

# TRANSFORMATION OF LAW AND LEGAL ACTIVITY IN THE CONTEXT OF THE DEVELOPMENT OF DIGITAL TECHNOLOGIES

## TRANSFORMAÇÃO DO DIREITO E DA ATIVIDADE JURÍDICA NO CONTEXTO DO DESENVOLVIMENTO DAS TECNOLOGIAS DIGITAIS

### SERGEY ZENIN

Tyumen State University, Tyumen, Russia  
South-Ural State University (National  
Research University), Chelyabinsk, Russia  
[sszenin@utmn.ru](mailto:sszenin@utmn.ru)

### ARKADIY KORNEV

Kutafin Moscow State Law University,  
Moscow, Russia  
[kornev@mail.ru](mailto:kornev@mail.ru)

### SERGEY LIPEN

Kutafin Moscow State Law University,  
Moscow, Russia  
[lihensergey@mail.ru](mailto:lihensergey@mail.ru)

### DENIS SHEPELEV

Kutafin Moscow State Law University,  
Moscow, Russia  
Financial University under the  
Government of the Russian Federation,  
Moscow, Russia  
[shepdv@yandex.ru](mailto:shepdv@yandex.ru)

### OLEG TANIMOV

Kutafin Moscow State Law University,  
Moscow, Russia  
[oleg.v.tanimov@mail.ru](mailto:oleg.v.tanimov@mail.ru)

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**Corresponding author:**

[sszenin@utmn.ru](mailto:sszenin@utmn.ru)



**Abstract:** The article has been devoted to the transformation of law and legal activity caused by the active introduction of information and communication technologies in the legal sphere. The most important areas of the existence of law, such as law-making, legal realization, and legal protection are increasingly digitalized. The main purpose of the study is to consider the transformation of law and legal activity in the context of the development of digital technologies. The methodological basis was the formal-legal, concrete-sociological, and comparative-legal methods. In addition, logical and historical methods, system-structural, analysis, synthesis, induction, deduction were used. The article reflects not only the positive aspects of the introduction of new, primarily digital technologies but also identifies individual problems that are caused by this process. In addition, questions are raised concerning the very understanding of the law, its role, and significance in the conditions of the Fourth Industrial Revolution. The law will acquire a technologized character today and in the future. The purpose of law has always been to establish social discipline in society. In the conditions of the formation of a network society and the state, behavioral models that are fixed in legal norms acquire the character of algorithms peculiar to technological civilization. Two factors will most of all determine the transformation of law – economic and technological. The study concluded that the digital transformation of law is only a change in the forms of law, that is, the forms of its objectification.

**Keywords:** State. Activity. Digitalization. Law. Technology.

**Resumo:** O artigo tem sido dedicado à transformação do direito e da atividade jurídica causada pela introdução ativa das tecnologias de informação e comunicação na esfera jurídica. As

áreas mais importantes da existência do direito, tais como a legislação, a realização legal e a proteção legal, estão cada vez mais digitalizadas. O objetivo principal do estudo é considerar a transformação do direito e da atividade jurídica no contexto do desenvolvimento das tecnologias digitais. A base metodológica foi os métodos formal-legal, concreto-sociológico, e comparativo-legal. Além disso, foram utilizados métodos lógicos e históricos, sistema-estrutural, análise, síntese, indução, dedução. O artigo reflete não apenas os aspectos positivos da introdução de novas tecnologias, principalmente digitais, mas também identifica problemas individuais que são causados por este processo. Além disso, são levantadas questões relativas à própria compreensão da lei, seu papel e significado nas condições da Quarta Revolução Industrial. A lei adquirirá um caráter tecnologizado hoje e no futuro. O objetivo da lei sempre foi o de estabelecer a disciplina social na sociedade. Nas condições da formação de uma sociedade em rede e do Estado, os modelos comportamentais que estão fixados em normas legais adquirem o caráter de algoritmos peculiares à civilização tecnológica. Dois fatores determinarão, acima de tudo, a transformação do direito - econômico e tecnológico. O estudo concluiu que a transformação digital do direito é apenas uma mudança nas formas do direito, ou seja, nas formas de sua objetivação.

