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## On Some Legal Approaches to Digitalization in the Context of Sustainable Development

В настоящее время цифровые технологии становятся неотъемлемой частью устойчивого развития, обеспечивая эффективное использование ресурсов, оптимизацию процессов и создание инновационных решений. В условиях цифровизации перед правом возникают как новые возможности, так серьезные правовые вопросы, касающиеся И защиты данных, кибербезопасности, интеллектуальной собственности и доступа к информации. В работе предприняты попытки выявить правовые аспекты цифровизации для дальнейшего этического и ответственного внедрения и использования цифровых технологий, что будет способствовать достижению целей устойчивого развития на глобальном и местном уровнях.

*Ключевые слова:* цифровизация, устойчивое развитие, государственноправовая сфера, перспективные правовые вопросы, правовое регулирование цифровизации.

Currently, digital technologies are becoming an integral part of sustainable development, facilitating the efficient use of resources, process optimization, and the creation of innovative solutions. In the context of digitalization, new opportunities as well as serious legal issues arise, concerning data protection, cybersecurity, intellectual property, and access to information. This work attempts to identify the legal aspects of digitalization for the ethical and responsible implementation and use of digital technologies, which will contribute to achieving sustainable development goals at both global and local levels.

*Keywords:* digitalization, sustainable development, public-legal sphere, emerging legal issues, legal regulation of digitalization.



Hozirgi kunda raqamli texnologiyalar barqaror rivojlanishning ajralmas gismiga aylanmoqda, resurslardan samarali foydalanish, jarayonlarni optimallashtirish va innovatsion yechimlar yaratishni ta'minlaydi. Raqamlashtirish yangi imkoniyatlar bilan birga, ma'lumotlarni himoya kiberxavfsizlik, intellektual mulk va axborotga kirish kabi jiddiy huquqiy masalalar yuzaga keladi. Ushbu ish raqamlashtirishning huquqiy jihatlarini aniqlashga harakat qiladi va bu raqamli texnologiyalarni axloqiy hamda mas'uliyatli amalga oshirish va foydalanishni ta'minlaydi. Natijada global va mahalliy darajalarda barqaror rivojlanish maqsadlariga erishishga yordam beradi.

*Kalit soʻzlar:* raqamlashtirish, barqaror rivojlanish, davlat-huquqiy soha, kelajakdagi huquqiy masalalar, raqamlashtirishni huquqiy tartibga solish.

Firstly, it is important to acknowledge that the initiative to accelerate digitalization processes in Uzbekistan stems from President Shavkat Mirziyoyev. The President has consistently emphasized that a well-defined state policy regarding the implementation of digital technologies will yield significant results. Projects such as the "Digital Geoportal," the digital platform for the housing and utilities sector, and the "Public Control" system are set to facilitate extensive digitalization and integration of various business processes and essential services for the population. Specifically, the digitalization of services and functions within the ministries of education, health, internal affairs, justice, as well as the cadastral agency and the technical regulation agency, aims to address the issues that citizens face, thereby leveraging the potential of digital technologies.

In his remarks at various meetings, President Mirziyoyev consistently highlights key challenges identified by experts concerning the impact of digitalization and artificial intelligence [1] on the realization of the concept of the Third Renaissance and New Uzbekistan.

The sustainable development of the country serves as a call to action for society to bridge the digital divide affecting people's well-being, ensuring equal access to resources. At the international level, it is noted that digital policy encompasses three components:



- obligations for all legal entities participating in digitalization;
- the leadership and priority of the information and communication technologies (ICT) sector;
- engagement of key stakeholder groups, including investors, public institutions, and academia.

States recognize that efforts to eradicate poverty must coincide with initiatives aimed at enhancing economic growth, while addressing various issues related to the legal framework of digitalization and its subsequent impact on achieving the Sustainable Development Goals (SDGs) [2].

Digitalization involves integrating modern information technologies into advanced management concepts, transforming public service delivery, redefining labor division, modernizing management practices, and better integrating internal and external governmental resources. This process enhances administrative efficiency and effectiveness while improving the overall welfare of society.

