искусственный интеллект"), is translated into Uzbek as "sun'iy ong," "idrok," "tafakkur," "miya," "aql." However, if we look at the explanatory dictionary of the Uzbek language, we can see that although these words are close and similar in meaning, they differ from each other. In our view, it is the term "**artificial intelligence**" that can fully reflect all the meanings assigned to it. From this point of view, the terms "artificial intelligence" and "artificial consciousness" represent two separate concepts. Currently, various reasons are cited for the introduction of artificial intelligence in the field of ensuring environmental safety, of which **three** are the main ones.

First, high-efficiency computing resources at affordable prices in the environmental and agricultural sectors. **The second** is the availability of a large amount of information for environmental legal education. For the artificial intelligence product to perform accurate forecasts, it must process large volumes of data. This factor can lead to the creation of various tools for ensuring environmental safety, in particular, simple and inexpensive tools for storing and processing environmental data, various algorithms. **Third**, artificial intelligence products strengthen environmental competitiveness. It can offer many tools suitable for the **green economy** to reduce costs and risks for companies, expand access to the market, and other beneficial factors. As a result, companies that have implemented artificial intelligence will be much more competitive. However, as in all spheres, there are a number of difficulties in implementing this type of innovation. In particular, the shortage of qualified personnel and the lack of data for its implementation. The more environmental data, the higher the accuracy of artificial intelligence forecasts.

In this sense, it should be noted that under the conditions of climate change, a developed economy allows for the preservation of the environment, the stability of the Earth's ecosystem, the transition to a "green" economy, as well as the restoration of disturbed areas in this area, for example, tracking green "big data," including online screening of the entire range of profile indicators. The concept of "green economy" does not replace the concept of sustainable development, achieving stability depends on the creation of a practically efficient economy, and, in our opinion, it is necessary to combine the issues of the impact of the digital economy on the environment.

The digital economy is changing a person's relationship with the environment, and to solve environmental problems, the concept of a **"stable digital economy"** is proposed for the benefit of the economy, the environment, and society. The potential for synergy between digital economy and green economy strategies is recognized in developed countries. Traditionally, environmental policy and strategy are considered separately from the policy of economic and social development. In recent years, the prospects for sustainable development and environmental problems have become more widespread, and attention is being paid to the widespread use of the digital economy[6].

According to a study conducted in France in 2019 and published by the International Forum on Climate and Climate (IWF) [7], only 40 percent of participants acknowledged a close link between digital and climate change. It turns out that these are mainly small items that currently consume the most energy: smartphones, tablets, computers, and scientific research has confirmed that the digital sector also helps to identify several types of pollution.

It should be noted that all measures for the digitalization of the economy, as well as the issue of environmental safety, taking into account the strategy proposed above, are still at an early stage. The idea of reasonable limits of violations by economic entities and society as a whole serves as the basis for the development of experimental design and research work in the information system of environmental and economic security. The two components - digital technologies and environmental sustainability - should complement and strengthen each other as mutually reinforcing components. The integration of digitalization and industrial production must strategically align with the interests of society, environmental safety, and ecosystem stability.

Currently, Uzbekistan is actively investing in the digital sector of the economy. Today, the most serious problems facing digitalization in the field of ecology are large financial costs for training specialized personnel and maintaining digital technologies. Therefore, there is a need for effective state support for the development of infrastructure that ensures technogenic environmental safety and guarantees a single information space for the effective use of various services.

It should be noted that artificial intelligence, like all spheres of life, plays an important role in ensuring environmental safety. Additionally, artificial intelligence **"smart"** domestic system, autonomous system vehicles in transport sector, development of agriculture in agriculture, rational water use, serves to find solutions to global environmental problems. It is used to analyze big data, develop tools for effective and distance learning in the field of banking, education, and environmental safety, as well as to solve issues of data processing, modeling, and forecasting in scientific research.

Today, the ethics of artificial intelligence has also become one of the pressing issues in the legal support of environmental security. In this regard, there is a need to take into account such basic principles as openness, confidentiality, security, equality, responsibility, and human control in the development and application of artificial intelligence technologies. In the process of rapid development, artificial intelligence, like the internet, ensuring environmental safety, and information technologies, is becoming an integral part of our lives. Today, there are several reasons for the need for cooperation between humans and artificial intelligence and ensuring environmental safety:

The first, in order to increase environmental efficiency and productivity in the work process, artificial intelligence can automate many regular tasks. This will allow people to devote more time to creative and strategic tasks. For example, artificial intelligence can be used in warehouses for the environmental classification of goods and for the environmental assessment of product quality in production.

Second - improving the quality of decisions on the legal provision of environmental safety. Artificial intelligence processes large amounts of data. It can also identify interconnectedness and hidden patterns that people are unaware of. This will allow making

decisions on the legal provision of environmental safety based on the analysis of more data. For example, artificial intelligence can be used to forecast the demand for environmentally friendly products and optimize delivery routes. This will help make effective decisions that will lead to improved quality of the environmentally friendly product or service.

Third, increasing safety and reliability in the field of ecology and environmental protection. Artificial intelligence can be used to monitor systems and identify emerging environmental problems. This will help prevent accidents, ecological crises, environmental threats, and other situations. For example, solutions based on artificial intelligence contribute to the prevention of environmental pollution. As cooperation between humans and artificial intelligence develops, important issues of ensuring moral and environmental security arise. In particular, it is necessary to develop effective methods for ensuring the transparency and traceability of environmental decisions using artificial intelligence. This artificial intelligence is important in ensuring that society acts in accordance with environmental norms and ecological values, does not lead to negative environmental consequences, and minimizes risks in the field of legal environmental security.

The general principle of AI policy should be based on a humanistic approach to human environmental rights. Cooperation between people and technology should continue in everyday life, education, and work, but artificial intelligence must be subordinate to humanity, serve it, and expand its capabilities. Today, work is being carried out in our country aimed at developing an artificial intelligence **ethics code**, developing recommendations for its effective use in education and research based on ethical principles.

The issue of using artificial intelligence in environmental education has been widely discussed in recent years. For this, first of all, it is necessary to determine the purpose of applying technologies. The goal should be to improve the educational process and provide every student with the opportunity to realize their potential. For example, UNESCO has identified the fair and inclusive use of artificial intelligence, the improvement of the environmental education process and the acquisition of environmental knowledge, the development of modern skills, and ensuring transparency and control over the use of environmental and legal education data as strategic educational goals this year.

As can be seen, artificial intelligence helps researchers to quickly and effectively analyze data and identify important aspects. In fields such as bioinformatics, it can detect complex cues in data that were previously inaccessible. Through it, it is possible to conduct thousands of experiments on the legal provision of environmental safety in a virtual format. This will reduce the time and resources required for physical performance. It assists in analyzing and forecasting climate change using a set of data on weather, ecology, and the environment.

In general, artificial intelligence is a rapidly developing field with the potential to revolutionize many spheres and areas of our lives, and today, in order to further increase achievements in this area, the main attention is paid to the development of new technologies and methods of artificial intelligence, improving the efficiency of existing ones, and further increasing their accessibility.

In short, by solving problems related to the legal support of environmental security and ensuring its use for the better, we can fully utilize the advantages of this process. Therefore, it is advisable to invest in the development of artificial intelligence technologies and their widespread practical application in the legal framework for ensuring environmental safety.

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