**Palavras-chave:** Estado. Atividade. Digitalização. Direito. Tecnologia.

## 1. INTRODUCTION

A period that is experiencing modern civilization is called a technological revolution, which is expressed in the transition to the sixth technological way. The core of the Fourth Industrial Revolution is called digital technologies, which radically change the nature of modern society. Law remains the main regulator of public relations in these conditions. However, the law itself is subject to change. On the one hand, it should provide the legal basis and forms of technological innovations. On the other hand, it is undergoing a serious modernization, which is caused by digital technologies (Metsker et al., 2019). Both Russian and foreign studies discuss two fundamental aspects of digital transformations of law and legal activity. On the one hand, they note the pros and cons, advantages and disadvantages, opportunities and risks of computerization, networking, virtualization of political and legal relations. On the other hand, this refers to the need to revise the basic theoretical postulates of legal science, the novelty, and the possible preservation of the continuity of legal science (Kirillova et al., 2019). The first aspect involves thinking about the enormous opportunities provided for the development of activities for the creation, implementation, and application of law in modern conditions of digital technology development associated with a new level of legal information management, three to four orders of magnitude superior to the legal traditions of previous eras. There are also risks of digitalization, these are new opportunities for destructive interactions and illegal acts, the threat of unprecedented control over personality, the return of authoritarian and totalitarian tendencies, and enormous opportunities for manipulating people in their

political or selfish interests. The second aspect of digital transformations of law and legal activity is connected with the development of modern legal doctrine. Can the sovereignty of the state be preserved in modern conditions of the networkization of social interactions, the emergence of a virtual legal space, the control of which is extremely difficult? Will regulatory legal acts remain the leading role in legal regulation, or will global, regional, or corporate regulation provided by non-governmental organizations be considered more promising? Will the understanding of law-making as the activity of the state be preserved, or will the primacy pass to non-state actors? How significant are the claims of artificial intelligence in the process of creating regulatory legal acts or making court decisions, does this not entail a revision of the existing ideas about legal consciousness, the main provisions of the theory of law-making, the theory of law enforcement? Modern Russian and foreign scholars give very different answers to these and other questions in legal research.

## 2. METHODS

Methodological pluralism is currently taking place in the social sciences. The historical-materialistic approach has lost its monopoly influence on the methods of research of legal and political institutions. Nevertheless, the methodological position in modern jurisprudence continues to be maintained, according to which law and the state are seriously influenced by the structures of reproduction of public life, and above all, the economy. The methodological basis was the formal-legal, concrete-sociological, and comparative-legal methods. In addition, logical and historical methods, system-structural, analysis, synthesis, induction, deduction were used.

The economic analysis of law has a special methodological significance in the study of the interrelationship of the law of technological development. This research approach offers its view on the traditional problems of legal science, on the study of lawful and unlawful behavior, motivation for decision-making, including law-making and law enforcement. The economic analysis of law, taking into account the orientation to socio-psychological research of decision-making mechanisms in the field of economics and finance, allows for a more comprehensive analysis of legal behavior and legal activity (rational choice theory, etc.), not only from the point of view of the traditions that have developed in legal science. It is common to speak of the so-called positive and normative

economic analysis of law in the foreign research tradition. However, the issues related to both the conditionality of law by economic relations and the influence of law and the state on the economy are also known to the Russian scientific legal tradition. These issues are subject to research within the framework of the problems of methodology, the historical typology of the state and law, the economic function of the state and law, the problems of lawmaking, and the effectiveness of legal regulation. The economic analysis of law makes it possible to identify important patterns of law-making, law-realization, law enforcement, human rights legal activity in the modern conditions of the Fourth Industrial Revolution.