Digitalization in the public legal sphere involves the utilization of information and communication technologies, network technologies, and office automation tools to reform traditional public administration and services, primarily to address the needs of citizens in the digital age.

Algorithm-based decision-making has emerged as a fundamental technology within the digitalization of the state legal sphere. However, the complexity and technological dependence of these digital decision-making systems introduce several risks, including the potential leakage of confidential information, errors in decision-making, and reputational risks. Public authorities must navigate an uncertain decision-making environment. Such digital risks can lead to a crisis of public confidence in the decision-making process, which may impede the advancement of digitalization in the public legal sphere.

Despite these challenges, digitalization enhances the dynamism and transparency of public administration, thereby strengthening the managerial and service functions of the state. It helps eliminate bureaucracy and combat corruption [3]. Today, technologies such as big data, cloud computing, and the Internet of Things are yielding significant results across various sectors.



In the implementation of digital government, particular emphasis is placed on the transparency of information regarding the activities of public authorities, as established by the law of the Republic of Uzbekistan "On Openness of the Activities of Public Authorities and Management" [4]. This law outlines the rights of individuals and legal entities to access and disseminate accurate information about public bodies and organizations. Consequently, all legislation that is not restricted due to classifications of various types of secrets is published in official publications and made available on the official websites of public authorities and administrations. This effectively safeguards the public's right to be informed about government actions.

In contemporary society, the political, social, and economic institutions cannot be envisioned without the influence of digital reality, which is increasingly finding diverse applications. As a defining characteristic of a post-industrial society—marked by the growing significance of information in public relations—digitalization permeates various sectors of society and is increasingly recognized as a crucial phenomenon today.

In the legal sphere, there are ongoing attempts to address the widespread use of advanced technologies through existing legal frameworks, aiming to regulate emerging or established relationships and technical innovations. However, the forecasting of risks and challenges associated with digitalization in a society characterized by advanced technologies lacks adequate scientific justification in the legislative formation process.

Typically, such studies have a general (philosophical), theoretical-legal or interdisciplinary nature, discussion about the legal personality, rights and freedoms of robots, need for alternative regulators for relations between people and artificial intelligence, the displacement of people by machines from the labor market and the artificial immersion of most of the population into virtual reality, replacing social life.

The problematic field of digitalization from the perspective of legal science can be viewed in the following ways:

- general social problems;
- special legal problems [5].



In this context, digitalization is a broad term encompassing the use of computer, information, network, electronic, and telecommunication technologies, as well as artificial intelligence and digital information, in legal regulation.

Special legal problems may include:

- The issue of free will;
- The exclusion of lawyers from the formation of a new legal order;
- The sociality of legal regulation (ideological and theoretical-legal analysis);
  - The establishment of alternative regulators.

The problem of free will may encompass the following issues:

- the legal personhood of digital entities;
- freedom of choice in behavior: the substitution of the subject's free will with that of the operator (programmer, creator of the interface, decision matrix);
- questions of responsibility (can we speak of legal or other responsibility for an entity that lacks free will?);
- the nature of humanity, the essence of being human, and the criteria for distinguishing between subjects and objects in law.

General social problems of digitalization can be further divided into social and economic categories. Social threats associated with digitalization include: unemployment; fundamental changes in the labor market and social structure; rapid stratification of society (economic, intellectual, and potentially physical or genetic disparities linked to access to advanced medical technologies for wealthier populations); degradation of humanity (stemming from a decline in incentives for self-development due to automation of work and daily life, coupled with a decrease in the quality of education and diminished motivation for active intellectual engagement); exclusion from the social context (resulting from the erosion of existing social institutions tied to mandatory labor); and a loss of meaning in higher or professional education.

