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state officials, lawyers specializing in legal regulation of digital economy, business and competition law, small and medium business, entrepreneurs, researchers, students and staff of legal departments of universities, master and PhD students and all readers interested in the aspects and topical matters of developing legal regulation of digital economy in Russia and other states.

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- Legal regulation of Big Data
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- Interests and contradictions associated with blockchains in Finance
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FOREWORD BY THE RECTOR OF KUTAFIN MOSCOW STATE LAW UNIVERSITY (MSAL) VIKTOR BLAZHEEV

In recent years, serious economic, socio-structural changes have taken place in Russia and in the world, social processes are developing in the context of digital transformations. Modern digital technologies, digitalization processes penetrate the most diverse spheres of public relations. The economic foundations of the social structure are predetermined by the level of development of digital technologies. With the opening of new business opportunities and the development of entrepreneurial relations, the widespread dissemination of digital technologies in economic processes also generates new risks and threats to existing business models.

In this context, legal regulators must fully meet the needs of the emerging digital economy. Modern normative legal approaches, instruments of legal regulation, acts of non-state influence on economic relations should take into account the specifics of the digital environment for their implementation.

In order to implement the provisions of the Decrees of the President of the Russian Federation No. 204 of May 7, 2018 “On national goals and strategic objectives of the development of the Russian Federation for the period up to 2024” and No. 474 of July 21, 2020 “On the national development goals of the Russian Federation for the period up to 2030”, the Government of the Russian Federation has formed a national program “Digital Economy of the Russian Federation”, approved by the minutes of the meeting of the Presidium of the Council under the President of the Russian Federation on Strategic

Development and National Projects No. 7 dated June 4, 2019.

One of the key federal projects that are part of the designated national program is “Regulatory Regulation of the Digital Environment”, which emphasizes the particular importance and importance of creating a favorable legal framework for the implementation of digitalization projects in the Russian jurisdiction.

The journal “Law and Digital Economy” is intended to accumulate modern doctrinal approaches in the field of legal support of the digital economy and serves as an open discussion platform for the analysis of the problems of legal regulation of economic relations implemented in the digital environment.

It is gratifying to note that the fourth issue of the journal in 2021 on the topic “Innovations and prospects for the development of legal sciences in the digital era” is timed to coincide with the 90th anniversary of the KutafinMoscow State Law University (Moscow State Law Academy), which traditionally meets the latest legal challenges with great enthusiasm.

The new volume of the journal “Law and Digital Economy” presents both articles by leading figures of domestic jurisprudence and young scientists, as well as practicing lawyers and foreign scientists from Italy and Switzerland interested in the problems of digital law. Without a doubt, the volume will be useful for everyone who specializes in the most relevant areas of legal regulation of new social relations affected by digitalization processes.

INTRODUCTORY REMARKS BY THE EDITOR-IN-CHIEF MARIA A. EGOROVA

It is no secret that the digital transformation of the economy and society presupposes the digitalization of legal activity and legislation. Today, this is one of the most pressing topics. Digitization is rightly considered as the next, fourth, stage in the automation of human life, which should be marked by a transition to on-line systems that provide acceptable security for remote user interaction (digital trust environment) based on digital systems, in particular, a distributed ledger.

At the same time, it is obvious that digital transformation cannot occur without appropriate legal support, including digitalization of legislation and legal activity. Lawyers are required not only to know the digital doctrine of law, but also the technical aspects of introducing advanced technologies into practice. That is why today, more than ever before, an interdisciplinary approach to legal research is important, which makes it possible to integrate natural science, technical and humanitarian knowledge and, on the basis of this approach, to develop modern models of legal regulation of new social relations affected by the rapidly developing processes of digitalization that meet the challenges of the time.

The volume of the journal presented to the reader is dedicated to the 90th anniversary of Kutafin University. The theme of the anniversary edition “Innovations and prospects for the development of legal sciences in the digital age”

was not chosen by chance, the digital economy, which creates conditions for the development of platforms and technologies and effective interaction of market actors and sectors of the economy and covers regulatory regulation, information infrastructure, personnel and information security, has a significant impact on the development of society and the state, legal norms are inevitably transformed under the influence of the digital transformation of public relations.

The main task of the fourth volume of the journal “Law and Digital Economy” in 2021 was a comprehensive study of new phenomena and relations that have developed in connection with the development of society in the era of the digital economy, the formation of a theoretical understanding of the essence of these phenomena and relations, the study of the prospects for their legal regulation and formulating proposals for improving legislation and bringing it in line with the need for the development of the digital economy and information society in Russia.

The current issue of the journal “Law and Digital Economy” provides readers with an opportunity to get acquainted with the main problems of legal regulation of digital legal relations, new challenges faced by the legal community, scientific discussions accompanying the process of developing legislative initiatives affecting various aspects of digitalization of various aspects of public life.

K. L. Branovitsky*,
V. V. Yarkov**

POSSIBLE WAYS OF THE CIVILISTIC PROCESS TRANSFORMATION UNDER DIGITALIZATION AND PANDEMIC: PREDICTIVE JUSTICE¹

Abstract. The article is devoted to the analysis of the development and use of predictive justice as one of the most likely means for the improvement of a civilistic process. The authors underline the fact that digitalization and pandemic have stimulated the development of predictive justice. The authors explain the limits of predictive justice's usage, based on the current concept of the judiciary.

Keywords: Civil process, Digitalization, Pandemic, Predictive justice.

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Introduction

The serious changes currently taking place in Russia and in the world in the social and economic life of society, caused by the need to respond to new pandemic threats on the one hand, as well as the continuing development of information technology and, above all, artificial intelligence, on the other, are a new challenge for modern law and order in its traditional sense. There is no doubt that the ability to withstand such challenges as a global pandemic, both on the part of individual states and various integration associations, is a clear confirmation of the effectiveness and stability of the rule of law.

At the same time, it would not be entirely correct to believe that solely the factor of the COVID-19 pandemic, in itself, is a challenge to change the traditional ideas about such a state institution as justice. Of course, this factor played a

large role in understanding the importance and, to some extent, the lack of alternatives of information technologies in legal proceedings (due to quarantine measures, self-isolation regime) from the point of view of guarantees of the availability of judicial protection of the rights and legitimate interests of citizens and organizations, and the openness of legal proceedings. In turn, the possibility of participation of persons participating in the case in online sessions of the arbitration court, which appeared in the domestic legal order,

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¹ The article was prepared and published within the framework of the grant of the Russian Foundation for Basic Research "Information technologies and jurisdictional activity: the image of the future of justice" No. 18-29-16070.

or the existing features of calculating procedural time limits in Austria or Germany, were rather aimed at increasing guarantees of the right to be heard in court.²

At the same time, the very process of serious transformation of the so-called. “Deritualization” and “dematerialization”³ of the process began much earlier and was, on the one hand, a global trend and a change in the perception of justice as a service, as well as the result of the active introduction of information technologies into the activities of justice, on the other. In the latter case, the more actively the law and order introduces modern technologies into the civil process, the sooner there will be a need to understand the resulting changes in the traditional concept of the process as a kind of ritual.⁴

At the same time, one can observe a certain change in the current scientific agenda, namely, the general perception of digitalization as “improving, speeding up and making dual infrastructure “, etc.⁵

In this sense, the process of transformation of justice that is taking place before our eyes is primarily due to the active introduction of digital technologies, the course for the introduction of which into domestic legal proceedings was taken long before the COVID-19 pandemic that swept the whole world. The latter only added relevance to the transformational agenda.

Predictive justice as the next rung?

One of the classic and indisputable postulates of the procedural doctrine in the issue of court-technology relations is that large-scale introduction of digital technologies into legal proceedings cannot and should not affect the essence of judicial activity, where the decision-making should always remain with the judge. Modern technologies act exclusively as a means of solving problems of justice, playing, in essence, an auxiliary role.⁶ We can safely say that for the most part, we are talking only about an instrumental approach to the use of technologies and electronic technical means in legal proceedings.⁷

² Branovitsky K. L., Renz I. G., Yarkov V. V. Forensic lawmaking in the context of the coronavirus pandemic: nonsense or necessity? // *Law*. 2020. No. 5. P. 40—42.

³ Deritualization of justice means the exclusion of many of its traditional procedural provisions, which, in the opinion of the legislator, are aggravating and complicating. In turn, the dematerialization of the judicial process is an active use of information technologies with the introduction of methods of “contactless” justice, when the communication of the court and the participants in the process occurs only within the framework of the “virtual judicial space” and is almost completely carried out without the judge’s personal contact with the parties. For more details see: V. V. Yarkov. Principles of civil procedural law in the context of deritualization and dematerialization of justice // *Arbitration and civil process*. 2020. No. 11. P. 3— 6.

⁴ In science, some researchers put the question much broader, and digitalization is seen as a challenge for law in general. For more details see: Khabrieva T.Ya. The right to the challenges of digital reality // *Journal of Russian law*. 2018. No. 9. P. 5—17; Talapina E. V. Law and Digitalization: New Challenges and Prospects // *Journal of Russian Law*. 2018. No. 2. P. 5—17 ; Konstantinov P. V. Digitalization as a modern threat to the law // *Bulletin of civil procedure*. 2019. No. 2. P. 149—156.

⁵ Branovitsky K. L., Renz I. G., Neznamov A.I., Neznamov A.V., Yarkov V. V. Digital technologies in the civil process: some trends and prospects // *Bulletin of the civil process*. 2019. No. 4. P. 52—95 ; Aliev A. New methods of dispute resolution: competition and interaction with classical tools in the era of digitalization and globalization. *Bulletin of the European-Asian Legal Congress*. 2019. No. 1. S. 126—129 ; Anosov M. Digital technologies affect fundamental areas of law: what should lawyers prepare for in the near future? // *EZh-Lawyer*. 2018. No. 9; Neznamov A. V. “Digital education”, accessibility of justice and the economic component of digitalization of civil proceedings // *Arbitration and civil procedure*. 2019. No. 9. P. 53—57.

⁶ The point of view is expressed that electronic justice in Russia is at the very beginning of its development. For more details see: S. V. Vasilkova. Electronic justice in the civil process: Dis. ... Cand. jurid. Sciences: 12.00.15. SPb., 2018. P. 214.

⁷ The existing objective focus on digitalization of legal relations through the development of information technologies is reflected, in particular, in the Strategy for the Development of the Information Society in the Russian Federation

In the scientific literature, one can find very cautious judgments about the weak prospects for using artificial intelligence in justice,⁸ primarily due to the risks of artificial intelligence intruding into the sphere of judicial discretion.⁹ To exclude the institution of judicial discretion means to deprive legal proceedings of meaning, say representatives of this approach.

Other researchers emphasize that regardless of the degree of automation of legal processes and the use of artificial intelligence in them, a person should have a direct impact on decisions.¹⁰

Interesting and noteworthy are also the judgments that the key problem of using artificial intelligence lies not in the field of technology, but in ethics, since the key question is not whether artificial intelligence has consciousness, but the understanding that if, for example, we if we replace a human judge, then people will no longer be judged by their peers.¹¹

On the other hand, one can meet a polar point of view that the issue of administering justice by artificial intelligence should be removed from the agenda in the very near future, since this is the only way to avoid judicial arbitrariness “as an inevitable component of human activity.”¹²

Without delving into the discussion, we only note that in many respects such polar points of

view arise when setting up a provocative constellation: the replacement of a human judge by artificial intelligence, the key element in this is the concept of “replacement”. It is the replacement of a judge with an “artificial intelligence unit” that is one of the most controversial issues.¹³

At the same time, considering modern technologies in the paradigm of assisting / assisting a judge in the process of preparing, considering a civil case in the context of predictive justice,¹⁴ one can try to reduce the degree of discussion and, by considering the procedural features of such activities, approach its practical implementation.

First of all, let us dwell on the concept and essence of the phenomenon that is commonly called predictive justice. The doctrine notes that the current state of the development of predictive justice is based on the analysis of the algorithms of databases of court decisions. The algorithm learns to highlight in court decisions the machine some of the factors inherent in this group of disputes. In addition, the analysis is carried out on the basis of language analysis.

Thus, today such legaltech as “predictive justice” is a kind of “weak” artificial intelligence, functioning on the basis of algorithms (a set of rules) created by people.¹⁵

for 2017-2030. For more details, see: Strategy for the Development of the Information Society in the Russian Federation for 2017—2030 (approved by Decree of the President of the Russian Federation No. 203 dated May 9, 2017) // *Sobranie zakonodatel'stva Rossijskoj Federacii*. 2017. No. 20. Art. 2901.

⁸ A human judge must use digital technologies as a legal assistant to carry out his activities ... The ideal form of cooperation between a judge and artificial intelligence is seen in the instant processing of information and preparation of documentation by a robot, but the final decision is made by the judge. For more details see: Kovalenko K. E., Pechatnova Yu.V., Statsenko D. A., Kovalenko N. E. Robot judge as overcoming the contradictions of judicial discretion (legal aspects). *Legal Bulletin of DGU*. 2020. No. 4. P. 169—173.

⁹ Kovalenko K. E., Pechatnova Yu.V., Statsenko D. A., Kovalenko N. E. *Op. cit.* P. 171.

¹⁰ Nagrodskaya V. B. New technologies (blockchain / artificial intelligence) in the service of law: scientific and methodological manual / ed. L. A. Novoselova. Moscow: Prospect, 2019. P. 118.

¹¹ Bravo-Hurtado P. Automation of the administration of justice: addressing three erroneous judgments about artificial intelligence // *Bulletin of civil process*. 2018. No. 1. P. 188.

¹² Kolokolov N. A. Once again about artificial intelligence in justice // *Criminal justice*. 2020. No. 4. P. 3—6.

¹³ Morhat P. M. Legal personality of artificial intelligence in the field of intellectual property law: civil law problems: Dis. ... *Dr. jurid. Sciences: 12.00.03*. Moscow, 2018. S. 131.

¹⁴ For a similar conclusion, see: G. A. Vasilevich. Digitalization of law as a means of increasing its efficiency. *Constitutional and municipal law*. 2019. No. 8. P. 32—35.

¹⁵ For more details see: Konstantinov P. D.. Judicial discretion, stereotyped judicial decisions and the nature of justice in the light of predictive justice // *Arbitration and civil procedure*. 2020. No. 7. P. 27—31.

As a fundamental issue in the analysis of predictive justice, it is necessary to outline the actual limits of its application in legal proceedings. Establishing limits is an essential element for the possible practical implementation of such legaltech, in view of the following. If predictive justice is a kind / technology of artificial intelligence,¹⁶ then any “replacement” of a person with technology automatically throws us back into a discussion about the ethical aspects of artificial intelligence and at the same time moves us away from practical steps to introduce legaltech into legal proceedings.

A possible way out of this situation can be the use of the capabilities of predictive justice as an auxiliary tool in the administration of justice, subject to one very important rule, namely, granting the right to use all the possibilities of legaltech not only to the court, but also to the parties to the proceedings.

Existing approach

Imagine a situation where the advantages of predictive justice as an auxiliary technology are used only by the court (existing projects on the so-called “small cases” in France, projects of the European Court of Human Rights). In this case, with a properly configured and effective algorithm, only a court can receive significant relief in work.

In this case, the parties to the proceedings, on the contrary, may face the complication of the process, namely the problems of “statistical truth”, in which it will be more difficult to convince the

judge of his correctness of his position (different from the options proposed by the system).

The fact is that the average judge who does not use such legaltech is ready, in principle, to admit the existence of points of view and examples of judicial practice that differ from his own pre-formed conviction (e.g. at the stage of preparing a case, studying written evidence), since he will be a person unable to know and keep track of all changes in legislation, judicial practice and doctrine.

In such cases, the court’s awareness of the “nature of a human judge” may enable the party to convince / convince the judge of the correctness of the approach proposed to it and the erroneous-ness of the judge’s preliminary assessment of the situation.

If the situation changes with the addition of “weak” artificial intelligence in the form of predictive justice to assistants to the judge, the preliminary conviction of the judge (the so-called subjective presumed result of the consideration) will be multiplied by the statistical truth (the proposed outcome is considered based on the analysis of tens of thousands of similar cases) that the machine will offer him.¹⁷ In this case, it will be more difficult for the parties to shift the position of the court, if only because they will be deprived of the opportunity to “see” the solution of their case proposed by legaltech, to understand and compare the actual circumstances of their case with the way the algorithm understood them, etc.

In this case, we are faced not only with a possible violation of the principle of independence

¹⁶ Konstantinov P. D. Op. cit. P. 28.

In addition, in this case, the question may arise about the degree of independence of the court. For more details see: V. V. Yarkov. Principles of civil procedural law in the context of deritualization and dematerialization of justice // Arbitration and civil process. 2020. No. 11. P. 3—6.

¹⁷ In this sense, it cannot be ruled out that the subjective / judicial and “objective” / machine convictions can change places over time, and the judge, even before forming his position on the case, will “spy” on the option proposed by the algorithm. In this case, we may face a certain kind of influence on the judge, which is unacceptable and violates the principle of independence. To illustrate a possible picture, it is enough to imagine a situation from ordinary life, in which a senior and highly respected colleague of the judge, before the latter studied the case, in a private conversation “explained” his point of view on what was happening, on how to resolve a particular case.

of judges, but also with a violation of the right to be heard. This right is inextricably linked with the idea of a state governed by the rule of law, in which everyone is guaranteed the right not only to act as an object of legal proceedings, but also to speak out and influence by their actions the course of the process and its result, and the court is obliged to respect the rights of the participants in the proceedings.¹⁸

This guarantee, known since Roman law as *audiatur et altera pars*, appears in German law as three main elements:¹⁹

- 1) the right to receive information on the course and content of the trial, including to familiarize himself with the content of all petitions and statements of the opposite party and interim judicial acts;
- 2) the right to bring his position to the court: the opportunity, at least in writing, to bring to the court both his point of view on the factual circumstances of the case and the legal position before the adoption of the final judicial act on the case;
- 3) the right to take this position into account by the court, which is considered in the context of the court's obligation to take into account and assess the position of the party in the case, including the petitions and statements made by it.

In the case of such a legal order as domestic, when the court does not make interim decisions (due to the lack of an appropriate doctrine and legal regulation), does not provide explanations to the parties on its future decision (fearing

accusations of impartiality), i.e. in the conditions that persist until the decision is announced, the right uncertainty, the addition of a new uncertainty in the form of a solution proposed by the algorithm hidden from the parties is unlikely to contribute to an increase in the legal protection of citizens and organizations, but to meet the goals and objectives of legal proceedings.

The proposed approach

Taking into account the aforementioned “features” of the domestic legal order, in the context of the principles of legal certainty and ensuring the tasks of uniformity of judicial practice, one can try to move a little further just the recommendatory nature of predictive justice and make the proposed solution open to the participants in the proceedings.

Taking into account the interests of the parties, and not only departmental tasks to reduce the burden on the courts, together with the tasks of ensuring the uniformity of judicial practice, could act as a catalyst for the practical implementation of the ideas of predictive justice in the domestic legal order.

Indeed, in a situation where one rule of law is applied in different ways, there is a threat to the unity of the rule of law as a whole. Uniformity in law enforcement is the essence of justice achieved in a state governed by the rule of law through the principle of equality of all before the law. At the same time, the principle of equality of all before the law should bind all branches of government, including the judicial, albeit on a very limited

¹⁸ It should be noted that in the Russian legal order the right to be heard as an independent principle is absent. A reference to this principle as a general legal principle ensuring the observance of the right to a fair trial is contained in the resolutions of the Constitutional Court of the Russian Federation of March 12, 2001 No. 4, of July 19, 2011 No. 17, of January 19, 2017, No. 1.

For a detailed review of doctrinal points of view on this principle, see: Fokina M. A. Development by the Constitutional Court of the Russian Federation of the adversarial principle in civil and arbitration proceedings, administrative proceedings (to the 25th anniversary of the Constitution of the Russian Federation) // *Modern Law*. 2019. No. 4. P. 72—83.

¹⁹ For more details on the doctrine of “unexpected decisions” see: K. L. Branovitsky. The concept and meaning of judicial leadership in the consideration of the case on the merits in the civil procedure in Germany // *Zakon*. 2014. No. 4. P. 177—186.

scale, due to the presence of verifying instances within the judicial system.²⁰

A technology such as predictive justice, which allows a judge to automate the selection of court decisions to form his own legal position in resolving a case, can and should serve the interests of not only the court, but above all the parties. After all, the ultimate goal of justice is the protection and restoration of violated rights and legitimate interests.

Imagine a situation when, following the preparation of the case for trial, i.e. based on the results of the analysis of the positions of the parties, presented evidence, not only the judge, but also the parties will be given the opportunity to familiarize themselves with the interim “decision based on statistical data”. In such a case, the court, while retaining its independence, can and should continue the examination of the case and the examination of the evidence, while retaining the ability to deliver a final judgment different from the proposed one.

In turn, the parties can choose different lines of procedural behavior: from strengthening the winning position by presenting additional evidence, to refuting the proposed option for resolving the case, for example, due to differences in the actual composition of similar and pending cases, errors in the legal composition, etc. The possible increase in the attractiveness of conciliation procedures and settlement agreements in the context of increasing the predictability of a judicial act cannot be disregarded.

In addition, the openness of the court to dialogue and the possibility of filing objections, as opposed to the closed nature of the results of

predictive analysis, will help to increase trust in the judiciary in the eyes of society, the deficit of which, together with a certain closure of the court’s dialogue with the participants in the proceedings (due to the multiple growth of written proceedings), is inherent in the domestic law and order.

Some conclusions

The ongoing course towards digitalizing justice, highlighted by the COVID-19 pandemic, is leading to the inevitable transformation of the latter. In turn, the current procedural agenda has sparked with new colors in the context of the development of artificial intelligence. At the same time, most of the discussions around artificial intelligence in general and predictive justice have focused on the admissibility / inadmissibility of replacing a person with a machine.