### 3. RESULTS

Transformation is a polysemantic category and has many meanings in various branches of scientific knowledge. Transformation means qualitative changes in social phenomena or society as a whole concerning society. Currently, there is every reason to speak about the digitalization of society as a kind of macro system. Traditionally, economic, political, social, and spiritual subsystems are distinguished in society. It is counterproductive to associate the right with only one sphere of society (subsystem). Law is one of the social regulators along with morality, religion, etc. However, law mediates all spheres of society, primarily social and economic. Nevertheless, law plays a huge role both in the political sphere and in the spiritual.

As a rule, large-scale social transformations are carried out with the help of law and based on law. For example, all successful economic reforms that were carried out in various countries in the second half of the 20th century began with legal reform (China, Vietnam, Singapore). In other words, initially, they defined the goals and tasks that should be achieved and solved, and only then the reforms themselves were carried out.

The feature of the modern moment in the context of law is that it not only serves as an appropriate form of technological breakthroughs but is itself subject to digital transformations. In other words, there is a digitalization of the legal environment (space) (Alpaydin, 2014).

The legal space is a set of public relations that objectively allow legal regulation, have already been subjected to this regulation, or are subject to legal regulation due to

certain objective and subjective factors. The legal space can be understood theoretically and defined practically only in the light of a certain understanding of the law. Different legal theories see the legal space in different ways. In turn, the characteristics of one or another theory are determined by the specifics of the sphere of legal regulation recognized by it (Lazarev, 2020, p. 148). Thus, both the legal space itself and the law as one of the social regulators are subject to digital transformations.

What does the digital transformation of law mean? This question is not so easy to answer. Indeed, the understanding of the legal space directly depends on the meaning that we put into the "law" word, which is familiar to us. For example, if the right is understood as emotions and mental experiences in the spirit of the theory developed by Professor L.I. Petrazhitsky, then we have to speak about the digitalization of just the mental component of a person. At first glance, it seems paradoxical, exotic, and impossible at the same time. Nevertheless, we are already used to such a category as the digital essence of a human. Humans are digital beings in different interpretations. Chris Skinner (2019), a leading expert in the field of fintech, called one of his books very clearly and at the same time provocatively "Digital Human. The Fourth Revolution of Humanity Includes Everyone".

The human was perceived as a synthesis of spirit and body in other historical periods, and from a religious point of view as a combination of a mortal body and an immortal soul. However today the question certainly acquires comic shades: to which part of a human does their "digital essence" relate most of all? The answer, in this case, is better not to give. Although this is not the best option for conducting scientific discussions.

The right, even if it is attributed to the inner world of a person, still feels the impact of digital technologies on emotions. Homo sapiens is rational. Rationality manifests itself in the production of concepts and judgments. The brain, as it was once believed, is a single structure and a human has only one consciousness.

Now approaches are changing. Marvin Minsky, one of the founders of the theory of artificial intelligence, proceeds from the fact that many algorithms compete in the human brain, which fight with each other for attention from the side of consciousness. Paradoxically, this is the principle by which artificial intelligence works, that is, according to a given algorithm. While the human sets the task to the machine. In this regard, some researchers note the conditionality of the artificial intelligence category. However, there are already cases in judicial practice when those accused of serious crimes were justified by the fact that the motives of the crimes were produced by one of the competing "I", that is,

algorithms. The concept of internal multiplicity is gradually institutionalized. It is quite problematic to apply the law as a social regulator in this context, moreover, in any interpretation of it.

Individual consciousness gradually becomes part of the "swarm, network" consciousness, which ultimately leads to the destruction of "human-centricity" in the broadest sense of the word. These processes in the future may lead to "the loss of subjectivity in the digital world" (Shnurenko, 2021, p. 301). We are already seeing the first signs of this phenomenon.