These social issues are increasingly intertwined with bioethical concerns, which also possess a social dimension. Key questions and threats in this regard include:



- The interest of lawyers and philosophers in identifying who holds human rights and whether these rights will extend to digital entities.
- The realization that a networked and information-based society may become a fully controlled, freedom-limiting environment, which is a natural outcome of advancements in information collection and processing technologies.
- The anticipated reality of total digitalization (including the rise of artificial intelligence) poses a risk of widespread loss of human nature.

The issue of the social nature of law is also linked to the problem of alternative regulators in a digital society. Some research in the legal field leads to the conclusion that in the future, law may not be universal, dominant, or even the most promising form of legal regulation. Frequently, discussions arise about the opposition between law and code, with the latter potentially displacing the former. Additionally, an alternative to the universality of legal regulation could be the aforementioned division between the rights of individuals and the rights of objects, presumably governed by different legal regimes. Another anticipated alternative is the replacement of legal regulation (in the contemporary sense familiar to lawyers) with the programming of social reality.

Another problem is often the lack of specialized knowledge: engineers need to understand law, while lawyers need to grasp technology. For instance, if we view programming code merely as a means of fixing and transmitting information in a specific form, it remains unclear how the fundamental nature of our behavior rules would change based on the method of documentation (the form, language, and symbol system used). However, if we consider programming code as the algorithms chosen by artificial intelligence when making decisions, the problem takes on a different perspective. The most pressing issue regarding information security becomes trust in the developers of analytical systems, including those based on AI [6]. Modeling legal reality is a dangerous trend, where the will of society, the individual, and social patterns are replaced by the will of the program's developer and the creator of the digital code. The translation of legal matters into algorithms for machine behavior is not performed by lawyers, which means the final functionality of the software will significantly differ from the original "spirit of the law," often leading to simplification



and a reduction in options. Technologies of virtual reality and its modeling capabilities are beginning to be applied to social reality, where the functionality of subjects is clearly defined and significantly limited compared to the complexity of human nature. Free will is substituted by role-based functionality.

In our view, the study of digitalization problems at the current stage lacks a conceptual, comprehensive theoretical-legal development of regulatory models and lawmaking for the digital society. There is nothing more practical than a good theory. High-tech law should not only be understood as law enforcement activity but also examined from conceptual and doctrinal perspectives.

Digitalization is an interdisciplinary problem, and predictive studies, including those addressing long-term threats, are necessary. However, while legal theorists and specialists in various fields discuss issues such as the potential legal personhood of robots (which is certainly a necessary endeavor), parallel legal and technical regulations are being formed in the world - developed by non-lawyers, episodically and without conceptual frameworks.

Theory has significantly influenced the development of legal thought in various countries. Among the most important ideas is the justification of the thesis that the internet constitutes a distinct legally significant space, which can be considered alongside land, water, and air territories that define the sovereign borders of a state.

Thus, current digitalization has evolved from attempts to understand its social significance to the formation of its own strategy and legal regulation. Today, it is one of the most promising areas of legal research, both in terms of theory and practical activity.

At this stage, it is impossible to automate either lawmaking or law enforcement. Artificial intelligence can be employed in these areas but must play a secondary role, assisting humans in identifying contradictions in legal norms, detecting redundancies, or highlighting illogicalities [7].

A future task for legal scholars is to create preventive legal regulations that prevent the spread of digital technologies and automation in areas that determine people's fates. Immediate tasks include researching the risks associated with the widespread adoption of digital technologies in various spheres of public life. Two



fundamental questions arise: "Is there a need to automate?" and "How should we automate?" Answers to these questions can help find a balance between technological progress and social stability. Similar questions should also be posed regarding digitalization.

Undoubtedly, there is no need to regulate progress, as it is a process that occurs regardless of the problems and trends described in this article. It is not technologies that require legal regulation, but rather the relationships that involve these technologies. Regarding the safety of using AI systems and total digitalization, most issues lie within the realm of natural intelligence rather than artificial intelligence. This means that we should regulate the actions of those with natural intelligence when designing artificial intelligence. From this perspective, law remains a necessary regulator with high regulatory potential, and the need for fundamentally different behavioral regulators becomes questionable.

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