At the same time, it should be noted that both supporters and opponents of the need to introduce a robot-judge unanimously speak of the impossibility of implementing such a complete replacement, to a greater extent for technological and, to a lesser extent, ethical reasons.

In turn, when using the auxiliary functions of predictive justice (without replacing a person with a machine), the absence of serious technical problems of “weak” artificial intelligence, which undoubtedly requires debugging and fine tuning, is recognized. At the same time, without taking into account the procedural guarantees and the social essence of justice, without giving this auxiliary process an open character, there is a serious risk that the discussion may remain “on paper” for a long time.

²⁰ Branovitsky K. L., Renz I. G., Yarkov V. V. Ensuring the unity of judicial practice in Russia and abroad: in search of a balance. *Law*. 2020. No. 1. P. 69—84.

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S. U. Breu*

REGULATION OF BLOCKCHAIN PROJECTS BASED ON DISTRIBUTED LEDGER TECHNOLOGY

Abstract. The digital economy and Distributed Ledger Technology (DLT) are developing rapidly into our business and private life. The technology enables a way to secure decentralized datasets without involvement of third parties or intermediates in a secure, auditable and incorruptible way. Storing data on worldwide peer-to-peer networks makes these applications difficult to regulate as they are not residing in a specific area of influence of any given regulation or jurisdiction.

Blockchain applications based on DLT offer an extensive level of anonymity to their stakeholders. In future artificial intelligence could start to optimize the applications and trigger decisions automatically which will become a major challenge for competition and anti-trust regulators. Based on the Bitcoin technology we will see that there are fair possibilities to regulate the ledgers indirectly through existing legal and regulatory systems.

Also, strong self-regulation will play a part to make these technologies widely acceptable. Capacity building has to be emphasized to keep the asymmetry of information between regulators, industry and consumer as small as possible. Some scholars already claim that blockchains have already started to create a supranational economy in which the classical idea of a legal person is obsolete whereas the supranational law is not really designed to address these new developments yet.

Keywords: regulation, distributed ledger technology, Blockchain, cryptocurrencies.

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Introduction

Since the appearance of Distributed Ledger Technology and accordingly Blockchains there is a new field of challenges to regulators and authorities opening up. Most attention in the public and media has been put on the Bitcoin-Blockchain based on the Open Distributed Ledger Technology. Blockchains are basically algorithms with decentralized data storage on a peer-to-peer network lacking a centralized administration. The software for most blockchain applications is open source

and keeps the ledger of all transactions ever occurring on public files. If a blockchain is directly administered, it is not an Open Distributed Ledger anymore.

The inherent decentralizing and anonymity aspects of DLT makes it difficult to define an appropriate jurisdiction. In traditional law, and in absence of any agreement stating otherwise, DLT disputes are normally settled by state courts. But state courts mostly do not have the authority and tools to act in this environment. Missing a clearly defined legislative umbrella for transaction with DLT the regulators have to concentrate on the gatekeepers between the Distributed Ledger and the real world.

Here they can regulate through compliance regulations or through determining which ledger is recognised within the existing legal and

regulatory system. International initiatives for developing international law for facing the new challenges will be necessary for the future.

Another approach is shown in this paper by presenting the softer self-regulations implemented in Switzerland through the Swiss Crypto Valley Association publishing the ICO Code of Conduct for Switzerland in January 2018.

Still, the fact that some researchers state that Bitcoin with its underlying blockchain has already started to create a supranational economy in which the classical idea of a legal person is obsolete¹, this paper aims to start discussing the possible frictions between blockchain applications, their stakeholders and legislative and regulatory authorities.

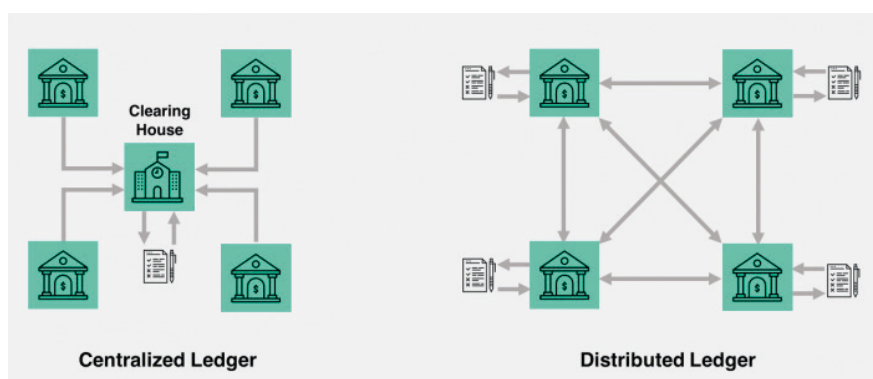
An important challenge for regulators and society is an increasing asymmetry between the blockchain industry, its stakeholders and the legal system and consumer. Today's approach by various governments to implement more and more legal restrictions on the internet will not prove sustainable². DTL and Blockchain technology is definitely a challenge to legislative and regulatory authorities that is asking for massive capacity building and adjustments of existing legal frameworks to give an answer to the challenges of tomorrow.

Short introduction to Distributed Ledger Technology (DLT)

Ledger Technology has been used for a long time even before the digital version of it existed. Maintaining ledgers is a fundamental tool for accounting since the beginning. The technologies to maintain the ledgers might have changed over time but one thing was always inherent- a third party was registering, validating and overlooking each transaction. This was a basis for the validation and trust the involved parties had into this accounting system.

Distributed Ledger Technology (DLT) is now the first form of ledger that is not relying on any third party for verifying and registering transactions. It delegates the maintenance of the ledger and the responsibility to validate it into the hands of all users of the ledger. This creates a decentralized system of a data register that is transparent, reliable, auditable and incorruptible.

Through its dynamic form DLT has much more potential than static paper-based ledgers. As we already know DLT data is not secured and verified at a centralized place which could become a Single Point of Failure. DLT is avoiding the inclusion of any central authority or intermediate to process, validate or authenticate data. Data will



Copyright: [www.krypto-vergleich.de /distributed-ledger-technology/](http://www.krypto-vergleich.de/distributed-ledger-technology/) — Was ist Distributed Ledger Technology und wie funktioniert es; retrieved April 4, 4021

¹ Dima Starodubcev, "Bitcoin created a supranational economy", published March 17, 2016 on coinfox.info. URL: <http://www.coinfox.info/news/persons/5109-dima-starodubcev-bitcoin-created-supranational-economy>.

² UNESCO Global Report 2017/2018 "World Trends in Freedom of Expression and Media Development", published 2017 by UNESCO. URL: http://www.unesco.de/fileadmin/medien/Dokumente/Kommunikation/EN_WTR_2017_Executive_Summary_web.pdf.

only be included in the DTL after consensus of all parties maintaining the system is reached.

For inclusion into the DLT all new data will be stamped with the date and time and will be referenced with a unique cryptographic signature. All participants of the DLT can at all times access all data and therefore there is a verifiable and auditable history of all information in a dataset available.

A Distributed Ledger is decentralized through its technology. As soon as any administrator has the control over the network it is not decentralized anymore. So DTL is a first step towards Blockchain technology. But it is important to understand that DTL do not necessarily build up blockchains. It can also be used to build other networks that are maintaining decentralized datasets securely.

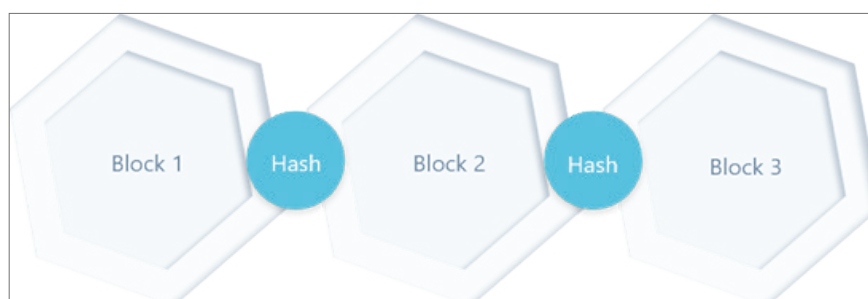
Still Blockchain is the most prominent application using Distributed Ledger with a very specific technological basis. In blockchains, groups of datasets with cryptographic signatures are linked to each other to build a chain of datasets. One of the best examples for such an Open Distributed Ledger is Bitcoin as the leading Cryptocurrency.

The conclusion is that Distributed Ledger Technology and Blockchains are not the same. Blockchain is in any case using DTL but DTL has not to be a blockchain in each case. The potential of DTL in the future is far greater than solely the use of blockchains, going into multiple areas of our business and private life.

Blockchains and it's most prominent application Bitcoin

We have seen that Blockchains are Distributed Ledgers so basically an algorithm with decentralized data storage, lacking a central administrator, and where the participants know nothing about each other. Best known as the technology behind bitcoin as the leading cryptocurrency. Bitcoin and its underlying blockchain technology were first introduced by Satoshi Nakamoto in his paper "Bitcoin: A Peer-to-Peer Electronic Cash System"³ in 2008.

The whole software for this kind of cryptocurrencies is open source and keeps the ledger of all transactions ever occurring on public files. The records of all transactions are secured on the computers that build this ledger, but not the whole ledger on all but only small blocks with references to other blocks on all these computers worldwide, linked and secured using cryptography. This means, any alteration of any block cannot be done without alternation of all subsequent blocks which makes the system permanent, efficient, incorruptible, and auditable. So, each transaction and its identification is validated by at least three parties involved in maintaining the whole system and "mining" new blocks of information containing data relating to the actual transaction. By solving mathematical problems presented by the system these blocks are added to the existing blockchain, so all members of the system have access to the data. If a transaction is not verifiable with the existing blockchain the new blocks



Copyright: <https://tadeix.com/didtributed-ledger-technology/>; the Difference Between Blockchain and Distributed Ledger Technology; retrieved April 4, 2021

³ Nakamoto Satoshi. "A Peer-to-Peer Electronic Cash System", published in November 2008. URL: <https://bitcoin.org/bitcoin.pdf>.

will not be integrated and so the integrity of the system is guaranteed.

Blockchains have been described as a potential secure and efficient solution for several applications.⁴ It is also widely expected that blockchains will track integrity and provenance of other special products like pharmaceuticals, diamonds or seafood in future. Blockchain will change the way of exchanging data and the ability to transact globally in various fields, including financial services. Beside the public blockchains, like the one used by bitcoin, there are new applications like consortium blockchains where the consensus process is limited to predefined nodes of the blockchain i.e., participants and members of the consortium.

The access to the blockchain can be public or restricted or even hybrid. In a fully private blockchain the write permission is kept by one organisation, but it might be possible to have public reading permission or even that could be restricted to certain stakeholders of the blockchain. In contrast to the public blockchains, consortium or private blockchains can easily change rules and entries in the ledger and even revert processes.

But having a central entity controlling the blockchain and being capable of interfering with the algorithm, especially for the challenges discussed in this paper, might solve the problem to define a responsible legal entity and take legal actions against it. This makes a big difference to Open Distributed Ledger Technology where such a legal entity is difficult to define.

Legal Responsibility in an Open Distributed Ledger using Artificial Intelligence

Especially Open Distributed Ledgers that have no administrator with any possibility to interact with the decentralized ledger are creating a new challenge to our law systems. The inherent decentralizing aspects make it difficult to define an appropriate jurisdiction. In traditional law, and in absence of any agreement stating otherwise, disputes regarding legal problems involving DLT are normally settled by state courts. But the inherent structure is creating nearly insoluble problems to such state courts.

Transactions are conducted completely independently from the physical location of the involved legal entities. Stakeholders can act in various jurisdictions simultaneously in high anonymity with decentralised storage on large peer-to-peer computer networks. For example Bitcoin with its underlying blockchain has already started to create a supranational economy in which the classical idea of a legal person is obsolete⁵ whereas the supranational law is not really designed to address these new developments yet.

As the courts and states have enormous problems to tackle in these new scenarios there are some ideas how to come into a position to be able to regulate the markets beside self-regulation. One opinion on this jurisdictional issue is: “that at a simple level, every transaction potentially comes under the legislative umbrella of wherever the node exists whether in respect of financial services or data protection.”⁶ Whereas the author also states that this means that blockchains would

⁴ Robert Plant, “Can Blockchain Fix What Ails Electronic Medical Records?” published on April 27, 2017 in the Wall Street Journal. URL: <https://blogs.wsj.com/experts/2017/04/27/can-blockchain-fix-what-ails-electronic-medical-records/>; Nathaniel Popper, Steve Lohr, “Blockchain, A Better Way to Track Pork Chops, Bonds, Bad Paenut Butter?”, published March 4, 2017 in the New York Times. URL: <https://www.nytimes.com/2017/03/04/business/dealbook/blockchain-ibm-bitcoin.html>; Rachel Arthur, “From Farm To Finished Garment: Blockchain Is Aiding This Fashion Collection With Transparency”, published May 10, 2017 by Forbes. URL: <https://www.forbes.com/sites/rachelarthur/2017/05/10/garment-blockchain-fashion-transparency/#4975681774f3>.

⁵ Dima Starodubcev, “Bitcoin created a supranational economy”, published March 17, 2016 on coinfox.info. URL: <http://www.coinfox.info/news/persons/5109-dima-starodubcev-bitcoin-created-supranational-economy>.

⁶ Gregory Brandman, Samuel Thampapillai, “Blockchain — Considering the Regulatory Horizon”, published July 2016 by University of Oxford, Faculty of Law, Business Law Blog. URL: <https://www.law.ox.ac.uk/business-law-blog/blog/2016/07/blockchain---considering-regulatory-horizon>.

then need to be compliant with a potentially unwieldy number of legal and regulatory regimes.

Given this, the locus of a relevant “act” could be unclear as the transactions may have occurred simultaneously in a few different places, which again makes it nearly impossible to determine the competent jurisdiction. The unsolved questions regarding competence of jurisdictions in these new challenges of the new digital economy will become more and more important in our business and private life.

Whether in a distributed ledger, a blockchain consortium or a private blockchain, a deep cooperation and interaction between stakeholders is necessary to take full advantage of the potential. Blockchains are unified platforms with unified processes to maintain its structures. Attention has to be paid to the fact that all information shared between the stakeholders are only used to help the consortium to achieve legitimate goals and not violate competition laws and regulations. In future artificial intelligence could open a completely new field as blockchains will start to operate independently to optimize prices and profits by using the data stored within the ledger and trigger decisions and actions automatically.

For state legislation it is difficult to implement regulations that have to be followed in a system that is outside its sphere of influence and action. An autonomous system maintained and managed by the users themselves over which no state organization has any influence and control might, for example, become a major challenge for competition and anti-trust law in future.

Legislative and Regulative Approaches

Within this new digital economy there is no technical necessity for the stakeholders to be attached to any jurisdiction. The high degree of anonymity of stakeholders in an Open Distributed Ledger is extremely challenging for legislation as — for example — we still do not know the real identity behind “Nakamoto Satoshi” who presented the first concept of bitcoin to the public back in 2008.

Our existing legal frameworks are based on the state’s monopoly on violence. If any actor decides

not to follow the regulator’s regulation he goes to court. But who can we bring to court in a Open DLT?

As a first step for implementing regulations some states defined some rules for self-regulation like Switzerland through the Swiss Crypto Valley Association publishing the ICO Code of Conduct for Switzerland in January 2018. As an example of soft regulations the Code of Conduct addresses the following points:

A. Business Conduct

Members do their business in a responsible and transparent way, and do not engage in practices which would be potentially or factually damaging to the image and interests of the CVA and the ecosystem. Members adhere at all times to the Codes and, beyond it, to the applicable laws and regulations.

B. Diversity and Inclusion

Members do not discriminate in the work environment based upon race, color, gender, sexual orientation, religion, age, national origin, or disability.

C. Books and Records

Members ensure adequate and truthful operating and financial accounting as well as a proper system to record their business files. Members notify the CVA any changes of their address, email, mobile number, domain name.

D. Property Rights

Members respect property rights of others, such as intellectual property rights, brand names or copyrights associated with any crypto valley related business.

E. Governance and Conflicts of Interests

Members implement in their organizations governance policies to ensure proper operation and control and to avoid (potential) situations of conflict of interest.

F. True and Fair Communication

Members commit to full, accurate, timely and understandable communication. In compliance with their confidentiality obligations, members are encouraged to disclose any form of mismanagement, corruption, incident, illegality, wrong-

doing and any other serious infringements of the rules in force at the CVA or of national or local laws, to the CVA Board of Directors.

G. Breaches / Disciplinary Action

Members accept that any breach of the Code can result in disciplinary actions, which, depending upon the nature and severity of the breach, include written warnings, information and/or remediation requests, and — in case of serious breaches — expulsion from the CVA. The Members shall always have the right to be heard and costs shall be allocated to the Member depending on the disciplinary action decided.

H. Transactions

Members shall remunerate transactions on an “arm’s length” basis. Hence, any fees, salaries or “cost-plus” mark-ups shall be comparable with third-party transactions.

Despite the softness of such regulations, it is very difficult to establish a harder regime comparable to traditional regulation of markets. Mainly because the concept of legal entities is nearly impossible to maintain with Open Distributed Ledger Technology. All legal entities that can be defined as such under traditional law are gatekeepers of the underlying blockchain that exists virtually.

As mentioned before, the potential of Open Distributed Ledger Technology can only be presumed today. To quote Leanne Kemp, CEO of Everledger, from the IBM Institute for Business Value report: “At its core, blockchain is a shared ledger that allows participants in a business network to transact assets where everyone has control but no one person is in control”.⁷

Validated supply chains will be available to the consumers, healthcare data will be managed in blockchain consortia models, and financial trading platforms will be managed through blockchains. Smart contracts will facilitate, execute and enforce agreements through blockchain

technology and will guarantee proper fulfilment of the agreement and secure storage of data. This technology will make the use of intermediates and middlemen more and more neglectable.

Further discussing the challenge to regulate Open Distributed Ledger through state authorities we have to answer some questions first. It seems appropriate to start discussion with the most prominent application based in an Open DLT, today still Bitcoin. On-ledger currencies such as Bitcoin are completely different to sovereign currencies, fiat or not. A Bitcoin cannot be exchanged for any commodity as it is not backed by any trusted institution or government. The worth of a Bitcoin is purely a function of the demand in the markets which leads to a significant volatility. For that reason, Bitcoin is traded in the markets more like an asset than a currency.

We should remind us that the main purpose of regulating a currency is to make a currency stable and predictable for international trade. Monetary interventions try to control inflation and to store the value to make a currency a fair medium of exchange. But do we have to ensure the stability of a cryptocurrency? As long as there is reliable market information for consumers we can surely delegate the risks of the volatility to the consumers. It is not a problem for regulators to solve⁸. We should concentrate on the traditional monetary tasks of Governments and their agencies and remember that the vast majority of distributed ledgers operate inside established regulatory regimes.

For example early in the history of Bitcoin there was concern that anonymity would enable money laundering and fraud easily. These concerns have been proven unfounded.

While the Open Distributed Ledger of Bitcoin itself exists outside of regulatory structures, it must be connected to the real world so for example the market value of a Bitcoin can be realized. These bridges or gatekeepers between the DLT

⁷ IBM Institute for Business Value, “Forward Together: Three ways blockchain Explorers chart a new direction”, published as Global C-suite Study 19th Edition. URL: <https://www-01.ibm.com/common/ssi/cgi-bin/ssialias?htmlfid=gbe03835usen>.

⁸ Deloitte. Centre for the Edge, “Bitcoin, Blockchain & Distributed Ledgers; Caught between promise and reality”, published 2016 by Deloitte. Centre for the Edge. URL: <https://www2.deloitte.com/content/dam/Deloitte/au/Images/infographics/au-deloitte-technology-bitcoin-blockchain-distributed-ledgers-180416.pdf>.

and the real world are today subject to existing regulations and have to adhere to compliance requirements.

Through regulation of these gatekeepers' regulators have a powerful tool to indirectly manage the ledger itself. This is regardless of the ledger's content: be it assets, contracts or entitlements. To enable the transfer of ownership of a physical asset recorded with DLT, the ledger itself has to be recognized by the legal system. Regulation of Open Distributed Ledger can effectively be organized by determining which ledger is recognised by the existing legal and regulatory system.

The coming years will show an enormous development of blockchain technology impacting all aspects of life on a day-to-day basis. One of the main challenge for regulators and society is an increasing asymmetry between the blockchain industry, its stakeholders and the legal system and consumer. Today's approach by various governments to implement more and more legal restrictions on the internet will not prove sustainable.⁹

All regulations and restrictions should consider the specific aspects of Distributed Ledger Technologies and Blockchains and not diminish the potential positive effects of economic growth and innovation.

Conclusion

Open Distributed Ledger Technology is opening a challenging new field for legislative regulations

and law enforcement. The decentralized and autonomous technology and structure of the peer-to-peer network and the complete impossibility of direct intervention by any state institutions poses unseen challenges. Blockchains based on DLT might prove to be agnostic to any jurisdictional rules based on traditional legislative understanding. Blockchain consortia using artificial intelligence will go beyond the market structure as we have it today. Artificial Intelligence combined with a blockchain might well trigger decisions and actions automatically and without interference of any blockchain stakeholders in the future.

Even if Blockchains based on DLT itself might give great concern to regulators we still have to remember that most DLT applications are operating within established regimes. The ones existing outside of regulatory structures can be strongly influenced indirectly through regulating the gatekeepers that connect the DLT with the real world. Then all content of the ledger has sooner or later to be transferred into the real world. At this stage regulations can be effective.

Still capacity building has to be emphasized to keep the asymmetry of information between regulators, industry and consumers as small as possible. Self-regulation by the market players will be necessary to support. International coordination of regulations and addressing the problem of missing legislative umbrellas for decentralized databases can only be addressed globally.