There are objective reasons to believe that the digital transformation of law will take more or less objectively expressed forms only when we begin to interpret the law as a system of norms; social relations (if they are regulated by law, then legal relations); interests (first of all, law-forming interests). It is with this approach to law that its digitalization is most evident.

At first glance, the natural-legal approach to understanding law, as well as the philosophical one, is the least likely to fit with digital transformation. It is not so simple here either. Let us consider the right to life. Objectively, this right has many forms of its manifestation. Is it possible to associate the right to property with a digit? Of course, yes. Today, a human creates a digital product or another that can be translated into digital. Property management can also take digital forms. As well as its use. For example, it is possible to pay taxes without leaving home, using modern information and communication technologies. Order products, goods with home delivery. Buy tickets and stuff.

It would seem that there is no reason to speak about the impact of technology on the law when we associate it with freedom. Nevertheless, even here there is a reason to speak about the digital component. Freedom has many interpretations. Most often, freedom is understood as a person's self-determination in certain situations, as the absence of external pressure. Although some authors attribute freedom, first of all, to the inner world of a person, most often it is associated with a whole system of social ties, of which a person is a participant. In other words, freedom is connected with the physical and social world. We've been used to it for a long time.

Today, such categories as a virtual world, augmented reality, etc. are also used along with the physical and social environment. In this case, this refers to the digital environment, without which it is already difficult to imagine modern society and the life of a single person. This has both pros and cons. Today, a lot of people write and speak about

the so-called generation Z (digital natives), which is very different in its psychophysical characteristics from previous generations. The essence of all progress is that it has a complex, multifaceted character. Development cannot be of a one-dimensional nature (Bastick, 2017). Nevertheless, a modern human spends a lot of time just in the virtual world, which has long replaced the real one. This circumstance is already beginning to acquire a psychosocial background. The Canadian philosopher Marshall McLuhan drew attention to this back in the late 1960s. He hypothesized that a human will practically not notice the psychogenic and social consequences that objectively cause technological innovations. They seem natural to them, just like a fish that does not notice water. The new reality, which is created by mass communication media, becomes invisible to a human. However this is a separate topic, and now an important social problem. Importantly, one of the most discussed categories, namely freedom of will, is undergoing a new interpretation. It is possible to speak about free will only conditionally in the digital world, where all processes are just algorithms. However, it is of the most important interest and importance to the law.

#### **4. DISCUSSION**

In legal science, it is considered that the economy is the determining factor in the development of law. Above, we gave examples of the advanced development of the law concerning the economy. However, this is a very conditional championship. The law should give scope to the development of economic relations in the sense that it determines the grounds and its legal forms. And yet, economics postulates the nature of innovations in law and not vice versa. There was a time when the law was given a major role in improving public relations. As it seemed, society would develop from what laws will be written. This approach has been called the legal worldview. This point of view was especially popular during the "ripening" of the bourgeois revolutions. These times have long since sunk into oblivion. There was more romanticism here than realism. As in previous historical times, the economy, as a rule, dominates other spheres of society. Thus, the digital transformation of law will be carried out in the wake of the digital transformation of the economy. That is, we enter the category of the digital economy due to objective factors.

Usually, the digital economy can seriously change the social landscape around the world, form new ideas about human activity, about the world as a whole. The era of new



technologies, if its development is guided with sensitivity and responsibility, will be the beginning of a new time and, to some extent, a cultural renaissance of humanity, which will more and more feel united. The "roboticization" of society can seriously change the institutions we are used to, such as family and work, and affect identity itself. New technologies can give rise to a worldview based on the understanding of a common destiny. (Schwab, 2018, p. 14).

It makes sense to understand how the digital economy is an economy in the true sense of the word. The digital economy does not change the essence and concerns only the content. It is an economic activity using digital technologies. Economic activities of the government using digital technologies, as well as certain non-commercial activities using information and communication means. (Stolbov & Brendeleva, 2018, p. 10).