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⁹ UNESCO Global Report 2017/2018 "World Trends in Freedom of Expression and Media Development", published 2017 by UNESCO. URL: http://www.unesco.de/fileadmin/medien/Dokumente/Kommunikation/EN_WTR_2017_Executive_Summary_web.pdf.

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LEGAL IMPACT ISSUES GENERATED BY SMART CONTRACTS

Abstract. The evolution of technological progress had also an important impact in the field of law. Traditional legal categories do not always succeed in protecting all the changing needs of legal reality and new questions are being raised which need to be answered. It is necessary to taking into account the increase in cross-border trade that taking place more and more often online. The development of blockchain technology applied to the law has made smart contracts increasingly considered.

This article attempts — without pretensions of exhaustiveness and completeness — to analyze the legislative definition of smart contracts in the various legal systems. An attempt is being made to see whether all smart contracts can be legally considered as full-action legal contracts.

The comparative method, in the absence of uniform and harmonic discipline, helps to find similarities and differences of approach in the various systems of civil and common law. Finally, in the light of the research carried out, an attempt is being made to find a legally sound solution and to answer the question initially asked: when are smart contracts also legal contracts.

Keywords: smart contracts, blockchain, legal validity of smart contracts, foreign legislation on smart contracts in comparison.

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1. Introduction: the impact of new technologies on contract legislation.

In every legal system technology historically had an influence on the contract and on the various dimensions of bargaining. It is questionable which area has suffered the greatest impact, but it is certain that the formation of the contract has been, and continues to suffer, intensely from the procedural and substantive changes imposed or favorite by the use of the new computer systems.

Compared to the past, the advent of digital technologies brings with it an element of diversification further because, in addition to the virtual elimination of distance and size the time of the moment of exchange of consents, the technology

has itself become a contractual content, significantly affecting also the phase of implementation.

It cannot be denied, however, that the more technology has simplified and speeded up the formation of the contract, the more consensus, as a cornerstone of private autonomy, has lost its original meaning to the detriment of formalism. Technology-based procedures have become symbols of consensus and, by means of legal fiction, have been accepted as a substitute for traditions, humanised forms of communication.

The contract must be understood as a legal instrument for the establishment of new relationships, deriving from the synthesis of the declarations of will of the parties.¹

In this perspective, it is useful to briefly examine the limits that the *smart contract* presents compared to the “normal” contracts.

In the context of a contract there are clauses specifying the obligations of the parties and the actions to be taken by them, others governing the rules to be applied in the event of non-compliance,

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¹ Foderini A. Foderini, E-commerce e contratti telematici: la rimodulazione della contrattazione codicistica, on *Cammino Diritto*, 3, 2021, 54—55.

others define the applicable law, the place of jurisdiction, etc.

There are also accessory elements, such as the conditions and terms which are more easily suited to automation, as well as a number of defining clauses as to how certain terms included in the agreement should be understood².

The need to adapt traditional legal institutions to technological changes has led to many questions about *smart contracts*. First of all, the definition of the same, which varies according to the geographical context and the legal system under consideration. To move on to consider the representation and the fundamental and accessory elements of the contract itself.

In addition, the *smart contract*, having to be written in algorithmic terms, must contain instructions on measurable elements. Some parameters dictated by the various legal systems, for example by the Italian legal system called general clauses such as “*good faith*”, “*force majeure*” are certainly not “*computable*” by a machine as they require interpretative intervention and a typically human sensitivity.

Technology has significantly changed our lives and also the legal institutions considered classic. Contract law is proof of this with the emergence of *smart contracts* using *blockchain* technology. The scholars of law cannot remain indifferent to this and more and more questions are being asked in order to govern the factual evolution and legislation in contractual matters.

1.1. The definition of *smart contracts* based on historical and technological evolution until the birth of *blockchain* technology.

The term “*smart contract*” was first published in 1996 by Nick Szabo, even before the introduction of *blockchain*. The initial idea is to incorporate a series of contractual clauses directly into

the *software* with which people relate, automating the performance of contractual services in order to make it impossible to default on contracts³.

The author proposed the introduction of contracts to be attached to the rights to digital goods, the operation of which would be similar to that of circuits made by combinatorial or sequential networks, with the prospect of ensuring that the performance of the contract took place automatically, free from human action.

Szabo also suggested the use of *cryptographic techniques* and *electronic signatures* to ensure security and attribute the authorship of transactions made through *smart contracts*⁴. The classic example taken from Szabo is that of the vending machine, in which the performance of the service as the supply of the drink is regulated only by the internal circuits of the machine⁵.

The next step was to create contracts that can be automatically executed by machines⁶. The contractual text therefore takes an external form other than natural language. The reader for whom these contracts are created is no longer primarily man, but machine⁷. This process has led to the definition of “*data-oriented contract*” then of contracts in which the parties express one or more terms and conditions of the agreement so that they can be executed by a computer⁸.

Further technological steps have been taken and the main differentiation component lies in the execution of the contract: unlike *smart contracts*, the other types of “*computable contracts*” allow human intervention to stop the execution of the same.

The *smart contract* if attested on a *blockchain* can no longer be disregarded upon reaching the conditions laid down in it and, once executed, the transaction regulated by the same is irrevocable⁹.

The term “*smart contract*” has been used to describe virtually every automatically executing

² Sarzana F., Ippolito Sarzana di S. Ippolito, Nicoltra M. Nicoltra, Diritto della blockchain, intelligenza artificiale e IoT, on Guida alle novità, Ipsa, 2018, 104.

³ Szabo N. Smart Contracts: Building Blocks for Digital Markets, 1996 // URL: http://www.fon.hum.uva.nl/rob/Courses/InformationInSpeech/CDROM/Literature/LOTwinterschool2006/szabo.best.vwh.net/smart_contracts_2.htm.

⁴ Sarzana F., Ippolito Sarzana di S. Ippolito, Nicoltra M. Nicoltra, Diritto della blockchain, intelligenza artificiale e IoT, on Guida alle novità, Ipsa, 2018, 91—93.

⁵ Szabo Nick. The idea of Smart Contracts, 1997, available on <http://szabo.best.vwh.net/idea.html>.

⁶ Bellini Mauro. Blockchain Smart Contracts: che cosa sono, come funzionano quali sono gli ambiti applicativi, 2018, available on <https://www.blockchain4innovation.it/mercati/legal/smart-contract/blockchain-smart-contracts-cosa-funzionano-quali-gli-ambiti-applicativi/>.

⁷ Nicotra Massimiliano, Smart contract ed obbligazioni contrattuali: formalizzare il codice per assicurare la validità del contratto, 2018, available on <https://www.blockchain4innovation.it/mercati/legal/smart-contract/smart-contract-ed-obbligazioni-contrattuali-formalizzare-il-codice-per-assicurare-la-validita-del-contratto/>.

⁸ Piatti Lorenzo, Dal Codice Civile al codice binario: blockchain e smart contracts, on Cyberspazio e Diritto, vol. 17, n. 56, 2016, 325—344.

procedure, contract, or agreement built on top of a *blockchain*¹⁰.

2. Experiences of foreign legislation on smart contracts in comparison.

In the absence of uniform or internationally harmonised regulation, it is useful to analyze the various attempts to define *blockchain* technology and *smart contracts* in various countries.

The attention to this issue in the European context has led the European Parliament on 2017 to issue a Resolution highlighting the need to draw up “civil law rules on robotics”.

The Resolution, containing recommendations to the European Commission concerning the subject and highlights, among other things, “the shortcomings of the current regulatory framework also in the field of contractual liability, since machines designed to choose their counterparts negotiate contractual terms, conclude contracts and decide if and how to implement them make traditional rules inapplicable” (2015/2103 8INL)¹¹.

We therefore consider that even within the European Union itself there is no uniform framework of the legislation in question and each Member State, at different times, has tried to legislate independently.

To analyze the definition of the *smart contract* it became fundamental define the basic terms like “*blockchain*” and “*smart contract*”. It is useful to consider some definitions provided by the various countries from a comparative analysis perspective.

2.1. First example of legal recognition of the blockchain and smart contract: Republic of Belarus

With the implementation of the Decree on the Development of the Digital Economy, Belarus has become the first country ever to adopt a regulatory framework for the *blockchain* industry¹².

Belarusian parliamentarians definitively approved the presidential decree called the “*Digital Economy Development Ordinance*” on 21 December 2017¹³.

In particular, the decree makes legal in the Republic concepts (and activities) such as *cryptocurrencies*, *lock-ups* and “*smart contracts*”, as well as new tools to carry out investment transactions. This Bill has provided for the creation of a Hi-Tech Park (HTP) to cater and nourish *blockchain* and *cryptocurrency-based* business. The Bill provides for the categorization of the HTP as a special zone with special tax and legal regime for the businesses based on *blockchain* and *cryptocurrency*. The further *blockchain* law imposed by the government in 2018 focused on the prevention of terrorism financing, money laundering and propagation of weapons of mass destruction by means of any blockchain-related activities¹⁴.

2.2. Regulations of smart contract in the EU countries: Malta, Italy;

In the European Union, the first regulatory framework it was approved by Malta in 2018 includes *smart contracts* and related applications, also decentralized autonomous organizations (DAOs), or other similar projects in the wider category of “*Innovative Technology Arrangement*” which includes all solutions and architectures that are based on distributed ledger technologies¹⁵.

Malta has passed three acts: 1) Malta Digital Innovation Authority Act (MDIA Act); 2) Innovative Technology Arrangement and Services Act (ITAS Act) and 3) Virtual Financial Assets Act (VFA Act).

The MDIA Act establishes the legal legitimacy of the DLTs (Distributed Ledger Technology), the internal governance of the processes and outlines the duties and responsibilities of competent authorities to certify the platforms being in use. This act also provides legal certainty for prospective users to make use of any established DLT platform¹⁶.

⁹ Capaccioli Stefano, Smart contracts: traiettoria di un'utopia divenuta attuabile, on *Cyberspazio e Diritto*, vol. 17, n. 55, 2016, 25–45.

¹⁰ Sarzana F. di S. Ippolito, M. Nicoltra, *Diritto della blockchain, intelligenza artificiale e IoT*, on *Guida alle novità*, Ipsoa, 2018, 91.

¹¹ URL: https://www.europarl.europa.eu/doceo/document/TA-8-2017-0051_EN.html.

¹² Cantisani L., *Blockchains and smart contracts: general overview, and aspects of governance and liability*, LL.M. Sushma Sathyanayanan, 27, available online.

¹³ URL: <http://eng.belta.by/infographica/view/digital-economy-development-ordinance-3071/>.

¹⁴ URL: <http://www.park.by/topic-faq/?lng=en>.

¹⁵ Cantisani L. *Blockchains and smart contracts: general overview, and aspects of governance and liability*, LL.M. — Sushma Sathyanayanan, 29, available online.

¹⁶ URL: <https://parlament.mt/media/94210/bill-45-malta-digital-innovation-authority-bill.pdf>.

The ITAS Act deals with the certification of DLTs that are established for the purposes of companies involved in *cryptocurrency* trading¹⁷.

The VFA Act is exclusively enacted for the purposes of governing the ICO trading. It is intended to have a regulatory authority over companies or individuals who engage in trading in *cryptocurrencies*, ICO trading, providing wallet facilities for *cryptocurrencies* etc¹⁸.

The Virtual Finance Assets Bill and Malta Digital Innovation Authority Bill defined smart contract as “a form of innovative technology arrangement consisting of: (a) a computer protocol; and, or (b) an agreement concluded wholly or partly in an electronic form which is automatable and enforceable by execution of computer code, although some parts may require human input and control, and which may also be enforceable by ordinary legal methods or by a mixture of both”.

The Innovative Technology Arrangements and Service Bill lists out the governance provisions made for *smart contracts*¹⁹.

In Italy has not yet adopted specific legislation in this area, but in the Decree Law no. 135/2018 converted into Law no. 12/2019 it was introduced a regulatory definition of “*distributed register technologies*” and “*smart contract*”, providing that the storage of a computer document through the use of technologies based on distributed registers produces the legal effects and admissibility as evidence in judicial proceedings of electronic time validation pursuant to Article 41 of EU Regulation No 910/2014²⁰.

In particular, the article 8-ter of the Italian law provides that “technologies based on distributed registers are defined as technologies and computer protocols that use a shared, distributed, replicable, simultaneously accessible, architecturally decentralized register on cryptographic bases, such as to allow the recording, validation, updating and archiving of data both in plain text and further protected by cryptography verifiable by each

participant, which cannot be altered or modified”²¹.

In the second paragraph of the article is provided the definition of *smart contracts*: “smart contract is a computer program that operates on technologies based on distributed registers and the execution of which automatically constrains two or more parts based on predefined effects from them. Smart contracts meet the requirement of the written form after computer identification of the interested parties, through a process having the requirements set by the Agency for Digital Italy with guidelines to be adopted within ninety days from the date of entry into force of the law converting this decree”²².

The regulatory framework in Italy is still incomplete because it just defined the *smart contracts* and set the boundaries of their legal validity. *Smart contract* are deemed by law to be equivalent for certain purposes to traditional written contracts to the extent that the digital authentications of the parties is made in accordance with the procedure to be established by AgID (Agency for Digital Italy or “*Agenzia per l’Italia Digitale*”)²³.

2.3. Regulations of smart contracts in the Non-EU countries: Republic of San Marino, Gibraltar.

In the Republic of San Marino it was adopted the Delegated Decree no. 37 on 27 February of 2019 in order to regulate the *Initial Token Offerings* and gave a precise definition of *blockchain* at the Article of the Law. It establishes that “a Distributed Ledger composed of validated and confirmed transaction blocks organized in a sequential chain to which only new blocks can added through the use of connections based on cryptographic hash functions or equivalent technologies designed to be able to withstand tempering and provide an immutable archive of the transactions recorded.”²⁴

The Gibraltar in 2017 adopt the “*Financial Services (Distributed Ledger Technology Providers) Regulations 2017*” where aimed at providing businesses or companies who intended to engage in

¹⁷ URL: <http://parlament.mt/media/94207/bill-43-innovative-technology-arrangements-and-servicesbill.pdf>.

¹⁸ URL: <http://parlament.mt/media/94209/bill-44-virtual-financial-assets-bill.pdf>.

¹⁹ URL: <http://parlament.mt/media/94207/bill-43-innovative-technology-arrangements-and-servicesbill.pdf>.

²⁰ Law no. 12 of 11 February 2019 “Conversion into law, with amendments, of Decree-Law No. 135 of 14 December 2018 laying down urgent provisions on support and simplification for businesses and for public administration”, on Official Journal No. 36 of 12 February 2019.

²¹ URL: <https://www.gazzettaufficiale.it/eli/id/2019/02/12/19G00017/sg>.

²² URL: <https://www.gazzettaufficiale.it/eli/id/2019/02/12/19G00017/sg>.

²³ The “AgID” is a governmental agency whose mandate is pursuing the highest level of technological innovation in the organization and development of public administration and in the service of citizens and business. See URL: <https://www.agid.gov.it/>.

²⁴ URL: <https://www.consigliograndeegenerale.sm/on-line/home/archivio-leggi-decreti-e-regolamenti.html>.

the service provision through distributed ledger technology to obtain a license to carry out a controlled and regulated form of business of the service provision²⁵.

The Act also focuses on disciplining such businesses from a financial aspects as a part of the *Gibraltar Financial Services Commission* (GFSC)²⁶. The legislation of Gibraltar — inspired from Malta model — is trying to give a legal status to *smart contract* and to incorporate it into the *blockchain* framework.

3. Reflections on the legal validity of smart contracts in the various legislations.

It's important to consider that most *smart contract* do not create legal contracts. However, *smart contracts*, used by multiple parties may become binding legal contracts based upon the parties, their actions and decisions and the specific legal system at issue²⁷.

Most types of *smart contracts* will suffer from formation defects that prevent them from being valid and enforceable legal contracts. Although contract information is a matter of state law, and the elements of what comprise an enforceable agreement vary by jurisdiction, valid contracts generally require offer, acceptance, consideration, mutuality of obligation, legal subject matter, sufficient specificity of essential terms, competency and capacity²⁸. This principle applies to both countries of common law and those of civil law.

It is possible that some *smart contracts*, like some conventional natural language contracts, may be legally effective in some jurisdictions, but not in others.

Certain *smart contracts* may be legally classified as “gifts” or “nonconsensual transfers”, which are not contracts. Other *smart contracts* may lack necessary formalities to be enforced, such as agreements which must be notarized to be effective or which must be in writing to be effective.

Bare smart contract code will generally lack all of the elements necessary to establish that *smart contract* as a legal agreement. One threshold issue

is identification and qualification of the parties to the *smart contract*.

On the basis of this, it is necessary to distinguish public and private blockchain platforms. Most public open network *blockchains* and *smart contracts* do not require participant identity verification. It is difficult to enforce an agreement against a party whose identity is unknown. It is important to understand the mechanisms for recognizing the identity of contractors and the application of the rules on representation. Formation defects discovered after execution of the *smart contract*, including lack of competency or lack of capacity of a counterparty, may prevent enforcement of an otherwise valid *smart contract*.

Similarly, *smart contract code* may only indicate one side of a two-sided exchange, that is, the transfer of assets from party A to party B upon the occurrence of event X²⁹.

Smart contracts that include extrinsic documentation of the interested parties' identity, intent, and purpose, or which are integrated into broader natural language agreements, are more likely to be considered enforceable agreements or elements of enforceable agreements. In those contexts, court will look to the broader agreements to discern the terms of those *smart contracts*. In fact, in the absence of specific legislation it will be up to the courts to resolve doubts about the legal validity of smart contracts.

Another aspect to consider is although a court may determine that the *smart contract* created a valid legal agreement, that valid *legal smart contract* may be unenforceable *ex post*. The parties to the agreement may have been forced to agree under duress, or ad a result of undue influence, misrepresentations, or fraud. The agreement, while facially enforceable may be void for violation of public policy, or unconscionable. The *ex ante* validity of a smart contract does not guarantee *ex post* enforceability³⁰.

3.1. Considerations of the Italian and American doctrine

Based on what is exposed and considered before the question is if the *smart contract* represent

²⁵ URL: [http://www.gfsc.gi/uploads/DLT%20regulations%20121017%20\(2\).pdf/](http://www.gfsc.gi/uploads/DLT%20regulations%20121017%20(2).pdf/).

²⁶ Cantisani L., *Blockchains and smart contracts: general overview, and aspects of governance and liability*, LL.M. — Sushma Sathyanayanan, 30, available online.

²⁷ Chamber of Digital Commerce, *Smart Contracts: Is the Law Ready?*, 2018. URL: <https://digitalchamber.org/smart-contracts-whitepaper/>.

²⁸ Chamber of Digital Commerce, *Smart Contracts*.

²⁹ Chamber of Digital Commerce, *Smart Contract*. 102—105.

³⁰ Chamber of Digital Commerce, *Smart Contracts*. 226.

a legally contact and as such governed by the relevant legislation or is it a different legal act?

According to the first Italian doctrine we can affirm that the *smart contract* is a legal contract if certain legal requirements are complied with³¹. Some authors³², while acknowledging the legal validity of smart contracts, tend to distinguish between the figure of “*smart contract*” and “*legal smart contract*”.

The answer is also based on regulatory provisions of Italian Civil Code³³. In particular, the reference base is the articles 1321 and 1322 of the Italian Civil Code. For Italian legal system the contract is an agreement between two or more parties to establish, regulate or extinguish a legal relationship between them³⁴. The principle of contractual autonomy³⁵ allows contracts to be concluded whose content is freely determined between the parties and the consensual principle considers the agreement concluded on the basis of a simple exchange of will (subject to the exceptions provided for real contracts)³⁶.

Some authors³⁷ have hypothesized that the *smart contract* represents an example governed by article 1326 of the Civil Code³⁸. Reference is made to the contractual mechanism of the offer to the public. In such a case, the proposer shall make the proposal which, in addition to being characterised by the vagueness of its addressees,

must also contain all the essential requirements of the contract.

The contractor, after having become aware of the offer and having evaluated it, communicates its membership through the use of the electronic device. Although the contract must be considered concluded at the time when the offeror becomes aware of the acceptance, the question arises as to whether the former, generally, mediated the use of *smart contracts*, more than the acceptance becomes aware of the performance of the service.

This question — if the *smart contract* represent a legally contact — has been answered positively also by American doctrine³⁹ in the following terms. It must be borne in mind that American law belongs to the family of common law with the necessary peculiarities of the system in which contract law is reserved for the competence of the various States in addition to common rules and principles. For some States it also validates *smart contracts* as contracts similar to the conventional paper written contracts and assigns a legal status to these contracts making them admissible in courts⁴⁰. For others it is the State by law to providing legal status for all transactions carried out through *smart contracts*⁴¹. And then the discipline of *smart contracts* can be found in the specific acts of the various legislations, in some cases specifically dedicated to⁴².

³¹ Sabato D. Di, Gli smart contracts: robot che gestiscono il rischio contrattuale, on *Contr.impr.*, 2017, 2, 378.

³² Piatti L., Dal Codice Civile al codice binario: “blockchains” e “smart contracts”, on *Cib. Dir.*, 2016, 3, 325 e S. CERRATO, *Contratti tradizionali, diritto dei contratti e smart contract*, on AA.VV., *Blockchain e smart contracts*, 279.

³³ Sarzana F. di S. Ippolito, M. Nicoltra, *Diritto della blockchain, intelligenza artificiale e IoT*, on *Guida alle novità*, Ipsa, 2018, 91ss.

³⁴ Article 1321 of the Italian Civil Code.

³⁵ Article 1322 of the Italian Civil Code.

³⁶ Sarzana F. di S. Ippolito, M. NICOLTRA, *Diritto della blockchain, intelligenza artificiale e IoT*, on *Guida alle novità*, Ipsa, 2018, 101.

³⁷ Cuccuru P., “Blockchain” ed automazione contrattuale. Riflessioni sugli “samrt contract”, on *Nuova giur. Civ. e comm.*, 2017, 2, 111.

³⁸ In accordance with Art. 1326 paragraph 1 of Italian Civil Code the contract shall be deemed to have been concluded when the person who made the proposal is aware of the acceptance of the other party.

³⁹ Werbach Kevin e Cornell Nicolas, *Contracts Ex Machina*, marzo 2018, disponibile su SSRN: URL: <https://ssrn.com/abstract=2936294>, 2018, 22.

⁴⁰ The State if Arizona defines smart contract in the House Bill 2417 as “an event- driven program, with state, that runs on a distributed, decentralized, shared and replicated ledger and that can take custody over and instruct transfer of assets on that ledger”. RL: <http://legiscan.com/AZ/text/HB2417/2017>.

⁴¹ The State of New York has pending General Assembly Bill 8780 which aims at providing legal status for transactions. URL: <http://legiscan.com/NY/drafts/A08780/2017>.

⁴² The State of Nebraska adopt Legislative Bill 695 that defines smart contracts as “an event driven program or computerized transaction protocol that runs on a distributed, decentralized, shared, and replicated ledger that executes a contract or any provision or provisions of a contract by taking custody over and instructing transfer of assets on the ledger”. URL: <http://legiscan.com/NE/text/LB695/2017>.

The *smart contract* represents the transposition of the will of the parties into software code that can be executed by the machines and from the point of view of content appears fully attributable to the notion of contract established by the national legal system⁴³.

The main difference will be in the language in which the *smart contract* is expressed. Natural language is replaced by a language intended for the machine, which may still contain terms and conditions governing a legal relationship of assets⁴⁴.

When a smart contract is submitted to the national judicial authority, it will be able to examine it in the light of the provisions of the applicable legal system governing the subject matter of contracts.

This means that the *blockchain* is not an autonomous legal system in its own right, it cannot legitimize agreements that are contrary to the applicable legal rules, even if the agreements it allows to be created are automatically enforceable⁴⁵.

We can say the automatic execution mechanism is, merely, a facilitating tool for the execution of the contract in certain cases. This does not alter the fact that, if the contract is invalid under the legal rules applicable to it, this will entitle you to the repetition of the services performed in accordance with the regulatory criteria⁴⁶.

4. Conclusions.

Currently there are several difficulties and obstacles to having linear and similar legislation on *smart contracts*. We have seen that the definitions are also different from state to state also within EU countries and not only those outside the European Union.

The proposal may be to develop a uniform formal language for the drafting of contracts that

should be both easy to interpret and write, but also executable by the machine.

The contract, originally written in a more natural language, so as to make it attachable in court, would be automatically translated into software code in order to obtain the *smart contract*.

The proposal is very suggestive but not easy to implement in the immediate future if we consider the complexity of the legal systems, the specificities of one system in relation to another and the experiences and attempts at standardisation already made⁴⁷.

However the examples of standardization of clauses already exist in international trade:

- INCOTERMS or International Commercial Terms (of International Chamber of Commerce)⁴⁸;
- The Principles of International Commercial Contracts, most frequently referred to as UNIDROIT Principles or PICC⁴⁹;
- United Nations Commission on International Trade Law (UNCITRAL)⁵⁰.

Certain countries are trying to provide a definitions or basic regulation for *smart contracts*. The borderless *smart contracts* make it difficult to ascertain a standard rule or even a legal status for its operations⁵¹.

For this reason the UNICITRAL is developing rules on the role of electronic communication, trying to categorize the information in the *smart contracts* as offer and acceptance. Once the transaction is expressed and stored in a block, the contract is signed and is a legally enforceable.

Some authors⁵² considered the passage of the Electronic Transactions (Amendment) Bill in the Parliament of Singapore to enact the UNICTRAL Model Law on Electronic Transferable Records “marks a milestone in the development of the law of digital economy”. In fact, Singapore was one of

⁴³ Cuccuru P., “Blockchain” ed automazione contrattuale. Riflessioni sugli “samrt contract”, on Nuova giur. Civ. e comm., 2017, 2, 111.

⁴⁴ Sarzana F. di S. Ippolito, Nicoltra M., Diritto della blockchain, intelligenza artificiale e IoT, on Guida alle novità, Ipsa, 2018, 103.

⁴⁵ Primavera De Filippi & Samer Hassan, “Blockchain Technology as a Regulatory Technology. From Code is Law to Law is Code”, 2016, in URL: <http://firstmonday.org/ojs/index.php/fm/article/view/7113>, 88.

⁴⁶ Sarzana F. di S. Ippolito, Nicoltra M., Diritto della blockchain, intelligenza artificiale e IoT, on Guida alle novità, Ipsa, 2018, 101.

⁴⁷ Sarzana F. di S. Ippolito, Nicoltra M., Diritto della blockchain, intelligenza artificiale e IoT, on Guida alle novità, Ipsa, 2018.

⁴⁸ URL: <https://iccwbo.org/resources-for-business/incoterms-rules/incoterms-2020/>.

⁴⁹ URL: <https://www.unidroit.org/instruments/commercial-contracts/upicc-model-clauses>.

⁵⁰ URL: <https://uncitral.un.org/>.

⁵¹ Cuccuru P., “Blockchain” ed automazione contrattuale. Riflessioni sugli “samrt contract”, on Nuova giur. Civ. e comm., 2017, 2, 107;

the first countries in adopting the Model Law on Electronic Commerce and the United Nation Convention on the Use of Electronic Communications in International Contracts and in an early enactor of the Model Law on Electronic Transferable Records.

A similar work could be carried out with regard to smart contracts, codifying a set of defined clauses which have the task of formalising at legal and software level a series of obligations that the

parties typically assume in the context of individual contracts, thus facilitating the adoption of those clauses.

In conclusion — considering what was first examined to the notice of the writer — smart contracts to be considered a legal contracts must be subject to the rules of a given state or an international convention, identified according to the criteria of private international law⁵³.

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18. URL: <https://parlament.mt/media/94210/bill-45-malta-digital-innovation-authority-bill.pdf>.

⁵² Castellani Luca, Adoption of UNICTRAL model law heralds a quiet revolution in digital trade, available on URL: <https://www.businesstimes.com.sg/opinion/adoption-of-uncitral-model-law-heralds-a-quiet-revolution-in-digital-trade>, 2021.

⁵³ Sarzana F. di S. Ippolito, Nicoltra M., *Diritto della blockchain, intelligenza artificiale e IoT*, on *Guida alle novità*, Ipsa, 2018, 106.

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S. I. Kodaneva*

THE TRANSFORMATION OF COPYRIGHT UNDER THE INFLUENCE OF THE DEVELOPMENT OF DIGITAL TECHNOLOGIES

Abstract. Goal and objectives: Digital technologies are radically transforming modern creativity. Artificial intelligence creates new works, which raises the question of revising approaches to the basics of copyright. The relations related to the implementation of traditional copyrights in relation to the content on the Internet are also undergoing transformation. The purpose of this study is to analyze the key changes in these areas. The task is to determine the main directions of copyright transformation.

Scientific significance: Due to the fact that the legislation does not have time to adequately respond to the challenges of new technologies and public relations based on them. This is largely due to the fact that these challenges do not fit into the existing copyright doctrine. This requires the formulation of fundamentally new approaches to solving the problems of copyright protection of works.

Methods: The study uses theoretical and empirical methods: the study and analysis of scientific literature, systematization, generalization, method of comparative analysis, analogy.

Main conclusions: It is proposed to increase the requirements for the originality of works created with the use of technical means and for the purpose of recording life situations and communication (for example, photos in social networks), as well as to consider the legislative distinction between two types of works: those created by Internet users solely for the purpose of communication (by establishing an alleged open license for such works) and original works whose authors are interested in legal protection (by providing for them mechanisms for legally significant registration). It is concluded that the self-regulation established by the platform operators partially solves the problems identified in the article, however, it is necessary to legally limit the possibilities of such self-regulation by general principles and ethical norms aimed at protecting the interests of copyright holders. At the same time, it is advisable to consider increasing the responsibility of platforms as active intermediaries in the distribution of copyrighted content. The main approaches to determining the legal status of neural art are considered. It is concluded that there is a need for a radical transformation of copyright in this area. As a protection mechanism, it is proposed to use more flexible contractual regulation, such as software licenses.

Keywords: Copyright; digital economy; social media; safe harbor; information intermediary; sharing user-generated content; Artificial intelligence; neural art; soft law.

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Introduction

Modern digital technologies are gradually, imperceptibly, but radically transforming the world around us, penetrating deeper and deeper into our daily life. The ways of communication, doing business, self-realization in creativity are changing. Moreover, these changes concern not only tools, when the brush in the artist's hand turns into a computer mouse, and the canvas — into a monitor screen.

The creative process itself is changing, in which algorithms are playing an increasing role. For example, in the fashion industry, digital technologies

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are already penetrating all stages of the creation and implementation of new collections.

Artificial intelligence analyzes data from social networks and determines future fashion trends. Modern platform solutions completely transform the manufacturing business processes, algorithms build new communications with consumers. But, more importantly, artificial intelligence algorithms (hereinafter referred to as AI) are used by designers to solve a wide variety of tasks, from automating routine functions (for example, turning a sketch, a sketch into a full-fledged 3D model of a future thing) and ending with the automatic creation of new models (In particular, based on the fashion trends database of social networks). Thus, artificial intelligence becomes a designer, artist or composer, creating new works.

The relationship associated with the implementation of traditional copyright in relation to content located on the World Wide Web is also undergoing transformation. The advent of the Internet, on the one hand, allowed people to communicate without borders, share their thoughts, photographs and creativity in all its forms. However, this also led to the fact that the amount of such “creativity” posted for general information is growing exponentially, including numerous reposts and uploading other people’s works to the Network on their pages in social networks.

So it becomes extremely difficult, on the one hand, to control the distribution and protect their copyrighted content, and, on the other hand, for conscientious users to find the author and obtain the necessary consent from him.

All these trends lead to the fact that the institution of copyright is constantly facing the most diverse and unexpected challenges, in response to which it is forced to transform. Moreover, many technological innovations raise the issue of erosion of copyright protection as an institution of law.

The framework of the article does not allow dwelling in detail on all the variety of problems that exist today in this area, therefore, we will consider two of them: the effect of copyright in social networks and neural art.

Copyright on the Internet

Copyright as such derives from international law. Most of the current legislation of almost all countries of the world, including Russia, reflects the obligations of the member states under the Berne Convention,¹ as well as under other international agreements, which are aimed at establishing a regime granting exclusive rights to the author / copyright holder based on several fundamental principles.

First, copyright is granted without any formal requirements. Article 5 (2) of the Berne Convention states: “The enjoyment and exercise of these rights is not related to the implementation of any formalities.” Registration is not a prerequisite in order to enjoy full copyright protection.

Secondly, intellectual property is protected by the concept of property guaranteed by Article 1 of Protocol No. 1 to the European Convention on Human Rights.² This grants the authors / copyright holders the right to authorize and prohibit the use of the work. Thus, one of the basic principles of copyright is that prior to using a protected work in any way, permission must be obtained from its copyright holder.

Third, the author’s right to remuneration is presumed. This is due to the economic dimension of the fundamental right to property, as enshrined in the European Convention on Human Rights. The economic rights of the author are also recognized in Article 6bis of the Berne Convention.

Fourth, in the implementation of copyright, it is necessary to maintain a balance of interests of rightholders and users — a goal that was first mentioned in Article 7 of the TRIPS Agreement “The protection and enforcement of intellectual property rights should promote technological progress and the transfer and diffusion of technology to the mutual benefit of producers and users. technical knowledge, contributing to socio-economic well-being and achieving a balance of rights and obligations ”.

The Preamble to the WIPO Treaty³ also recognizes “the need to maintain a balance between the rights of authors and the interests of the general public, in particular in the fields of education, research and access to information”. In EU law, the provisions on the balance of interests are

¹ Berne Convention for the Protection of Literary and Artistic Works of 1886.

² 1950 Convention for the Protection of Human Rights and Fundamental Freedoms.

³ 1996 WIPO Copyright Treaty.

formulated more specifically. Thus, Directive (EU) № 2019/790 on copyright and related rights in the single digital market states the goal of establishing a balance between intellectual property and other fundamental rights, in particular freedom of expression, freedom of art, freedom of doing business, the right to use protected objects in the field of education; the need to preserve cultural heritage. In addition, a fundamentally new area has been identified: text and data mining.

However, the explosive growth of digital content in recent years and the fact that its authors may be located in different jurisdictions, which, taking into account local legislation, determines the specifics of both copyright protection and legal registration of royalties, raise difficult questions about who actually owns content rights, when and how to arrange the payment of remuneration.

On the one hand, information about copyright holders is scattered across various databases of publishers, record companies, collective management organizations, and others who are not interested in sharing it. At the same time, in the gigantic ocean of information, copyright holders who do not have special resources (such as those of large film concerns or media holdings) find it extremely difficult to find content that violates their rights, and if found, to achieve protection of their rights, to receive remuneration for its use, if such content ended up in a foreign jurisdiction. Or they have to pay between 20% and 50% of their remuneration to various intermediaries.⁴ In such a situation, both copyright holders and bona fide users suffer, who are forced to refuse to use the content of interest to them in a situation of uncertainty of its legal regime.

The reason is largely due to the above principles of copyright, enshrined in international law and implanted in national legislation. First of all, we are talking about the fact that copyright arises automatically at the time of creation of a work, as well as the rights of the author to authorize or prohibit the use of his work, supported by the requirement to obtain prior consent.

All this makes us think about the relevance of a radical transformation of the institution of copyright. First of all, it is necessary to consider the feasibility of protecting the copyright of those

network users who use it exclusively for communication purposes, and, accordingly, do not think about the fact that the content they post is copyright works. In this regard, it is necessary to raise the important question of the originality of such “works”.

The nature of social networks as a communication platform has changed the purpose of images and written messages, turning them exclusively into a form of communication (for example, the user shares what he is doing in real time). In addition, the technical capabilities of modern gadgets and platforms (for example, Instagram) allow you to edit images without much creative effort. Should technologically assured “creativity” be given the same protection as copyrighted original works?

It seems that the threshold for originality should be raised above the current standard, or at least interpreted more rigorously than it has been so far. This is possible within the framework of judicial interpretation, since the concept of originality is not rigid and can evolve based on cultural and social content.

In cases where the content fulfills the function of not so much the creative self-realization of the author as the statement of certain life situations or communication, then the real will of the author is aimed at providing a free license to other users of the corresponding Internet community.

On the other hand, when the copyright holder of a work is interested in protecting it and receiving remuneration for its use, it is necessary to create a more effective technical and legal institution for the protection of his rights. It seems that an easily accessible, public and international registration system could solve this problem.

At the same time, it is obvious that such transformations require detailed elaboration at the international level and are associated with amendments to the above-mentioned international agreements. Therefore, social platforms today form their own regulation, enshrined in user agreements.

On the one hand, such self-regulation can be useful, since it allows to solve some of the problems indicated above (In particular, platforms such as Instagram establish that their users provide the platform with a “non-exclusive, royalty-free,

⁴ Tresise A., Goldenfein J., Hunter D. What blockchain can and can't do for copyright // Australian intellectual property journal. Sydney, 2018. Vol. 28. N. 4. P. 144—157.

transferable, sublicensed worldwide license to post, use, distribute, modify, launch, copy, public performance or display, translation and creation of derivative works of your content.” Accordingly, any interested party can obtain permission to use it directly from the platform).

However, on the other hand, the rights of authors are clearly infringed upon (they are deprived of a number of fundamental rights: to prohibit the use of their work, the right to remuneration and the right to inviolability of the work). At the same time, they also cannot change the terms of the user agreement in any way. And even if the content or account is deleted, Instagram retains a license for all previously uploaded content.

In the actions of the platforms, one can see not only a violation of the rights of their users, but also the rights of copyright holders, whose content is downloaded by users of the platform. At the same time, the events of recent years have shown that effective protection of the rights of authors is not guaranteed when it comes to these platforms.

The fact is that initially, when the platform business was just in its infancy, governments in Western countries of technology leaders supported their growth by providing them with protection in the form of the so-called “safe harbor” or, to use Russian terminology, exemption from responsibility of the information intermediary.

However, lawmakers left out the masses of anonymous international users globally sharing content in automated systems created by profit-driven central providers such as YouTube, Rapidshare and Megaupload.

These platforms are interested in a constant increase in the number of users, and therefore in the growth of downloadable content, even if it clearly contradicts statutory prohibitions, while they compete with official providers of copyrighted content such as Spotify, Netflix, etc., which usually get the necessary licenses for it from the copyright holders, while on social media platforms this content is laid out illegally and free of charge, so they become the main place where this content is consumed.

In this regard, the issue of maintaining a balance of interests of rightholders and users on social platforms, including the right to freedom of information and opinion, is especially acute.

For example, in some jurisdictions, the terms of use of social media platforms have been found to be unreasonable. For example, in August 2018, the Paris Court of First Instance ruled that Twitter’s Terms of Service were invalid and unenforceable because they were “offensive” to users. In addition, in April 2019, the Paris Court of First Instance ruled 430 clauses of Facebook’s general terms of use as “offensive and illegal”, stating that “the provisions regarding the transfer of copyright were significantly disproportionate and the conditions regarding user-generated content created by copyright were obscure and confusing”.⁵

Thus, there is a need for a transformation in approaches to excluding the liability of information intermediaries. While the platforms claim to have no influence on what users post to them (“passive” mediation), this is not entirely true. As platforms evolve and gain strength, they gain more and more technical capabilities to control content.

This, in particular, is reflected in the new 2019 YouTube user agreement. Prior to this, the user agreement contained the Manual Claiming Tool, which allowed copyright holders to manually select various protection options, including muting, blocking, transferring all the money earned for viewing content to themselves.

However, in 2019, YouTube said that copyright holders were using their rights too aggressively, therefore, in order to maintain a balance in the ecosystem, the capabilities of the Manual Claiming Tool became limited, however, the possibilities of protection through an appeal to the platform administrator still remain. These changes represent a movement towards the platform’s control over copyright compliance.

It is not surprising that in a number of jurisdictions there is a tendency to increase the responsibility of social media platforms for the content posted on them. In particular, the Court’s case-law proceeds from a broad interpretation of the concept of public communication, considering the operator of a service (platform) to be responsible for providing its users with access to illegal content when such operator plays a “significant role” in ensuring the availability of the works in question.

The court formulated a number of criteria to determine that the platform’s role was

⁵ Boshier H. Key issues around copyright and social media: ownership, infringement and liability // *Journal of Intellectual Property Law & Practice*. 2020. Vol. 15, Issue 2. P. 123—133. URL: <https://doi.org/10.1093/jiplp/jpaa006>.

“substantial”. In particular, the platform “commits an act of communication when it intervenes, fully aware of the consequences of its actions, in order to provide its clients with access to a protected work, especially in cases where, in the absence of this interference, these clients will not be able to enjoy the broadcast work or it will be difficult”.⁶ At the same time, in most of its decisions, the Court looks very broadly at the criterion of “awareness”, emphasizing that there is enough “constructive” knowledge (i.e. “should have known”, since the operators of the online exchange platform cannot fail to know that this platform provides access to works published without the consent of the copyright holders).

It is important to emphasize that, in the Court’s view, the fact that the works available to users of the online exchange platform have not been posted by the platform operator itself, but by its users, does not preclude the recognition that it is the platform operator who communicates such works to the public. Thirdly, the Court emphasized that by implementing the torrent search function, platform operators play an important role in ensuring the availability of works.

This approach of the European Court is gradually penetrating into the legislation. So, in 2019, Directive (EU) No. 2019/790 on copyright and related rights in the single digital market was adopted, article 17 of which establishes the provision that the platform operator, giving its users the right to download content and share it, thereby brings content to the public.

Consequently, the “active” role of operators of social media platforms is legally enshrined. This means that they are no longer covered by the “safe harbor” protection (limitation of information intermediary liability established by Article 14 (1) of Directive (EC) No 2000/31). In addition, the Directive obliges platform operators to obtain permission from the copyright holders of the relevant content, for example by concluding a license agreement.

At the same time, in accordance with paragraph 4 of Art. 17 of the Directive, the platform operator is exempt from liability if it has made every effort to obtain permission, and in the absence of success, has made every effort to ensure

the unavailability of works in respect of which the rightholders have provided the operator with the relevant and necessary information.

This new regulation was deemed necessary because “online content sharing services that provide access to a large amount of copyrighted content uploaded by their users have become the main source of access to content on the Internet,” and legal “uncertainty affects the ability of rightholders to determine whether and under what conditions their works and other objects are used, as well as their ability to receive appropriate remuneration for such use.”

Thus, in conjunction with the established case-law of the European Court of Justice, Article 17 of the Directive constitutes a fairly good liability instrument for platform operators to enhance the protection of copyright holders.

Transformation of copyright protection of neural network creativity.

In the past few years, algorithms have emerged that have allowed designers to expand their creativity. Artists around the world have begun using deep neural networks to create art that is commonly referred to as “neural art” or “AI art.” Cases of creating new works based on an in-depth analysis of previous works by one or another author (for example, the painting “New Rembrandt” or the novel “Only Once” in the style of the best-selling author Jacqueline Suzanne) deserved widespread discussion. Another well-known case was the sale in 2018 at Christie’s auction for \$ 432,500 of the painting “Portrait of Edmond Bellamy”, created in the style of artists of the 18th century. These examples most clearly demonstrate the trend of increasing the “creativity” of algorithms. This allows us to speak about the emergence of a “creative avatar” — algorithms capable of creating “human-like” creativity.