This definition is dominated by activity, more precisely, the form of activity. For example, a government meeting can also take place in the format of a videoconference. This is especially true today, in the context of the spread of the pandemic. Whatever technologies are used, it is the form of economic activity that will prevail.

The creation of a model of the digital economy was based on the theory of the information society, which dates back to the 60s of the twentieth century. This concept is associated with the American economist F. Mahlope and the Japanese researcher T. Umesao. This type of society differs from the previous ones in that the interaction is mainly carried out with the help of computers. This type of society presupposes an appropriate economic model, which presupposes the so-called knowledge economy. Economic activity is carried out with the help of electronic information networks. Its most significant manifestation is e-commerce.

The famous economist J. Stiglitz prefers to speak about the economy of information. This approach seems to be more correct. Nevertheless, the information economy, digital technologies, have developed in a general context. As it is now customary to say, the trend of the world economy with the established market and the division of spheres. In any case, this was the case before COVID -19. Nowadays, there is a lot of writing about the fact that the world will become different. It will be so. Russia needs to rethink the experience of "reforms". After some of them, it is necessary to restore what was once achieved.

The digital economy, like the economy in general, is impossible without the cult of knowledge and information. It is clear that there are differences between them, but only



conditional. This is in one version. In another, they are fundamentally different. Here it is necessary not to forget about legal knowledge and legal information.

Knowledge is qualified as "a product of social material and spiritual activity of people; an ideal expression in a symbolic form of objective properties and connections of the world, natural and human. Knowledge can be pre-scientific (every day) and scientific, and the latter are divided into empirical and theoretical. The translation of disparate ideas into a theoretically systematized universally meaningful form is carried out in the knowledge, the retention of what can be preserved, transmitted, successively developed as a stable support for subsequent human activity.

Knowledge, one way or another, is related to the activity. In this regard, knowledge is often defined as the ability to work. An activity that does not rely on knowledge is devoid of any meaning. This is directly related to legal activities. Especially, to the legal profession. The lack of legal knowledge leads to legislative, law enforcement errors. Including judicial ones.

The absolute majority of people have the amount of legal knowledge that their personal legal experience has given them.

Information (Lat. information – explanation, presentation) – a) some information, a set of any data, knowledge, b) one of the basic concepts of cybernetics. One of the functions of information is that it is a measure of the organization of the system.

The obvious fact is that law today is a huge array of information. It can also be considered a sign system (Waddington, 2020). In terms of the digital transformation of law, it can be assumed that it will be largely if not all (meaning legislation) digitized (Dale, 2019). If a language today is considered only as a means of communication (it has, that is, a language, many other functions), then two languages will dominate the planet shortly – English and programming language. It is with this language that the digital transformation of law should be associated (Van Gog & Van Engers, 2001).

If the law moves in the direction that the economy sets, then changes in the legal sphere are inevitable. Sometimes, as has happened more than once in history, the law may be somewhat ahead of the development of the economy. This has been repeatedly stated with specific examples. It is difficult to list all the problems that will need to be resolved using legislation.

Digitalization will affect both the entire legal system, as well as the system of law and the system of legislation. Of course, the digital form will come or has already come to

specific branches of law: criminal, civil, labor, municipal, etc. (Jackson, 2019). For example, by 2025, all the data that different authorities have on a person will be stored in one place: full name, age, IIAN, TPIN, OMI Policy, military service details, information about contacting the employment service and much more. This should make public services more convenient: there is no need to collect a huge number of documents, papers will move between departments faster. Each person will have their individual number, which does not depend on either moving to another region or changing their name (Kozurov, 2020).

Information and communication technologies carry not only obvious advantages but also potentially many threats (Le Sueur, 2016). Social communications, or as previously said, public relations, are gradually disappearing into the virtual world. A person will never give up the charms of physical contact due to their sociobiological nature. If the law is designed to regulate public relations, then its digitalization is inevitable in the new conditions. An approximate outline of this gradual process can be seen in the works of the aforementioned Klaus Schwab, founder and Executive Chairman of the World Economic Forum in Geneva, Switzerland.