Obviously, this phenomenon does not fit into the framework of traditional copyright, in particular, the above basic principles — the presumption of human authorship, his ownership of the created work, the right to remuneration and the right to authorize or prohibit the use of his creation, since the algorithm is not able to implement none of them.

⁶ Bäcker K., Feindor-Schmidt U. The destruction of copyright—are jurisprudence and legislators throwing fundamental principles of copyright under the bus? // *Journal of Intellectual Property Law & Practice*. 2021. Vol. 16, Issue 1. Pages 41—55. URL: <https://doi.org/10.1093/jiplp/jpaa209>.

The approaches proposed in the scientific discussion are not an ideal solution in this situation. The concept of the legal personality of an artificial algorithm and, as a consequence, the recognition of copyright for it is the most controversial.⁷

However, such a presumption implies not only the recognition that the neural network created the original work, but also the fact that it is capable of making informed decisions about the disposal of the rights to it. It is quite possible that in the long term the algorithms will become so intelligent that they will be able to realize such possibilities, however, at present, the level of technical development does not allow this.

Accordingly, it seems that it is too early to talk about the recognition of the legal personality of artificial intelligence as the author of works. For the same reasons, it seems not entirely acceptable approach, according to which it is proposed to equate the creativity of neural networks with service works, using the metaphor of an employee to whom the employer gives a task.⁸

The fact is that this decision is based on a model of an employment contract, by signing which, the employee agrees (directly or indirectly) to assign exclusive rights to the works created by him in the framework of his labor activity to the employer for appropriate remuneration. However, as indicated above, the algorithm is unable to express such an expression of will nor to accept the reward.

Another approach is alleged authorship. At the same time, the greatest controversy is related to who owns this “authorship” — the developer of the algorithm⁹ or its user (who gives instructions, selects and loads data).¹⁰ It seems that when solving this issue, one should proceed from the fact which person made the greatest contribution to the creation of a new work.

Accordingly, it is obvious that the developer of the neural network is the least suitable for the role of the “alleged author”, since he creates only an algorithm that can be used repeatedly and create a variety of works depending on what data will be loaded into it. But one more person appears who can be considered as the “alleged author” — the author of the original works, since it is his works that are used as the original. At the same time, the new work created by the neural network will obviously be derivative in relation to the original works.

At the same time, it should be recognized that the test for “proximity” can not always give unambiguous solutions, especially if there is a long period of time between the completion of the original work by the human author and the creation of the derivative work by the AI program.¹¹

The situation becomes even more complicated if the works of several authors are used as the initial ones, since it is not clear which of them the algorithm used more and which less. Especially if the new work really has a sufficient level of originality.

At the same time, this situation raises another extremely significant issue related to the protection of the rights of the authors of the original works, since derivative works created by artificial intelligence, which seek to reproduce the “style” and “feeling” underlying the creativity of an individual author, can potentially lead to violation of his rights, since in fact the creation of a derivative work takes place, which is possible only if a license is obtained from the copyright holder of the original work.

Accordingly, the user of artificial intelligence is obliged, before downloading the original work, to obtain the rights to do so, which is often quite difficult to do technically, especially in cases of applied creativity, when the algorithm can be

⁷ Laptev V. A. The concept of artificial intelligence and legal responsibility for its work // Law. Journal of the Higher School of Economics. 2019. No. 2. P. 79—102; Morhat P. M. Legal personality of artificial intelligence units. Civil law research. Moscow: UNITY-DANA, 2018. 420 p.

⁸ Yanisky-Ravid Sh. Generating Rembrandt: Artificial Intelligence, Copyright, and Accountability in the 3A Era — the HumanLike Authors Are Already Here — a New Model // Michigan State Law Review. 2017. Vol. 4. P. 659—726.

⁹ Sinelnikova V. N., Revinsky O. V. Rights to the results of artificial intelligence // Copyright. 2017. N 4. P. 24—27.

¹⁰ Kasap A. Copyright and Creative Artificial Intelligence (AI) Systems: A Twenty-First Century Approach to Authorship of AI-Generated Works in the United States // Wake Forest Journal of Business & Intellectual Property Law. 2019. Vol. 19, N 4. P. 335—380. URL: <https://ssrn.com/abstract=3597792>.

¹¹ Lim E. C. Meet my artificially-intelligent virtual self: creative avatars, machine learning, smart contracts and the copyright conundrum // Journal of Intellectual Property Law & Practice. 2021., Vol. 16, Issue 1. P. 66—78. URL: <https://doi.org/10.1093/jiplp/jpaa192>.

designed in such a way that it will draw the initial data directly from the Internet.

Finally, a number of authors propose to exclude works created by neural networks from the copyright sphere altogether. One cannot agree with this approach, since the automatic transfer of such works to the public domain will lead to the fact that the interests and investments of the people who organized their creation will be unprotected, which may negatively affect the development of artificial intelligence technologies.

Thus, it should be recognized that all of the above approaches do not fit into the framework of existing copyright law and requires its serious transformation, which, as in the case of copyright on the Internet, requires a long study and agreement at the international level.

In this regard, it seems that the best option would be to use a license agreement design similar to that used for software when a user downloads it from the Internet: users must give their consent to use the software before operating it. At the same time, the exclusive rights to software and works created with its help are distinguished (for example, literary works printed by the author in the Word program).

This construction is more flexible than traditional copyright and allows the creator of the algorithm, the user and, if necessary, the authors of the original works, to settle their relationships in the most optimal way, including the conditions for the division of remuneration for the implementation of works created by the neural network.

In addition to this legal mechanism, it is advisable to use modern technical means of protection, for example, digital watermarks, in which information can be recorded that a given work was created by a neural network, as well as about all persons who contributed to its creation (the algorithm developer, its users and authors of the original works). In addition to this, it would be advisable to provide for the registration of AI works in a special registry.¹²

Conclusion

In summary, it should be emphasized that the rapid development of technology, as well as the variety of platforms created on the Internet, affects the most diverse aspects of authorship, constantly raising new issues and creating new challenges for traditional copyright. Obviously, this will sooner or later lead to a serious transformation of many copyright protection institutions.

At the same time, comprehension of the ongoing transformations and the development of adequate legal instruments require serious and long-term work, including the coordination of new approaches at the international level, since most of the copyright norms are initially enshrined in international legal acts. In this regard, it seems extremely important to use more flexible tools such as judicial interpretation, increased use of license agreements and self-regulation on the Internet. The task of law at the present stage is to determine the legal and ethical framework for such instruments of “soft law”.

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¹² Kharitonova Yu.S. The legal regime of the results of the activity of artificial intelligence // *Modern information technologies and law: monograph / Moscow State University. M. V. Lomonosov. Faculty of Law*; otv. ed. E. B. Louts. Moscow: Statute, 2019, P. 68—83.

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A.Yu. Kiryanov*

PROBLEMS OF IMPLEMENTATION OF PUBLIC CONTROL IN THE DIGITAL ECONOMY

Abstract. The article considers the main directions of interaction between the public Chamber of the Russian Federation and regional public chambers in the field of public control. Given that the theory and practice of public control in the system of public chambers is not sufficiently developed, the author pays special attention to the forms and methods of interaction, especially public control, which is much less formalized. The author also notes the need to use digital economy tools, which will become a stabilizing factor in the transition period, during which relations between a person, government and society will be formed under the new Social Contract.

Keywords: control, society, public chamber, forms, methods, legal regulation.

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The digital revolution, the use of fundamentally new technologies in the economy and public administration inevitably raises the question of a qualitative change in social relations. The transparency of the processes associated with the economic basis of the life of society, the transparency of each citizen of a particular country inevitably raises the question of new ideals of social justice, the issues of combating poverty and reducing the gap between the poor and the rich; Ultimately, digitalization prompts social forces to formulate new principles and paradigms of the social contract, to search for a new role and place of the state in relation to the private life of a citizen.

The prospects of the digital revolution, its value to humans, have boundary conditions in the form of the presence of civil society institutions and mechanisms of public (civil) control.

The system of public control in Russia is just being created. It is worth agreeing with the conclusion that a distinctive feature of public control is its weak structure, lack of formalization and

normative regulation, irregular implementation, limited scope of application¹. For the implementation of public control, two factors are distinguished: the presence of a developed civil society, as well as the conditions for interaction between the state and civil society, in which they are presented as equal subjects.

Public control in the system of communications between the state and citizens is becoming an increasingly important element. In practice, today we can already see the result of the activity of civil society in various spheres of public life and the exercise of control functions by civil society through legislatively enshrined mechanisms of public control, the main subjects of which are

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¹ Fedorov V. V. Public control over the activities of the penal system as a form of interaction between civil society and the state. Abstract of thesis. diss. Cand. jurid. sciences. Vladimir, 2006.

public chambers and public councils under executive authorities at all levels.

At the moment, in accordance with the legislation, two branches of public control have been formed in Russia. The first branch is public chambers of all levels.

The Public Chamber of Russia, by virtue of the law, is the subject of public control. Attention should be paid to the issues of regulating the activities of the Public Chamber of the Russian Federation and regional public chambers in connection with the fact that the legislators of the constituent entities of the Federation, despite the general framework of the law, to a certain extent narrow or expand the powers of regional public chambers.

In particular, a number of regional civic chambers are endowed with the rights of legislative initiative in the constituent entities of the federation, and given that the most acute socio-economic conflicts arise simultaneously in several constituent entities in typical situations (housing and communal services, social problems, the rights of the disabled), decisions of individual regional civic chambers are presented very useful for the development and improvement of federal legislation, and for other regions.

The Public Chamber of the Russian Federation², not having the authority of “vertical and subordination” of public chambers, nevertheless, accumulates and analyzes valuable initiatives and summarizes legal techniques, legislative proposals of regional public chambers. Special attention should be paid to issues of public control in certain spheres of life, which can be discussed at the “platforms” of the Public Chamber of the Russian Federation by representatives of regional public chambers, NGOs and interested citizens.

At the same time, members of the Public Chamber of the Russian Federation take personal part in the work of regional public chambers, thereby being the conductors in general of initiatives of public chambers of the federal and regional levels. To study the history and best practices of the work of public chambers at the Public

Chamber of the Russian Federation, the Council of the Chamber was created, which fixes the process of forming public chambers in the regions, as well as interaction with public councils and other entities at the local government level, provides methodological assistance in the field of public control in the field. ...

In the context of the development of statehood in Russia, the problem of effective and multilateral control over the activities of power structures acquires special significance. Negative phenomena and processes are inevitably reflected in the activities of the authorities in any state. “Growth pains” of the Russian government: abuse of power, bureaucracy, corruption are aggravated by the ability to act at discretion, low professionalism, immorality and legal nihilism of powerful subjects, spiritual and ideological vacuum in society.

Within the framework of the Federal Law “On the Public Chamber of the Russian Federation”, an annual Report on the state of civil society in Russia is being prepared. In particular, the 2017 Report emphasizes: “Recent sociological studies show an increased public demand for justice. No one considers the wealth earned by one’s labor to be unrighteous. But people perceive the inexplicable and inaccessible to the common man a luxurious life extremely painfully ... Citizens are protesting against class everywhere — from medicine to justice, against privileges that allow someone to bypass general rules, trample established norms. The mission of civil society is seen precisely in eliminating such injustice, because unfair inequality has become a brake on the country’s development”.

In addition to the Public Chamber of the Russian Federation and public chambers of the constituent entities of the Russian Federation, this branch includes public chambers (or public councils) under local government bodies. There are about 22,000 local self-government entities in Russia, respectively, in this branch of public control alone, the number of members of public control entities can be estimated at 250,000 — 400,000 active citizens who can initiate public control procedures on the ground.

² Federal Law of 04.04.2005 No. 32-FZ “On the Public Chamber of the Russian Federation” // [Electronic resource] — Access mode: URL: <http://www.consultant.ru/popular/>.

The following can be attributed to the systemic shortcomings of this branch of public control:

- weak / absent vertical coordination of the subjects of public control, including substantive;
- the specificity of the formation of regional and local public chambers (quotas from the executive and legislative branches) presupposes servility of the chambers in relation to the authorities, a weak ability to react to the local agenda;
- poor understanding of their tasks and powers by members of the subjects of public control on the ground due to the lack of training programs and cross-cutting methodological materials.

The second branch of public control is public councils under federal executive bodies and their territorial divisions, executive bodies of the constituent entities of the Russian Federation. At present, public councils under federal executive bodies are formed through an open competition held by the Public Chamber of the Russian Federation, with the exception of a number of structures directly subordinate to the President of the Russian Federation.

Public councils at territorial (subject) bodies are formed by orders of the respective leaders on a non-competitive basis. It should be noted that in the system of the Ministry of Internal Affairs, public councils have been operating on the basis of the Decree of the President of the Russian Federation since 2011, and have been formed up to the level of territorial divisions of the Ministry of Internal Affairs, which constitutes a significant personnel potential of public control.

It should also be noted that, in accordance with sectoral legislation, certain functions of public control in the environmental and housing sector are represented by public environmental inspectors and the system of public housing control. The total staff capacity of members of the subjects of public control of public councils under the executive authorities can be estimated at 150,000 — 300,000 active citizens.

The following can be attributed to the systemic shortcomings of this branch of public control:

- narrow departmental focus of the activities of subjects of public control under federal executive authorities and their territorial divisions;
- absence / weak interaction with other public control bodies;
- lack of understanding of the goals and objectives of public control, the agenda for the development of civil society as a whole on the part of members of the subjects of public control;
- servility of members of the subjects of public control in relation to the controlled structure (subdivision), including due to the specifics of the formation of public councils at the level of territorial bodies.

Based on the foregoing, it should be noted that for the effective use of public control mechanisms, it is necessary to create a built hierarchical system of interaction between the subjects of public control, including horizontal interaction of the branches of public control at the regional level.

The synergistic effect of combining the efforts of both branches of public control eliminates the systemic shortcomings of each branch, provides additional personnel and expert opportunities for the implementation of high-quality mass public control.

Public control, the implementation of which takes place in an organized and purposeful manner, allows solving emerging problems between citizens and the state through the use of channels of interaction and mutual responsibility determined by law, serves as the most important condition for the implementation of the principle of democracy indicated by the Constitution of the Russian Federation³. The solution to the issues raised by society today largely lies in the analysis of financial flows, taxation, the quality and efficiency of tax administration. This is the facet of state control that allows society to clearly, with mathematical precision, form new development strategies.

Modern society is characterized by a high rate of development of all spheres of life of the state, which have a direct impact on the development of every element of civil society.

³ Constitution of the Russian Federation of 1993. URL: <http://www.constitution.ru/>.

We live in an era of disruptive information technology. Many sectors of the economy and industry are undergoing significant changes due to the widespread dissemination of information technology and telecommunications.

Modern problems require a prompt response from the state and society, which is possible only when introducing and applying innovative technologies.

Digitalization is a new business model. The largest companies around the world are rapidly moving in step with digital progress, using technologies that yesterday belonged to the field of science fiction: cloud computing, blockchain, artificial intelligence, biometric security, the Internet of things.

Thanks to new technologies, digital business is easily scalable to the entire global world, and can provide effective personal service to all customers, anywhere and anytime. Now almost all information has been digitized, and in a matter of seconds it crosses intercountry and intercontinental borders. This in itself is a challenge for financial institutions in general and tax administrations in particular.

Everything we do, both personal and business, will be measured and recorded in the not too distant future. Tax administrations need to take advantage of these opportunities both to ensure compliance with tax discipline and to move to a qualitatively new level of service provision.

The transition to a digital, whether it is a cashless settlement or an electronic document, is a tool in the fight against tax optimization and the withdrawal from the shadow of the activities of subjects of certain market sectors, since each transaction and document turnover can be tracked in the system.

According to a number of estimates, the volume of the shadow sector of the Russian economy is 22 % of GDP. In European countries, the average size of shadow activity was 18 %.

Many modern technologies have already become a reality not only for the private sector, but are also deeply rooted in tax administration.

Big data analytics, smart portals, mobile platforms, integration into the natural environment of customers, the “Internet of Things” (Cash

register equipment of a new type, online transmitting data on transactions in the retail network to the tax authorities, and labeling of certain types of goods — fur products, medicines) — this is already the present for the tax service of Russia.

In the understanding of the tax service, the Big Data stream includes a number of sources, some of which have already been created, and some are in the process of being created.

We are on the brink of a revolution that could change the familiar paradigm of tax administration. In order not to lose control, tax administrations must lead this process and create an environment that suits their needs.

There is no need to wait for data streams to emerge and rush to the tax authorities. Technology needs to be used to generate data streams that can help tax administrations.

If you look into the future, it is possible to guess what technologies will be in demand in the very near future:

- 1) Artificial intelligence, machine learning, neural networks (deep learning) — will significantly increase the automation of all processes, make them cheaper and more understandable for customers, significantly speed up many procedures and business processes, and qualitatively improve the control work of tax authorities. These solutions will find their application for a wide variety of purposes:
 - natural language processing,
 - Big data analysis, predictive analytics and behavioral analytics;
- 2) Virtual assistants. The early spread of this technology is closely related to the development of neural networks and artificial intelligence.
- 3) Blockchain or distributed ledger technology — this technology is probably the most controversial now. Cryptocurrencies aside, blockchain is indeed a very promising development. This technology allows you to achieve a new level of trust, guarantee the immutability and reliability of data storage, moreover, integrate taxes most deeply into life using smart contracts that provide for the automatic payment of taxes when certain events occur.

To this list, you can also add Customer Intelligence — these are technologies for customizing offers for the growing needs of various categories of users — for pricing, scoring and risk assessment, as well as personalizing customer interactions.

Also, for many people, biometrics is already a familiar thing that we use every day in our smartphones. It will also be more widely applied in the public sector.

The digital revolution is creating tremendous opportunities for digital transformation of tax administrations.

Tax administrations need to take the lead and oversee the evolution of their digital environment. Technology will enable them to achieve results that previously could only be dreamed of.

Comprehensive, high-quality data can improve tax certainty and reduce the administrative burden on taxpayers, as well as make tax compliance a full-fledged digital service.

In the long term, the technologies will make it possible to create a system of voluntary compliance with tax laws in Russia. The construction of such a system can seriously increase the level of mutual trust between the state and society, increase the transparency of the economy for all subjects, improve the quality of budget planning and guarantee the stability of state revenues. At the same time, questions about the origin of financial resources, the presence of a corruption component in the activities of civil servants will move from the plane of proof to the plane of obvious declaration.

The relevance of the development of tax services and increasing the efficiency of tax administration based on digital technologies, demonstrated above, allows us to talk about the prospects for a qualitative change in public relations. These changes are seen in the mainstream of the development of public control. Today, public control in Russia is legally secured by laws at the federal⁴ and regional levels. Nevertheless, it is necessary to improve legislation in this area, and this thesis is reflected in the Instruction of the President of the Russian Federation to the

current composition of the Public Chamber of the Russian Federation.

Such key areas of activity as judicial, law enforcement, defense, banking, electoral, require public attention and control, but the Federal Law does not establish the procedure for its implementation, taking into account the specifics of these areas.

First of all, it is necessary to make changes and additions to federal legislation in terms of specifying the powers of the subjects of public control and mechanisms for its implementation.

It is also necessary to establish coordination of the activities of subjects of public control at the level of regions and local governments, with the inclusion of public councils in this system under the executive authorities and law enforcement units. It is the public councils that should become the fulcrum of public control in the regions in the future.

One of the important problems is the lack of clarity of the conceptual apparatus in the current Federal Law, due to which there are various interpretations of it, difficulties in the implementation of its provisions, which in general does not contribute to the systemic improvement of the legal framework for the organization and implementation of public control. It is necessary to establish or clarify the content of the concepts of “public authority”, “public interest”, “socially significant activity”, “object of public control”, “subject of public control” and other concepts that are key for the implementation of functions of public control.

Taking into account the paramount importance of public control to improve the quality of communications between the authorities and citizens of the Russian Federation, it seems necessary to develop a schedule (“road map”) that provides for the implementation of legislative, organizational and financial measures in terms of improving legislation on public control, including development of draft bylaws ensuring the implementation of legislation on public control in the Russian Federation and establishing the obligation

⁴ Federal Law of July 21, 2014 No. 212-FZ “On the Foundations of Public Control in the Russian Federation” URL: <http://www.consultant.ru/popular/>.

to take into account the results of public control by bodies and organizations whose activities in the implementation of state or other public powers assigned to them are subject to public control.

The use of digital technologies demonstrated in the field of tax administration can be transferred in the medium term to the sphere of public relations.

“Digital democracy” will not be the only possible answer to people’s needs, but will become much more relevant and measurable for every

citizen, will significantly increase the level of citizen’s trust in state institutions and the electoral confidence of the voter in the elected authorities.

In this regard, the key role of the mechanisms of public and civil control appears to be a key role, which, on the basis of the massiveness of their use with the use of digital technologies, will become a stabilizing factor in the transition period, during which relations between a person, government and society will be formed within the framework of the new Social Contract.

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L. L. Arzumanova*

ONLINE MEDIATION AS ONE OF THE ALTERNATIVE FORMS SETTLEMENT OF A PUBLIC LAW DISPUTE¹

Abstract. The publication deals with the issues of the mediation procedure between public and private legal entities. A striking example of such a procedure was tax mediation, which was introduced into legal circulation as a pilot project. The article considers the current legal mechanism for regulating mediation as an alternative method of dispute settlement. Using the example of tax mediation, we analyze how the current mechanism of pre-trial dispute settlement established in the Tax Code of the Russian Federation does not correlate with the existing mechanism of the mediation process.

The paper presents some conclusions, in particular: it presents the concept of mediation as a systematic process that allows for constructive negotiations between the parties involved in the dispute in order to resolve the problem and possibly reach an agreement on the settlement of the dispute.

The important role of the mediator in legal relations, where the tax authority is a participant, is emphasized, which should: create a constructive atmosphere for discussing the conflict; adhere to the principles of mediation; assist in finding solutions without expressing its opinion on the agenda.

Keywords: mediation, pre-trial settlement of a dispute, tax dispute, appeal of a decision (action) of a tax authority, tax law, tax mediation, alternative methods of dispute settlement.

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Introduction

Digitalization has affected all spheres and areas of human life. A striking example of the impact of digitalization has become the sphere of taxation, which in recent years has been replenished with new formats of interaction between the tax authority and taxpayers.

It should be noted that the legal nature of tax legal relations often becomes a field where its participants — the fiscal authority and the taxpayer, take diametrically opposite positions. So, according to official data, the percentage of on-site

inspections has decreased several times in recent years: their number has decreased from 20 thousand to 9 thousand, and the average amount of additional charges per inspection has

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¹ The article was written within the framework of state assignment 075-00293-20-02 of 05/25/2020 Transformation of Russian law in the face of great challenges: theoretical and applied foundations. Topic number - FSMW2020-0030".

doubled — from 154.4 million rubles. (2017) to 33.5 million rubles. (2019).

The Federal Tax Service of Russia emphasizes that the number of complaints that were considered by their structures in 2019 decreased by 7.9% compared to 2018. It is noted that the number of complaints filed against decisions made following the results of tax audits has decreased by 28.2 %.²

In 2020, the following indicators were obtained: the number of complaints from taxpayers decreased by 17.4 %, and those considered — by 14.8 %. In general, the decisions of the courts of first instance, which considered applications on tax disputes that have already passed pre-trial settlement, also decreased by 32.1%.³

In turn, the use of the digital ASK VAT-2 program allows to determine the discrepancies in the payment of tax and each such taxpayer can be assigned a level of risk, which, in turn, becomes the basis for various methods of control measures in relation to such a taxpayer.

In this regard, the search for new solutions in the establishment of constructive relations with the tax authorities is being actualized. Here mediation can be applied as one of the forms of alternative settlement of a tax dispute. However, given the development of digitalization, mediation began to acquire an online format.

It is important to understand that online-mediation can solve the following tasks:

- to minimize property losses through effective redistribution of the tax burden;
- to establish a constructive dialogue with tax authorities;
- to identify tax risks at an earlier stage;
- to exclude the application of the sanctions policy in relation to the taxpayer;

— to save the resources of the parties given the development of digitalization, mediation began to acquire an online format.

Online — mediation as a way of settling a dispute

The term “alternative dispute resolution” first appeared in the mid-1970s. During this period, mediation was an informal procedure that the parties resorted to only on their own initiative.

H. Besemer writes that mediators—mediators help disputants find a mutually acceptable solution to their problems,⁴ these are persons whose powers do not include making a decision, but only creating the necessary prerequisites for the active participation of the parties in the development of final agreements as well as a digital platform within which such a dialogue is possible, taking into account the remoteness of the disputing participants.

From the technical point of view, mediation is possible provided that several conditions are met: the presence of the mediator himself; the real desire of the parties to take part in the procedure; informal dialogue between the subjects of the process.

Science also presents the concept of mediation, which is considered as “a path to a meaningful mutually acceptable solution based on consensus between the parties involved in the dispute.”⁵

It is important to understand that effective communication in the digital format can be created if the basic principles that the mediator must adhere to during the procedure are observed, regardless of the format of its holding. Among the basic principles of mediation are the following:

1. Voluntariness is a principle that allows everyone to withdraw from the procedure at any

² The results of the pre-trial settlement of tax disputes for 2019 have been summed up // URL: https://www.nalog.ru/rn77/news/activities_fts/9653808/

³ The results of the pre-trial settlement of tax disputes for 2019 have been summed up.

⁴ Besemer, Christoph. *Mediation. Mediation in conflicts.* / Translated from it. N. V. Malova. Spiritual Knowledge, Kaluga, 2004. P. 14.

⁵ Basics of mediation as a dispute settlement procedure. Textbook / Ts. Shamlikashvili - M.: Publishing house of LLC “Interregional Center for Management and Political Consulting”, 2013. S. 4. P. 10.

stage of its implementation without explaining the circumstances.

2. Confidentiality — guarantees the parties confidence that neither the mediator nor the parties themselves have the right to disclose information received during the procedure to third parties.

3. Cooperation and equality of the parties. During the mediation procedure, each of the participants, together with the mediator, is endowed with an equal scope of rights.

4. Transparency of the procedure — the opportunity to get acquainted with the principles of its implementation, the stages and rights of the participants, as well as the consequences of the decision taken by him before the start of the procedure itself.

5. Neutrality of the mediator — the mediator must be independent from other persons acting in the procedure.

Problematic aspects of the considered legal relationship. Alternative judicial forms of settling tax disputes may allow keeping the taxpayer on the market, on the one hand, and, on the other, replenishing the budgets of the budgetary system of the Russian Federation.

Taking into account the need to address these two areas, the tax authorities have developed mechanisms for the pre-trial settlement of tax disputes. However, the practice of applying this approach has shown that there was no outflow of complaints to the judicial authorities, in part, because the taxpayer is not satisfied with the decision of the higher tax authority.

Moreover, such participation is face-to-face, while online mediation allows the participants in the process not to be present directly in the same room, but to communicate while in different

territories. In this connection, it seems possible to use mediation, which has already been tested by professionals during the pandemic in the settlement of disputes in the framework of other areas of public relations.

In this part, one can cite the statements of M. V. Arakelova, who introduced the concept of “alternative forms of pre-trial settlement of disputes arising from tax legal relations”, under which the system of legal methods (means) based on the proactive use of taxable persons is considered to prevent the occurrence of a tax dispute and (or) settle such a dispute without going to court.⁶

The author’s definition can be attributed both to the format of pre-trial settlement of tax disputes, provided for in the procedure for appealing acts of tax authorities, enshrined in Section VII of the Tax Code of the Russian Federation,⁷ and to other forms, including mediation of tax disputes, which began to be applied after the adoption of the Federal Law from July 26, 2019 No. 197-FZ,⁸ which in part 2 of Art. 1 of the Federal Law of 27.07.2010, No. 193-FZ (hereinafter referred to as the Law on Mediation),⁹ amendments were made to the possibility of using the mediation procedure in relation to disputes arising from administrative and other public legal relations.

Here it seems possible to share some considerations regarding the fact that the Law on Mediation, as well as procedural norms (judicial conciliation procedures enshrined in Chapter 14.1 of the Code of Civil Procedure of the Russian Federation (Article 153.6) and Chapter 15 of the Arbitration Procedure Code of the Russian Federation (Article 138.5)), allow using mediation as one of the types of conciliation procedures, including online format.

⁶ Arakelova M. V. Alternative forms of pre-trial settlement of disputes arising from tax legal relations // Abstract of the thesis for the competition of Candidate of Legal Sciences. Moscow, 2017, p. 8, p. 9, p. 22.

⁷ Tax Code of the Russian Federation (part I). // *Sobranie zakonodatel'stva Rossijskoj Federacii*. 1998. No. 31. Art. 3824.

⁸ Federal Law of July 26, 2019 No. 197-FZ “On Amendments to Certain Legislative Acts of the Russian Federation” // *Sobranie zakonodatel'stva Rossijskoj Federacii*. 2019. No. 30. Art. 4099.

⁹ Federal Law of 27.07.2010 No. 193-FZ “On an alternative procedure for resolving disputes with the participation of a mediator (mediation procedure)” // *Sobranie zakonodatel'stva Rossijskoj Federacii*. 2010. No. 31. Art. 4162.

At the same time, the Law allows resorting to mediation at any stage of the conflict: at the initial stage, during pre-trial appeal and already in the procedure of court hearings.

Moreover, from July 28, 2020, the Resolution of the Government of the Russian Federation of July 24, 2020 No. 1108 (hereinafter — Resolution No. 1108)¹⁰ entered into force, which, on an experimental basis, introduced a procedure for pre-trial appeal of decisions of the control (supervisory) body, actions (inaction) its officials.

According to clause 2 of the said Resolution No. 1108, pre-trial appeal against decisions of a control (supervisory) body, actions (inaction) of its officials is understood as a procedure for resolving a dispute with a controlled person, carried out by a body authorized to consider a complaint of a controlled person. Despite the appearance of this document, it does not replace mediation methods of dispute settlement, since in such legal relations there is no independent mediator who assists in the settlement of disputes.

Analyzing further the categorical apparatus, it should be noted that the Law on Mediation reveals the purpose of its creation, from which it follows that it is based on the organization of legal conditions for the application of an alternative procedure for resolving disputes with the participation of a mediator, promoting the development of business partnerships and the formation of business ethics. harmonization of social relations (part 1 of article 1).¹¹

M. V. Arakelova concludes that the use of the institution of mediation only in the field of civil law relations significantly limits the scope of alternative tax procedures for resolving disputes. In general, supporting the idea of using mediation in

resolving tax conflicts within the framework of “... a well-built and efficiently functioning system of interaction between tax authorities and taxpayers”, the conclusion is made that “there is no imbalance of interests of private and public participants in disputes.”¹²

This part proposes a conclusion that the categories of “pre-trial” and “alternative” forms of dispute settlement should be considered as part and general, where the category of alternative ways of resolving conflicts is generic and applied in a broader sense, establishing the possibility of appeal to a higher tax authority providing for the possibility of contacting an independent mediator, and pre-trial ones — only filing a complaint with a higher supervisory authority.

The first official experience in settling a tax dispute was mediation between the Federal Tax Service Inspectorate of Russia No. 21 and OOO Rif. The participants agreed to clarify the tax liabilities of the taxpayer and pay the corresponding amounts of taxes at a convenient time for the payer.

Representatives of the tax authority comment on the pilot project in the following way, noting, in particular: “... One of the new mechanisms of control and analytical work may be the pre-trial mediation procedure. The essence of the mediation mechanism is to involve a third party (mediator) — an independent expert who helps the parties to work out a certain agreement on the dispute (In this case, on the claims of the tax service in relation to the economic activities of the organization), while the parties fully control the decision-making process on the settlement of the dispute and conditions of its permission “.¹³

¹⁰ Decree of the Government of the Russian Federation of July 24, 2020 No. 1108 “On conducting an experiment on the territory of the Russian Federation on pre-trial appeal against decisions of the control (supervisory) body, actions (inaction) of its officials // *Sobranie zakonodatel'stva Rossijskoj Federacii*. 2020. No. 31 (part II). Art. 5186.

¹¹ Arakelova M. V. Alternative forms of pre-trial settlement of disputes arising from tax legal relations: Abstract of the thesis for the competition of Candidate of Legal Sciences. Moscow, 2017, p. 8, p. 9, p. 22.

¹² Arakelova M. V. *Op. cit.*

¹³ Mediation is a new word in tax . URL: https://www.nalog.ru/rn78/news/activities_fts/10194093/ (date of access: 11/19/2020).

In fact, the mediation procedure solved two problems: saved the taxpayer; made up for the budget losses. By using online mediation, we will be able to resolve existing disputes without direct appeal and participation in the appropriate body and save the costs of the parties in resolving conflicts.

Conclusions

1. It should be recognized that the procedure for conducting online mediation in our country has now begun to spread, in part, due to the fact that such a form of conducting it can save the financial resources of the parties.

2. The online mediation procedure is a systematic process that allows for the conduct of

negotiations between the parties in order to resolve the problem and reach an agreement on the settlement of the dispute.

3. A mediator is a mediator whose functions include establishing effective communication between disputing subjects.

4. The lack of sufficient law enforcement practice undoubtedly complicates the research process of this institution of online mediation. However, the possibility of participation in this procedure of public authorities and local governments and, in particular, tax structures, will allow the formation of practice in this area, which, in turn, leads to its popularization of mediation as an alternative way of resolving a dispute.

A. M. Gubin*

DIGITALIZATION AND PUBLIC ADMINISTRATION: SPECIFICITY OF INTERACTION AND DEVELOPMENT PATHS

Abstract. The article is devoted to the study of the processes of digitalization in the field of public administration. The purpose of the work is to identify the main trends in the development of public administration in the new realities. Analyze the key changes with the advent of modern technologies.

Keywords: digitalization, public administration, new technologies, digital transformation, changes

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Digitalization is a process that has made it possible to change the perception of modern technologies. The transformation of life priorities and values has shifted its focus to the use of digital technologies.

Digitalization has breathed new life into various spheres of life: economy, medicine, education, industry and, of course, public administration. All state and municipal services are provided using information technology. Automation of processes made it possible to facilitate and simplify everyday human needs.

Digitalization is a new stage of automation, economic activity and public administration, the process of transition to digital technologies, which is based not only on the use of information and

communication technologies to solve production or management problems, but also on the accumulation and analysis of big data with their help in order to predict the situation, optimization of processes and costs, attraction of new contractors, etc.¹

The global pandemic has shown how important it is to evolve along with technological progress. Digitalization, as a global trend, increased its importance precisely during the lockdown, when each country was forced to adapt and rebuild the policy of organizing life during an emergency.

Russia has managed to optimize many systems and adapt to new realities. Many entrepreneurs, small businesses and large companies have been forced to tackle business transformation and move to online platforms to keep their businesses alive. Changes in corporate policy, training, the transition to a remote format of communication and the development of new concepts — all this was the beginning of the development of social and economic activities using digital technologies.

Online is the new trend of isolation. All the most important and necessary things went online, from grocery shopping to filing documents, education, and telecommuting. Life has completely changed due to the pandemic. But it contributed to an extraordinary leap in technology development.

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¹ The first edition of STB "Digital transformation. Terms and definitions. URL: <https://stb.by/stb/projectfiledownload.php?urlid=9032> (accessed: 01.06.2020).

Digitalization has revealed the need to educate citizens and the need to find new personnel, retraining to optimize the automation of systems. The modernization of the socio-economic sphere is directly related to the digital transformation of life support. With the development of new technologies, there has been a sharp leap for many government agencies in matters of fundamental reform and reorganization. Adapting to the evolutionary process of digital adoption has allowed government to push the boundaries for new opportunities.

State and municipal administrations were forced to urgently react to the current situation and predict the consequences of isolation. Nevertheless, Russia entered the international level and achieved success in the issues of forced adaptation to new realities. Digital transformation is becoming a highly effective method of regulating economic activity. The functioning of the process of digitalization of the structure of state and municipal government helped to identify a new model of the management system.

The transformation of public administration is about changing behavior and the way of communication between public administration and citizens, namely:

- provision of state and municipal services in the format of electronic interaction;
- online platforms for interacting with entrepreneurs;
- formation of “electronic partnership” with representatives of the business sector.

Analysts in many countries have come to the conclusion that the digital transformation of public administration is not limited to the introduction of technologies in the provision of state and municipal services. The transformation boils down to the fact that an important element of the changes will be not only the development of a new administration policy, but also the transformation of lawmaking and regulation of control and supervisory activities.

The authorities will use digital technologies for social monitoring and analysis of their activities. The economic efficiency of the introduction of technologies in public administration will depend on the results of the assessment of improving the quality of work and on the assessment of risks. And it will also affect the reduction of costs.

Russian public administration needs to systematize and optimize work processes through

digitalization. For this, it is necessary to carry out a number of measures that will take into account new opportunities for improving the quality of public administration and ensure efficiency. This, in turn, will lead to a decrease in the time for performing state functions.

This practice will take into account the following areas:

- 1) active use of “Big data” for the achievement of high-quality results of the implementation of state activities, as well as for the use of statistical data and for the administration of income.

Big data is a series of approaches, tools and methods for processing structured and unstructured data of huge volumes and significant diversity to obtain human-perceived results that are effective in conditions of continuous growth, distribution over numerous nodes of the computer network that formed in the late 2000s years alternative to traditional database management systems and solutions of the Business Intelligence class.²

The use of “big data” in this case will be perceived not only as data or their volume, but rather as a method of digitizing and processing information. Also, this method will help to solve the problem of “data manipulation”, which involved the excessive use of administrative data and distortion of indicators for reviewing the activities of authorities. The solution to the “manipulation” problem is to apply the “big data” method, thanks to which the data remains completely independent of the authorities;

- 2) transition to predictive analytics, that is, forecasting in order to find the right solutions to optimize processes;
- 3) digitalization as a way to regulate the budget (cost estimation, cost stabilization assessment).

Maintaining competitiveness, the most important task of the digital transformation of public administration. The world economy has long shown what the standard for the provision of state and municipal services should be. Therefore, Russia must keep the bar high and raise the level of competitiveness with the help of new quality conditions and put forward its own parameters for the provision of services.

The digitalization of public administration requires the transformation of rule-making. To implement such campaigns, it is necessary to remove restrictions related to digitalization, for example, technological, legal.

² Wikipedia [Electronic resource]. URL: https://ru.wikipedia.org/wiki/Big_data (accessed: 24.02.2021).

Russia is still at the stage of actively introducing modern technologies into the public administration system, so it is important to take into account all the nuances in developing a competent strategy for the development of digital transformation.

The functioning of public administration consists in the development and application of new modern technologies. Digital transformation made it possible to quickly transform all the necessary resources and contributed to the solution of socio-economic, managerial and entrepreneurial issues.

Analyzing the concept of digital transformation in the field of public administration, important stages of digitalization were identified:

- data digitization, with the help of which new technologies are introduced to improve the quality and efficiency of the activities of various bodies;
- electronic government, or electronic interdepartmental interaction, which is based on the introduction of digital technologies to improve the work of public administration and to abandon paper-based document flow;

Electronic government is a package of technologies and a set of related organizational measures, regulatory support for organizing digital interaction between government bodies of various branches of government, citizens, organizations and other economic entities;³

- digital government, using the latest and most advanced technologies such as “artificial intelligence”, “Internet of things” and others. When providing state and municipal services, all user requests will be taken into account.

Digitalization is becoming a kind of instrument for the transformation and modernization of public administration and creates its own vector of changes.

Digital technologies will increase the reliability of data monitoring and analysis. There will be more opportunities with the help of artificial intelligence, predictive analytics and evidence-based policy, which is actively used in public administration.

The study of foreign experience demonstrates that the introduction of digitalization is based on the optimization of state budget expenditures, which is an important priority for many authorities.

Significant interest is given not only to the result of the work of state bodies, but also to the productivity of their activities.

An important part of our research will be an analysis of the work of European colleagues in the application and use of digital technologies for effective and innovative public administration and the proper provision of fast and high-quality services to citizens.

According to a European ranking based on the use of online services in government administrations, Finland, Sweden, Holland and Denmark have become digital leaders, with more than 90 % of digital users. These countries are followed by the United Kingdom, Luxembourg, Ireland, Estonia and Belgium. The worst performing countries are: Bulgaria, Romania, Greece and Poland.

To assess this rating, the following indicators were taken into account:

- e-government users: the percentage of users who use the Internet to fill out and submit forms to the State Administration;
- pre-filled forms: percentage of forms received by the Public Administration via the Internet;
- the level of completeness of online services;
- public digital services for companies;
- open data: an index of transparency of public administration, taking into account access to information that it possesses (to the extent that access can be guaranteed);
- digital health services: percentage of people who have used health services and online help;
- health data exchange: measuring the use of electronic networks for the exchange of data between health professionals and experts in the health sector;
- digital prescriptions: percentage of use of electronic networks for the transmission of prescriptions to pharmacists.

Italy will serve as a good example for us. In recent years, Italy has been ranked 24th out of 28 EU member states in the European Commission's Economic and Social Digitization Index (DESI).

In analyzing the use of digital public services, Italy ranks 18th among the Member States of the European Union with good results in the field of open data and digital health services.

However, the country still shows a low level of online interaction between government bodies and citizens: only 37 % of Italian users submit online forms.

³ Wikipedia [Electronic resource]. URL: https://ru.wikipedia.org/wiki/Electronic_Government (accessed: 03.18.2021).

Research results in the field of open data and digital health services improve their performance every year.

Italy is the fourth largest open data country in Europe with an 80% rate.

The country is ranked eighth in the EU for digital health services, with 24% of Italians using online health care and care and assistance services. 32% of primary care physicians use digital prescriptions.

According to the publication "The Observatory": "Thanks to digitization in Italy, you can save 200 billion euros per year." The assessment covered both the government market (totaling \$ 40 billion) and the private company market (totaling \$ 160 billion).

After analyzing the Italian experience, we came to the conclusion that at this stage of digital transformation, the administrative authorities coordinate the digitalization of public services, highlight the key aspects necessary for digital transformation, and outline the boundaries within which the administrative authorities must plan their digitalization process.

Many European countries today have the issue of digital transformation of public administration on the agenda, but many European countries, including Italy, still have a long way to go to improve their system.

Analyzing the digitalization of technological processes, one can testify that they have an impact on public administration, also on changes in public policy issues and the modernization of various programs.

In the future, the implementation of mechanical algorithms and artificial intelligence components into the HR management system will become a new reality and will be the start for new opportunities.

Without a doubt, the advancement of digital technologies in human resources policy promotes widespread adoption and will lead to the best results.

Based on statistics, digital transformation is a mechanism of the public administration system, the success of which depends on the synthesis of digitalization, as a phase of decision-making in management and digitalization issues, as a phase of collection and processing of information data.

At this stage in the development of digitalization in Russia, a state program was created aimed at transforming the socio-economic, political and cultural activities of society.

The program includes scenarios for the development of the sphere of providing state and

municipal services and improving their quality, teaching citizens digital literacy and improving the structure of public administration.

An obligatory factor in the modernization of the economic potential of Russia is the introduction of information and telecommunication technologies and the awareness of citizens.

In modern realities, within the framework of the implementation of the Information Society program, the advanced structural functions of the public administration system are being formed, the factor of which will be the high efficiency of the economic activity of modern society.

New elements of electronic digital support for economic development are being created in order to accelerate the process of optimizing digital data logistics.