In his opinion, technology will have an impact on broader aspects of our lives, including human rights and human interaction with society, as well as relations between peoples. The understanding of what is possible, permissible, and necessary in our life will change. For these and other reasons, it is extremely important not to forget about a person in the process of technology development. What is especially important in the context of the article's problems: "Public and legislative norms designed to regulate advanced technologies are still being formulated. Everyone can and should participate in the discussion of ways to develop technologies that affect our lives".

This is only a narrow range of issues that should be addressed shortly. It is not exhaustive. At least because technological civilization is constantly changing the foundations of its existence. First of all, it is characterized by its innovative character.

It seems that law will eventually take on an increasingly "technological" character, like civilization itself. The law, as it seems to us, will become part of the technological order, which will be formed at a pace that amazes the imagination. However, it is not necessary to get carried away with secondary issues, as has happened more than once in our history. There is no digital economy, and there will not be. A digit is only a means, a form, a way, nothing more. The digit will not replace either sausage, house, or clothes. It's just

going to help create it all. It is necessary to look into the future without losing realism. Similarly, it is necessary to speak more convincingly about the digitalization of law.

This topic has become fashionable to some extent. They write dissertations on digital law, digital rights, equality in the digital sphere, etc. For example, it is proposed to recognize the formation of a new group of human rights – digital rights, the implementation of which is associated with the use of information presented in digital form. A new legal definition of digital identity is introduced, which means a unique set of information about a person presented in digital form, using which individuals enter into legal relations, exercise rights, and obligations. Thus, it is allowed to distinguish digital identity from real identity. There are attempts to justify such a category as digital equality, which should be provided based on the principle of network neutrality and accessibility (Tulikov, 2017, pp. 8-9).

An amendment was made to the Civil Code of the Russian Federation in the form of Article 141 in March 2019, which consolidated the digital rights. There is every reason to say that the article is premature, "dead", which will not be widely used very shortly. Two factors will determine its legal fate: the distrust of participants in civil turnover of digital forms of transactions and the lack of such an opportunity for a significant part of the Russian population. No point to discount the notorious digital literacy. There is such a problem and so far it is being solved slowly.

We give only two parts of this article: 1. Digital rights are a kind of obligations and other rights. 2. Owners of information rights are those persons who are named in the rules of information systems and are entitled to dispose of their rights.

In addition to the above, there are other issues, including inconsistency with the laws of formal logic and not very clear expression of the rule from the standpoint of legal technology (ODSC – Open Data Science, 2019). Nevertheless, digital rights are enshrined at the legislative level. The question is different now: how widely will they be used?

## 5. CONCLUSION

Concerning social science, any transformation involves serious changes in social institutions, their role, essence, and purpose. New, previously unknown institutions or phenomena may appear as a result of the transformation.

Digital technologies are currently penetrating all spheres of life of society and the state, and most seriously affect them.

Law is a phenomenon derived from economics. Because of this, the digital economy, for all its conditionality, will be the determining factor concerning the law.

The digital transformation of law will affect only those parties (aspects) that are objectively subject to digitalization. These are, first of all, the legislative and law enforcement spheres. Ideal and psychological forms of legal existence are not subject to any digital transformation. It is difficult to imagine how legal consciousness can be digitized. Although we spoke about the algorithmization of the individual according to the network consciousness. Legislative and law enforcement activities in various branches of law are currently carried out with the help of information and communication technologies.

Any phenomenon and institution have an essence, form, and content, and law is one of the social institutions. *The digital transformation of law is only a change in the forms of law, or to be more precise, the forms of its objectification.* For example, a legal relationship, along with its classical form, can acquire a digital one, and so on. The "digital essence" and "digital content" are very conditional categories. However, some authors take them seriously or just follow established stereotypes.

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