This will be the basis for the resource provision of the public administration system and the functioning of the activities of state and municipal authorities that control socio-economic relations.

The high level of digitalization of public administration guarantees an even higher level of not only individual factors, but also the quality in general.

Nevertheless, there are a number of risks of introducing digital technologies into the public administration system, and they are worth mentioning.

First, the illegal use of personal data; secondly, the loss of control over governance in the field of public administration; thirdly, there is a high probability of human rights violations in the case of an automated decision-making procedure.

And lastly, the risks of an organizational nature, government bodies may be against transformation, informatization and the transition to a different format of work.

Thus, digitalization will allow transforming the public administration system, which will undoubtedly improve the quality of the work of the authorities and increase the efficiency and effectiveness of public administration, and reduce the interference of state authorities in the processes of economic activity.

Digital transformation means the automation of processes and the use of electronic document management.

The provision of state and municipal services implies a complete transition to an electronic format of interaction with citizens.

For making management decisions at all stages, reliable data are provided, and the decisions themselves will be made using advanced digital technologies.

Digitalization acts as a direct method of improving the quality of state and municipal services and their availability for citizens.

Advanced technologies are transforming the types of government functions, from lawmaking to the control and oversight activities of government bodies and the administration of profits.

However, the fact that there are risks and limitations cannot be undone. It is necessary that digital restrictions and rulemaking adapt to modern realities and develop new legal acts for the implementation of public administration activities. The current legislation needs urgent changes.

The state's contribution to innovative projects will enhance competitiveness at the international

level. The country's economy is directly dependent on the digital transformation of public administration.

It is important to cultivate and educate citizens about digitalization. Thanks to this, more and more advanced technologies will appear that will simplify and improve everyday processes.

Based on various studies on the digitalization of public administration, we can conclude that at this stage of digital transformation, the Russian economy has noticeably and dynamically started in the world ranking.

European states are trying to achieve efficiency in their work, and many countries have much to strive for in matters of modernization and digitalization in the field of public administration.

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D. M. Moshkova*

TRANSFORMATION OF TAX LEGAL RELATIONS IN THE CONTEXT OF DIGITALIZATION OF THE RUSSIAN ECONOMY

Abstract. The article examines the process of transformation of tax relations between the state and taxpayers as part of the development of the digital economy in the Russian Federation and the introduction of digital technologies in the tax administration procedure. The author analyzes various digital platforms that have been developed and implemented by the tax authorities. Used in the process of tax administration and taxation of organizations and individuals. At the moment, the FTS of Russia has more than 50 different electronic services available on the official website of the FTS, with the help of which a taxpayer can use the service he needs.

In particular, one of the main services of the website of the Federal Tax Service of Russia is considered “Personal Account”, which is accessible to all categories of taxpayers, which is integrated with the Unified Portal of State and Municipal Services. In addition, the author examines the specifics of calculating and levying VAT with the development of the digital platform ASK “VAT-3”, the introduction of a tax on “Google” and the transition from traditional VAT through its digitalization to a new quality level — smart VAT. So. In the article, the author draws attention to the need to clarify the concept of the object of taxation and establish the corresponding tax consequences in relation to new business models, for example, when implementing e-commerce in the form of the sale of goods and trade, as well as when selling digital financial assets.

Special attention is paid to the procedure for applying tax monitoring as a special form of tax control. The author also points out the importance of the State Information Resource of Abu halter (financial) reporting, launched from the beginning of this year, and the functionality of the online KKT platform.

Keywords: tax legal relations, digital technologies, digital economy, digital platforms, ASK “VAT-3”, “My tax”, taxpayer’s personal account, “Transparent business”, tax monitoring, online cash register, tax on “Google”, digital financial assets.

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Introduction

One of the priority directions of the state policy

the economy. It seems that for the digital economy to function smoothly, it must develop in accordance with the principles underlying it. In turn, the digital economy is able to most fully meet the needs of society. Taking into account this fact, the process of formation of the digital economy is taking place in the Russian Federation at a rapid pace.

The digital economy is an economic activity in which the key production factor is digital data, processing large volumes and using the analysis results of which, in comparison with traditional

of the Russian Federation is the digitalization of

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forms of management, can significantly increase the efficiency of various types of production, technologies, equipment, storage, sale, delivery of goods, and services.¹

The scale of the digitalization process allows us to conclude that the ongoing transformation of public relations can be considered a new technological revolution. The transformation of public relations occurs under the influence of the rapid development of information technologies, which, in turn, increases the role of legal regulation of relations in society.

In this regard, at the moment, a significant part of state and municipal services have been transferred to electronic form, which in turn eliminates obstacles to the development of relationships between public authorities and private entities.

Thus, the introduction of digital technologies in the process of tax administration and the procedure for adjusting tax relations has a huge impact on the efficiency of taxation in general for individuals and organizations.

Main part

Today, the activity of the Federal Tax Service of Russia is one of the leading agencies of state and municipal authorities in terms of the development and implementation of various instruments, mechanics and methods that function on different digital platforms. The Federal Tax Service of Russia noted that “the quality of the tax administration is growing thanks to the introduction of new technologies and changes in approaches. The Service now has all the necessary tools that allow it to identify tax claims without creating administrative pressure on a good faith business.”

At the moment, the FTS of Russia has more than 50 different electronic services available on the official website of the FTS, with the help of which a taxpayer can use the service he needs without visiting the tax office.

One of the main services of the website of the Federal Tax Service of Russia is the “Personal

Account”, which is accessible to all categories of taxpayers. It allows you to receive up-to-date information on tax liabilities, and also provides the opportunity to interact with tax authorities without visiting the tax service. A personal account is a tool for including a taxpayer in the spheres of interaction with public authorities; it is integrated with the Single Portal of State and Municipal Services. “Consolidation of data at the federal level allows you to switch to the external administrative administration of taxes,” emphasized the head of the Federal Tax Service of Russia.

For example, the “Taxpayer’s Personal Account” function is constantly being improved and expanded on the basis of requests from taxpayers themselves. Today the service is used by 27.7 million citizens, 1.8 million individual employers and 818 thousand organizations.

In terms of the use of digital technologies in the analogue administration, it should also be said about the open data array, placed in the public domain by the analogue authority. Information that is posted by the tax authority is located in the “Open data” section of the website of the Federal Tax Service of Russia.

The use of this information helps to increase the security of the taxpayer when choosing a counterparty for joint economic activities, as well as in case of irregularity of actions (inaction) of the counterparty, use the data This information as an evidence base when justifying the availability of a proper examination, the absence of which is often the reason for additional charges when conducting control measures by tax authorities.

Moreover, thanks to the “Smart Business” platform, you can quickly obtain information about contractors, as well as identify their points of interest, marked with a special sign indicating potential the risk of conducting business relations with such counterparties.

Since 2017, Russia has a “google tax” that regulates the mechanism of VAT payment by non-resident organizations that sell services on

¹ Decree of the President of the Russian Federation of May 9, 2017 No. 203 “On the Strategy for the Development of the Information Society in the Russian Federation for 2017—2030” // *Sobranie zakonodatel'stva Rossijskoj Federacii*. No. 20 of May 15, 2017, Art. 2901.

the territory of the Russian Federation. It should be noted that thanks to the introduction of digital technologies into the VAT collection mechanism, the growth in tax collection has increased many times over.

However, in spite of the cumbersome number of VAT approval, there are a number of problems that slow down the desired result of the Federal Tax Service of Russia. The further development of digital technologies and the improvement of the existing format of interaction between VAT payers and the Federal Tax Service of Russia should, however, lead to the transition from traditional VAT through its digitalization and further to a new quality level — smart VAT. Smart VAT is a model of the future universal indirect tax, calculated and levied without human intervention, which is based on the use of blockchain technology.

This is a level of automation in which the calculation and debiting of tax amounts from the taxpayer's account will be carried out online. The operation of the smart VAT internals and infrastructures can be presented as several levels. At the first level, all taxable transactions are monitored through control of cash register technology and specialized software. At the second level, the collected data on taxpayers is consolidated.

The next level assumes the implementation of an automated camera for tax audit with the identification of transactions with high and medium risks, which are used to send requests for additional data. If the data cannot be supplied or the supplied data does not fully correspond to the system requirements, the information is sent to the analogue inspector for consideration. Solution for the appointment of an on-site tax audit. If the information is complete and sufficient, the VAT amounts are debited from the taxpayer's bank account.²

It should also be mentioned the close interaction of tax authorities with taxpayers, implemented in the form of a tax monitor, the legal

regulation of which is established by Section V.2 of the first part of the Tax Code of the Russian Federation. ... The tax monitoring allows to ensure the confidence of the tax authorities in the correctness of the formation of the tax bases of the paid taxes, the completeness and timeliness of their payment by taxpayers, but at the same time from the taxpayers themselves. tax risks are significantly reduced, since it becomes possible, in a preferential order, using the mechanism of conciliatory procedures to check, clarify and correct any disputable issue between the subjects of legal relations.

It should be noted that the Federal Tax Service of Russia became a laureate of the Prize established in 2016 by the Russian Union of Industrialists and Entrepreneurs and PwC in a special nomination "For Contribution to the Improvement of the Tax Climate in Of the Russian Federation and the development of effective interaction between the state and business in the sphere of taxation "for the implementation of the tax monitoring system.

The introduction of the institute of tax monitors also makes it possible to develop a dialogue with taxpayers. By opening their information resources and systems internal to its control, those who paid for the payers receive from the tax traders the motivated opinions on the names of legal legislation in different situations. Today, more than 50 companies participate in the tax monitor, 16 of them with state participation: Rostekh, RZhD, Aeroflot, Inter RAO, Bank VT B, NCC and others. The above numbered digital technologies make it possible to reduce traffic costs from tax authorities, which leads to an increase in their productivity and optimization of the tax authority as a whole. ...

From January 1, 2019, a pilot project was launched on the introduction of tax on commercial income³ in four regions of the country: Moscow, Moskovskaya and Kaluga regions last, Republic of Tatarstan, and will last 10 years. The

² Karpova O. M., Mayburov I. A. Transformation of value added tax in the context of forced digitalization of the Russian economy // Bulletin of the Tomsk State University. Economy. 2019. No 46.

³ Federal Law of 27.11.2018 No. 422-FZ "On an experiment to establish a special tax regime "Tax on professional income" // Sobranie zakonodatel'stva Rossijskoj Federacii. 2018. No 49 (part I). Art. 7494.

special mobile application “My nalog”, developed by the Federal Tax Service of Russia, will allow self-registered registries to register, pay for a log and send checks to their customers.

The regional authorities have already been evaluated or the positive effect of this application. In particular, the head of the regional administration for the Tomsk region drew attention to the fact that the application allows a citizen to register as a payer on log in a couple of clicks. In this case, they do not need to give a declaration, or keep a record, or use control of cash registers. The accounting and calculation of taxes are carried out by the tax authorities, so remote interaction is ensured in full through the application. In the future, a similar principle will be introduced step by step into other tax systems.

The Federal Tax Service of Russia has also developed additional services that make it possible to electronically generate payment documents, check the correctness of filling out invoices, and calculate the cost of a patent, calculate taxes on property of individuals, select the taxation mode using a tax calculator, calculate the tax burden.

The Federal Tax Service of Russia implements the technology for reduced reporting and the administrator of the wasteful workload for the biology, which has been launched since the beginning of the current year. Informative and informational resource with financial reporting, from 20 to 21, reporting for organizations on land and trade on to logs, the introduction of a non-declaration mode for taxpayers who apply a special tax regime Simplified taxation system “incomes” and others.

GIR BO is a publicly available database for the annual reporting of organizations, which made it possible to submit reports to the tax service only in the form of an electronic document. With the introduction of the GIR BO for log payers, the obligation to submit reports to Rosstat has been canceled, since this function has now been assigned to the Federal Tax Service.

On the “Russia-Afrika” website, which took place on 23 October 2019, other colleagues have a positive assessment or functionality of the platform “ONLINE-KKT”, which reflects information about the significant sale of goods and

services in real time. The introduction of on-line cash registers is another project aimed at increasing the efficiency of tax control and removing non-productive ones from the support of business.

From the words of the deputy head of the UFNS of Russia in the Murmansk region, T. P. Rusanova: “The introduction of a speed-accelerated approach to the work of tax authorities made it possible to reduce the number of tax exits, with an increase in the level of their efficiency” ... Online cash registers with especials in real time mode and sending to the tax authorities the information about the performed transactions, in the form of world electronic financial data that are stored in the “cloudy” storage.

Thus, ensuring the control of all important sales and increasing the efficiency of the economy. In such conditions, there is no need for control in its traditional definition — with the exit of an inspector at the place of sales. More than 1.5 million for log payers of the country have registered more than 3 million cash registers, which is 2.5 times more than before the reformed park. Monthly in real time and the Federal Tax Service controls over 3 trillion rubles of revenue. At the present time, almost 24 thousand cash registers have been registered in the region (IFTS, Tomsk).

With the introduction of various analytical tools and modern digital technologies, it became possible not only to transmit information, but also to process it, including in automatic mode.

Moreover, digital technologies ensure the processing of large amounts of information, its comparison, and the identification of facts of non-compliance with the stated criteria. One of the most striking examples, which is an effective tool for analog administration, is the ASK “NDS-2” system, which consolidates the oval in itself data arrays on VAT taxpayers, followed the process of tax payment at all stages of the sale of goods, works and services. With the help of the implementation of the ASK “NDS-2” system, about 15 billion invoices were collected and compared.

At present, the programmed complex ASK “VAT-3” is being used — a more advanced and improved complex that allows you to monitor the

entire path of goods passing (work, services), as well as income and expenses of taxpayers on bank accounts, reveals the amounts of VAT and related parties that have not been brought into the budget. Today, the gap between the VAT paid and the deducted amount in Russia is one of the lowest in the world — less than 1 %.

As of June 20, 19, the indicator dropped by 7 estimated points and amounted to 86.6 billion rubles, of which 80 million rubles goes to Murman area. These data are the zone of risk that may be in matters related to non-payment of tax obligations. The unification of the bias-processes of the tax control with the help of an analytical system allows you to track the entire chain of the NDS movement, instantly identify inconsistencies and avoid fraudulent actions. And as a consequence, it encourages the taxpayers to create a transparent on the basis of the food and to make their tax obligations up to the minute.

This changes the form of monitoring activity, which is focused only on potential extenders or those who are located behind the meter. On platform, and removes the administrative to the group for business. In accordance with the order of the Federal Tax Service of Russia, an Inter-regional Inspection was created in Moscow on a camera control, which with the help of the ASK NDS carries out the centralized processing of all submitted VAT declarations.

On the basis of ASK NDS-2, together with the Federal Customs Service of Russia, a draft documentary traceability of imported goods was created. It will allow you to free the market from unscrupulous students, to avoid the low cost of goods, and also to reduce the number of checks and administer a group of conscientious participants in external economic activities. The pilot project on traceability of 10 groups of goods has already been joined by such large payers as Detsky Mir, Bosh, Panasonic and others.

Beginning from 2013, the Federal Tax Service of Russia implements and gradually transfers to a new automated information system of

a new generation “Tax-3”. With the help of the AIS “Nalog-3” system, the use of information is possible through the implementation of the mechanisms of its integration on the basis of the consolidation of the databases of the federal and regional levels.

In addition, from January 1, 2019, a pilot project was launched on the introduction of June tax on professional income⁴, which will last 10 years. The special mobile application “My tax”, developed by the Federal Tax Service of Russia, will allow self-employed people to register, pay a tax and send checks to our clients.

The regional authorities have already been evaluated or the positive effect of this application. In particular, the head of the regional administration for the Tomsk region drew attention to the fact that the application allows citizens to register as a payer a log in a pair of “clicks”. At the same time, they do not need to either give a declaration, or keep a report, or use control of cash registers. Accounting and the calculation of the tax account are kept by the tax authorities, that is, the remote interaction through the application is ensured in full. In perspective, a similar principle will be introduced step by step into other tax systems.

Today, the law has qualified the utility tokens as digital evidence certifying the utility digital rights belonging to their owner. Digital certificates are non-documentary securities, and, therefore, the sale of such assets in the territory of the Russian Federation is not subject to VAT in accordance with clause 12, part 2, article 149 of the Tax Code of the Russian Federation.

By the Federal Law of July 31, 2020 № 2592, digital financial assets were defined as digital rules, including monetary requirements, the possibility of exercising rights on equity securities, the right to participate in the capital of a non-public joint stock company, to request the transfer of equity securities, which are stipulated by the decision on the issue of digital financial assets, issue, accounting and which are possible only by making (changing) records in the information system

⁴ Federal Law of July 31, 2020 No. 259-FZ “On digital financial assets, digital currency and on amendments to certain legislative acts of the Russian Federation” // *Sobranie zakonodatel'stva Rossijskoj Federacii*. 1920. No. 31 (part I). Art. 5018.

on the basis of a distributed register, as well as in other information systems.

It can be assumed that the sale of such assets from an economic point of view should also not be subject to VAT in accordance with Clause 12, Part 2, Article 149 of the Tax Code, and in the case of the implementation of digital rules that include monetary requirements — in accordance with clause 15 of part 3 of article 149 of the Tax Code of the Russian Federation, if we consider the implementation of such rules as the implementation of the operation of the loan in cash.

It is submitted that in order to exclude the possibility of difference in the formulations of the law on taxes and fees, in the text of Art. 149 of the Tax Code of the Russian Federation, as an operation not subject to VAT, the sale of digital financial assets should be closed separately.

Separately, mention should be made of the federal law “On Amending Certain Legislative Acts of the Russian Federation in order to take urgent measures to ensure sustainable development of the economy. Omics and mitigation of the consequences of an acute epidemic of a new cortex on an avirous infection “dated June 8, 2020 № 166-FZ. Most of the amendments are in law to implement the so-called “third package” of measures to support business and population in connection with coronavirus pandemic.

In this regard, the Federal Tax Service of Russia, together with the Ministry of Economy, for the first time placed in the open access the Register of small and medium business entities, which were provided with measures of state support as time acute coronavirus infection, as well as for more early periods. According to the data of the tax authority, in total for 2019 — 2020 more than 1 million 620 thousand SMEs and self-employed citizens received assistance.

At the same time, many employers were able to take advantage of the help on a daily basis: in total, the Register contains information on more than 4 million 340 thousand support cases. Information from the Register can be obtained both through interdepartmental exchange and through special services of the Federal Tax Service: “Unified register of small and medium-sized

businesses — recipients of support” and “Open Experienced data “.

Thus, the introduction of digital technologies in tax relations provides comfort in the interaction of taxpayers with the tax authority. Thus, taxpayers and tax agents must submit tax and accounting reports at the place of their registration, unless otherwise provided by the current legislation. At the same time, according to the general rule, they can choose the form of submitting such reporting — on a material carrier or in electronic form. Consequently, a focused and streamlined system of technological processes makes the work of analogue bodies easier and the use of information more efficient.

Conclusion

Digital technologies expand the possibilities for the implementation and protection of the rights and legal interests of subjects of tax legal relations. For example, taxpayers on the basis of nn. 1 P. 1 of Art. 21 of the Tax Code of the Russian Federation, at the place of its registration, from the tax authorities, free information on current taxes and fees, tax law, etc. At the same time, they can implement this right through their personal taxpayer account.

The introduction and use of information technologies in the work of tax authorities presupposes a new quality in the provision of public services. The administering tax technologies are directed to ensure observance of the legal requirements by the subjects of tax relations, to simplify the exchange of information, as well as to automate the process. The introduction of digital technologies as a whole leads to an increase in the efficiency of existing methods for the right regulation of emerging social relations.

Meanwhile, a number of issues remain unresolved, in particular, the issue of the correct regulation and determination of taxation objects in relation to taxes arising in connection with the implementation of activities on the Russian Federation. Digital services markets (for example, in the field of electronic commerce). To solve this problem, further research is required, since the application of a traditional approach to defining

the concept of an object of taxation in a new economic reality is impossible and common sense is impractical.

In addition, today it is necessary to clarify the concept of the object of taxation and to establish the corresponding analogous consequences in relation to new business models, for example, different types of electronic commerce in the form of sale of goods and trade, since the object of taxation in the course of such transactions has specific rules that distinguish it from the traditional concept of the object of taxation. For example, the issue of taxation of such transactions with VAT remains a controversial issue.

Digitalization has a significant impact on tax legal relationships. It affects the internal content of the processes of influencing public relations, expanding and transforming the ways of influencing the behavior of participants in tax relations.

The state increases the efficiency of the legal regulation mechanism with the help of an orderly and well-established system of technological processes, supplementing the traditional methods of legal regulation with technical means of ensuring their implementation, thereby making the work of tax authorities easier and the use of information more efficient. Digital technologies provide the law with the opportunity to regulate public relations in fundamentally new ways.

Based on the foregoing, we can conclude that the trends discussed in the article will only intensify, and the developed digital technologies will improve, leading to a change in tax law. For strategic purposes, the Federal Tax Service of Russia will develop electronic services further and move towards a complete transfer of interaction between tax authorities and taxpayers into electronic form.

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V. V. Komarova*

POLITICAL RIGHTS OF RUSSIAN CITIZENS IN THE DIGITAL ENVIRONMENT

Abstract. The article examines the problematic issues of the implementation of the political rights of citizens in the digital environment of a theoretical and practical nature. The author's approach to filling the term political rights is proposed and argued, using normative, essential, goal-setting and guarantee approaches, while consolidating subjective capabilities. The author's vision of filling the group of political rights is proposed.

The concept of the digital environment is formulated and various methods and mechanisms for the implementation of political rights using the latest technologies are analyzed.

It is concluded that after the constitutional reform, the political rights of citizens received new goals and objectives, for example, the implementation of mutual trust between the state and society, partnership models — new areas of use and application of political rights by citizens of modern Russia. The totality of the above allowed the author to draw a conclusion about the movement towards a new generation of political rights.

Keywords: Constitution, state, political rights, digital environment, forms of implementation, a new generation of political rights.

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Introduction

The issues of the influence of digital technologies, artificial intelligence through the use of computer programs and decision-making algorithms in the public sphere are increasingly attracting attention by the complexity and ambiguity of the problems of ensuring democracy.

In the context of the use of artificial intelligence by the state as a factor in increasing the efficiency of its activities within the framework of the implementation of the concept of “good governance” — an example of a reasonable policy, the process of stabilization and unification, neighborhood and sustainable development, as a factor of integrity and cohesion, including legal and ethical aspects, the rule of law and democracy, a rethinking of the well-established and seemingly unshakable concepts is required, first of all, in the sphere of public power and forms of direct democracy, mechanisms for the realization of political rights.

Changes in the forms of implementation of the function of the state, digitalization, the transformation of public life under the influence of the

implementation of the achievements of scientific and technological progress affect the mechanism for the implementation of political rights. In terms of the form of implementation, some political rights can be realized through IT technologies.

Disclosure of the topic “political rights in the digital environment” is possible in several aspects. Leaving beyond the scope of the problem caused by the lack of normative consolidation of the term “digital environment”, let us make an assumption about the allocation of a subgroup of political rights in the group of digital rights. In this case, it would be appropriate to point to the debate over the possibility of distinguishing a group of digital rights.

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Most, from the point of view of the author, the legitimate disclosure of the topic is possible through the consideration of new ways of realizing political rights using the possibilities of scientific and technological progress.

Digital environment: theoretical and legal aspects

The digital environment is a conditional concept, depending on the level of development of information and communication technologies, by which we mean additional (but not the only) opportunities for the life of public authorities: software that simplifies document flow procedures, control the implementation of powers and forms of interaction with other subjects of legal relations within the designated framework and other forms and procedures that exist in a special information space.

It can be defined as the technical and organizational conditions for the exercise of public power by individual and collective entities ”.¹

The digital environment, from the author’s point of view, to disclose the stated topic, can be used as new digital methods and mechanisms for the implementation of the enshrined political rights of Russian citizens enshrined in modern legislation.

Digital rights, digital state, digital democracy, digital government, and so on — a term that characterizes the state, democracy, government, as digital is used conventionally.

“Electronic democracy” is only an electronic form of the implementation of certain political rights or procedures in the mechanism of the implementation of a particular political right, receiving state and municipal services.² The emergence of new scientific terms, in order to avoid

substitutions, must be reasoned.³ The author does not consider it possible to use such a characteristic (“digital”, “electronic”) without changing the quality of the state, democracy, government, and so on. As of today, it can be stated that no such changes have taken place, but in the future it is quite possible.

Thus, the time to use the “digital” characteristic in modern conditions has not yet come.

Political rights: a new generation or a modern interpretation

In recent years, in the context of globalization, the widespread use of digital technologies, the very understanding of the term “political rights” and the content of the designated group are not stable.

The theoretical approaches to the definition of the concept of “political rights” by modern authors differ. According to the author, it is possible to distinguish normative, essential, goal-setting and guarantee approaches.

The traditional normative approach can be called widespread, which manifests itself in the indication of constitutional consolidation as one of the basic criteria in determining the basic political rights (regulated by the Constitution — A. Pyatak, established by the Constitution of the Russian Federation — M. L. Zhilina). Let us note the argumentation of M. L. Zhilina’s constitutionally established political rights: “in accordance with the goals and level of development of society and the state”.⁴

Modern authors include in their definitions of political rights their characteristics: “inalienable, ... (recognized as basic, necessary and natural, and derivatives, specified in the legislation) rights and freedoms”;⁵ NS. Ovsyannikov⁶ defines by means of the value category: “... .the part of

¹ Komarova V. V. “Legal foundations of sustainable development of municipalities” // Nevolskie readings - 2020 .: collection of reports of the International scientific and practical conference, Kirov, March 12, 2020 / Volgo-Vyatka Institute (branch) of the Kutafin Moscow State Law University (MSAL). Kirov: Obverse, 2020. 459 p.

² Komarova V. V. Electronic democracy - myths and reality // Uchenye zapiski Khujand State University. academician B. Gafurov. Series of Humanities and Social Sciences. 2016. Vol. 48. No. 3. P. 44—52.

³ Komarova V. V. Electronic democracy - an assessment from the standpoint of a constitutionalist // Scientific and practical journal “Scientific notes” Vladimir branch of the RANEPА, 2016. No. 1 (17). P. 110—113.

⁴ Zhilina M. L. Constitutional and legal restrictions on political rights and freedoms of citizens of the Russian Federation // Candidate of Legal Sciences dissertation. 2005, 204 p.

values recognized and protected in society and the state”.

An interesting approach to determining the place of political rights in modern legal reality and their task: “the most significant rights and freedoms, which are the backbone of democracy and a guarantee of other rights and freedoms of man and citizen”.⁷

Thus, the characterization and definition of the place of political rights in modern legal reality, their tasks in the aggregate can be defined as an essential approach.

We consider it legitimate to refer to it and formulate the criterion: “The main criterion for the allocation of political rights and freedoms is participation in the management of state affairs, interaction with state authorities”.⁸

The approach of goal setting proposed by the author is manifested in the characterization of the modern political and legal reality of the country and in the determination of the goals of this group of rights. In the works of constitutionalists, when defining political rights, it is found in various aspects. The narrowest and, in fact, traditional, characterizing scientific continuity, is “the management of state affairs and the exercise of power”;⁹ “The main purpose of granting political rights to citizens is to involve them in the life of the country, to manage its affairs”.¹⁰

As an example of expanding the goals of political rights, let us name the mention of political interests and needs associated “with the adoption and implementation of political and power decisions in a given state”;¹¹ the use of the political process and the political system (participation in the implementation of the functions of the political system;¹² in political processes, in the activities of the state and the entire political system of society).¹³

The constitutionally enshrined guarantee of human and civil rights and freedoms requires the use of a guarantee approach when defining the studied group.

Nevertheless, let us note its minimal use — an example of the use of the guarantee approach in the formulation of the concept of “political rights”, let us call the work of S. A. Afanasyev, where an emphasis is placed on different levels of guarantee of the possibility of participation in political processes: “political human rights can be defined as guaranteed by the norms of international and domestic law ...”.¹⁴

The refraction of scientific thought through the prism of the priority of human rights and freedoms as a constitutional value, according to the author, can manifest itself in the consolidation of the subjective capabilities of the carrier subject in the definition of political rights.

⁵ Zhilina M. L. Op. cit.

⁶ Ovsyannikov R. N. Constitutional and legal regulation of political rights and freedoms of citizens in the Russian Federation and the role of internal affairs bodies in their implementation: dissertation for the degree of candidate of legal sciences: Academy of Management of the Ministry of Internal Affairs of the Russian Federation. - Moscow, 2005. 204 p.

⁷ A. A. Pyatak Protection of political rights and freedoms of citizens by constitutional justice bodies in the Russian Federation and the United States of America: Comparative analysis: abstract of thesis ... cand. of legal sciences: 12.00.02 / Sarat. state law academy. Saratov, 2002. 33 p.

⁸ Lebedev V. A., Dudko I. G., Kuteinikov D. L. Human and civil rights and freedoms in the Russian Federation / edited by Professor V. A. Lebedeva M., 2021, p. 18.

⁹ Pyatak A. A. Op. cit.

¹⁰ Lebedev V. A., Dudko I. G., Kuteinikov D. L. Constitutional and sectoral status of the individual: theory and practice of transformation / edited by Professor V. A. Lebedeva M., 2021 p. 16.

¹¹ Ovsyannikov R. N. Op. cit.

¹² Zhilina M. L. Op. cit.

¹³ Afanasyeva S. A. Realization of political rights and freedoms of man and citizen: the example of the city of Moscow // Dis Candidate of Natural Sciences. 2009. P. 14. 208 p.

¹⁴ Afanasyeva S. A. Op. cit.

When formulating the definition of “political rights”, we use the enumeration, in our opinion, of subjective possibilities and their spheres of application:

- “... The ability of every citizen To satisfy their political interests and needs, primarily related to the adoption and implementation of political and power decisions in this state”;¹⁵
- “... the possibility of an individual ... to participate in political processes, in the activities of the state and the entire political system of society”;¹⁶
- “The opportunity to manifest oneself as an independent and free participant in the political process, to participate in the implementation of the functions of the political system as part of individual groups, associations, movements, etc., as well as to influence the organization and activities of the state, its organs and other subjects of the political system”;¹⁷
- “Representing the measure and type of possible participation of a citizen in the management of state affairs and the exercise of power”.¹⁸

There is, albeit rarely, the characterization of the subject — the bearer of political rights: “to every citizen of the Russian Federation due to his Russian citizenship”; “... an independent and free participant”.¹⁹ Doubt is the definition of “personality” by the subject-bearer.²⁰ Forms of realization of political rights are mentioned:

- “independently or jointly with other citizens” (RN Ovsyannikov, SA Afanasyeva);
- “As part of separate groups, associations, movements, etc.” (Zhilina M. L.).

Note the lack of normative consolidation of the basic, in the above definitions, terms — “political system”, “political process”, methods and criteria for identifying “political interests and

needs” as some defects that affect the mechanism for the implementation of political rights.

Based on modern realities, in the formulation of political rights, according to the author, it is advisable to use not only the normative and guarantee approaches traditionally used earlier, but also to strengthen the proposed new approaches (essential and goal-setting), on the basis of constitutionally enshrined new goals and objectives while consolidating subjective opportunities.

In our opinion, political rights and freedoms include a comprehensive right to participate in the management of state affairs: the right to elect and be elected, the right to a referendum, and equal access to state and municipal service; the right to association, the right to appeal, freedom of thought and speech, freedom of assembly, rallies, demonstrations.

The Constitutional Court of Russia expanded the boundaries of political rights, formulating the right to local self-government (Determination of the Constitutional Court of the Russian Federation dated 09.29.2015 № 2003-O), to exercise local self-government (Resolution of the Constitutional Court of the Russian Federation dated 02.04.2002 № 7-P, dated 18.07.2018 № 33-P, etc.), the right to participate in the implementation of local self-government (Determination of the Constitutional Court of the Russian Federation of 09.02.2016 № 337-O, etc.).

According to the author’s firm conviction, the constitutionally enshrined system of power in our country requires a broader approach to the consolidation of political rights: from Article 3 of the Constitution of Russia, which secured the multinational people as the bearer of sovereignty and the only source of power in the Russian Federation, i.e. collective right of the people — the main subject of the constitutional law of the Russian

¹⁵ Ovsyannikov R. N. Op. cit.

¹⁶ Afanasyeva S. A. Op. cit.

¹⁷ Zhilina M. L. Op. cit.

¹⁸ Pyatak A. A. Op. cit.

¹⁹ Zhilina M. L. Op. cit.

²⁰ Afanasyeva S. A. Op. cit.

Federation:²¹ the rights of a multinational people to power and sovereignty.

Let us note in this part the interesting, but not indisputable approach of A. V. Lebedev, who, based on the preamble and article 5 of the Constitution of Russia, calls the fundamental "... the right of the multinational Russian people to self-determination".²²

The Constitutional Court of Russia formulated not collective rights in the field of local self-government — the level of public authority, but collectively exercised: "the right to exercise local self-government, including by creating a municipal formation within the relevant territory, determining the structure of local self-government bodies of a municipal formation, can be realized only by the common efforts of citizens united by a community of residence and interests on a collective, joint basis" (Determination of the Constitutional Court of the Russian Federation of 29.09.2015 № 2003-O).

As part of the disclosure of the topic of political rights, it is advisable to mention a group of so-called border rights, which include the right to receive information and some others. These kinds of rights can be included in different groups of rights classified by scope: for example, the right to receive information can be included in the group of cultural and social rights, not only political ones.

The 1993 Constitution of the Russian Federation, having adopted the ideas of liberalism, fully consolidated the political rights and freedoms of Russian citizens. Nevertheless, it is obvious: the

list of political rights and freedoms cannot be exhaustive, since the development of social relations leads to the emergence of new opportunities for citizens in the field of state and socio-political life.

So, for example, a new, special form of direct democracy established by the President of Russia — the all-Russian vote. The Constitutional Court of the Russian Federation unambiguously characterized "the all-Russian vote as a special form of direct popular expression of will, to which the constitutional legislator, guided by the principle of democracy, in order to constitutionally legitimize his decision, had the right to apply for the adoption of a constitutional amendment".²³ In its conclusion, the Constitutional Court noted: "The all-Russian vote provided for by the Amendment Law has a special legal nature",²⁴ in fact, obliged the legislator to provide a legal mechanism for its implementation, and endowed citizens with another form of implementation of the complex constitutional political right — to manage state affairs.

In recent years, new elements have been created in the mechanism for the implementation of political rights. At the same time, the need for a prompt response to the needs of society increases, and there is also a search for innovative and effective technologies for interaction and work with civil society, constitutionally enshrined as a result of the constitutional reform of 2020.

As a constructive, open dialogue between the state and citizens, civil society institutions, to take into account various interests in the formation of public policy, innovative approaches and

²¹ The structure of the constitutional status of the people as a subject of the constitutional law of the Russian Federation includes constitutional legal personality; principles of the legal status of the people; sovereign rights and obligations; constitutional responsibility; guarantees of legal status. Kazmina A. A. The people as a subject of the constitutional law of the Russian Federation: Author. dis. ... Cand. Legal. Sciences: 12.00.02: Moscow, 2011. 24 p.

²² Lebedev A. V. Political rights and freedoms of citizens of the Russian Federation (Constitutional and legal research): Dis. ... Cand. Legal. Sciences: 12.00.02: Chelyabinsk, 2003.223 p.

²³ URL: <http://doc.ksrf.ru/decision/KSRFDecision459904.pdf>.

²⁴ Conclusion on the compliance with the provisions of Chapters 1, 2 and 9 of the Constitution of the Russian Federation that have not entered into force provisions of the Law of the Russian Federation on the amendment to the Constitution of the Russian Federation "On improving the regulation of certain issues of the organization and functioning of public authorities", as well as on the compliance of the Constitution of the Russian Federation with the procedure for entering into force of Article 1 of this Law in connection with the request of the President of the Russian Federation. // URL: <http://doc.ksrf.ru/decision/KSRFDecision459904.pdf>.

information technologies are becoming necessary, providing a new communication process.

In the modern Russian Federation, at the federal level, there are several electronic forms of exercising the political rights of citizens.

Thus, the implementation of the right of Russian citizens to participate in the management of state affairs (part 1 of Article 32 of the Constitution of the Russian Federation) is today possible, firstly, through a public (civil) initiative, using the Internet resource "Russian Public Initiative".

The mechanism of the Russian public initiative, established by the Decree of the President of the Russian Federation of March 4, 2013 No. 183 "On consideration of public initiatives directed by citizens of the Russian Federation using the Internet resource" Russian Public Initiative²⁵ "provides for the use of the Internet resource as the main and only way.

Secondly, by discussing draft normative legal acts of federal executive bodies with the help of the "Single portal for posting information on the development of draft normative legal acts by federal executive bodies and the results of their public discussion."

Thirdly, the implementation of active and passive electoral rights is possible through the GAS "Vybory", the "Mobile Voter" technology, and remote voting. So, in accordance with part 4 of article 3 of the Federal Law of May 29, 2019 No. 103-FZ "On conducting an experiment on

organizing and carrying out remote electronic voting at the elections of deputies of the Moscow City Duma of the seventh convocation",²⁶ an application for participation in remote electronic voting was carried out using a special software for the regional portal of state and municipal services of the city of Moscow. This also includes digital polling stations;²⁷ the ability to collect signatures using the FSIS "Single portal of state and municipal services" (from 23.05.2020).²⁸

Fourthly, a new format for exercising the right to participate in the management of state affairs can be called SAS "Management", SAS "Justice", GIS "Unified information system for managing the personnel of the state civil service of the Russian Federation", "Electronic government", "Electronic city", "Electronic Citizen", "Active Citizen".

Fifth, the right of citizens of the Russian Federation to apply (Article 33 of the Constitution of the Russian Federation) is implemented using new forms of filing through Internet resources: in electronic form, applying through Internet receptions to federal government bodies. Note that the use of the Internet resource "Russian Public Initiative" is also called the mechanism for the implementation of the right to appeal.

The legislation on appeals, given the modern possibilities for filing appeals, certainly lags behind the needs and realities.

²⁵ Decree of the President of the Russian Federation of March 4, 2013 No. 183 "On consideration of public initiatives sent by citizens of the Russian Federation using the Internet resource" Russian Public Initiative // *Sobranie zakonodatel'stva Rossijskoj Federacii*. 2013. No. 10, Article 1019.

²⁶ Federal Law of 23.05.2020 N 152-FZ "On conducting an experiment on the organization and implementation of remote electronic voting in the city of Moscow" // *Sobranie zakonodatel'stva Rossijskoj Federacii*. 2020, N 21, Art. 3231.

²⁷ Federal Law of 23.05.2020 N 151-FZ "On the extension for 2020 of the experiment on voting at digital polling stations in the additional elections of deputies of the State Duma of the Federal Assembly of the Russian Federation of the seventh convocation and elections to government bodies of the constituent entities of the Russian Federation" // *Sobranie zakonodatel'stva Rossijskoj Federacii*. 2020, N 21, Art. 3230.

²⁸ Federal Law of 12.06.2002 N 67-FZ (as amended on 31.07.2020) "On Basic Guarantees of Electoral Rights and the Right to Participate in a Referendum of Citizens of the Russian Federation" (as amended and supplemented, entered into force on 14.09.2020) // *Sobranie zakonodatel'stva Rossijskoj Federacii*. 2002, No. 24, art. 2253. Resolution of the CEC of Russia dated 04.06.2020 N 251 / 1852-7 "On the Procedure for Collecting Voter Signatures Using the Federal State Information System" Unified Portal of State and Municipal Services (Functions) // *Bulletin of the CEC of Russia*, N 5, 2020 ...

A. V. Savoskin distinguishes special subtypes of appeals — feedback and electronic appeals,²⁹ a special electronic form of proposals submitted exclusively on the Russian Public Initiative website (public initiative), electronic pre-trial (out-of-court) complaints. A new subspecies of citizens' appeals based on the criterion of the subject of the appeal — recall, A. V. Savoskin defines as follows: “A recall is a citizen's appeal containing an assessment of the activities of state authorities or local governments, as well as their officials ... other devices located in government or local government bodies, as well as by phone ”.³⁰

We agree with A. V. Savoskin is that in order to use the electronic method of submitting various types of applications, it is necessary to use the Internet, registration and authorization on the State Services portal. The analysis of practice made it possible to distinguish three ways of sending applications: the most common — by e-mail, often used — through the electronic reception of the addressee's official website on the Internet, through specialized state Internet portals.³¹

However, this, as well as lightened (or replaced by other verification methods) requirements for registration (In electronic requests the signature and date are not required details, maybe an electronic digital signature is used), but this does not change the essence of the appeal, its legal consequences.

Nevertheless, the named A. V. Savoskin, the main advantages of the electronic method of filing applications deserve support: “... 1) 24/7 availability — an appeal can be sent both at night and on weekends; 2) the ability to send an appeal

from any point in space where there is access to the Internet (including from abroad); 3) free of charge — sending an appeal is absolutely free, except for the fees for using the Internet; 4) efficiency — there is no need to waste time visiting a postal operator ”.³²

But also require expansion: common portals for all residents of the country ensure the principles of equality and unity of legal space; allow a citizen to feel like an active, significant part of a large country, and the promptness of solving the issues raised in the appeal at various levels is the basis of citizens' confidence in the authorities and awareness of the reality of the constitutionally enshrined sovereignty of the multinational people of Russia.

Internet receptions are another new way of contacting public authorities, which is still little used. A successful example is the Electronic Reception of the President of the Russian Federation (EP), an information and telecommunication system that provides direct communication with the Reception of the President of the Russian Federation for receiving citizens in Moscow through a network of terminals installed in the buildings of local governments in 194 cities with a population of over 70 thousand people. located at a distance of 100 or more kilometers from the nearest reception centers.

The terminal provides: transmission of an appeal in the form of an electronic document;³³ transmission of an oral appeal; personal reception by appointment in video communication with an authorized person — an employee of the Reception of the President of the Russian Federation for the

²⁹ Part 3 of Art. 8 of the Federal Law “On the Procedure for Considering Applications of Citizens of the Russian Federation” introduced the concept of “appeal in the form of an electronic document” // Federal Law of 27.07.2010 No. 227-FZ (as amended on 03.12.2012) “On Amending Certain Legislative Acts of Federation in connection with the adoption of the Federal Law “On the organization of the provision of state and municipal services” // *Sobranie zakonodatel'stva Rossijskoj Federacii*. 2010. No. 31. Art. 4196

³⁰ Savoskin A. V. Appeals of citizens in the Russian Federation (constitutional and legal research) Thesis for the degree of Doctor of Law. Yekaterinburg 2019, p. 381.

³¹ The use of electronic terminals located in the authorities and intended for filing complaints is a type of electronic submission. Such terminals must be installed without fail in the places of provision of state (municipal) services for filing pre-trial complaints, sometimes they are used to submit any other appeals.

³² Savoskin A. V. Op. cit. P. 365.

reception of citizens in Moscow, etc.³⁴ EDS have been created and are operating in the federal districts.

There are Internet receptions for the Human Rights Ombudsman in the Russian Federation, the Public Chamber of the Russian Federation, and in some government bodies of individual constituent entities of the Russian Federation.³⁵ You can send an appeal in the form of an electronic document to some authorities of the subjects of the federation.³⁶ Turning to the results of studies of the “pandemic time” from the point of view of the implementation of the power of the people, we have to state that the guarantee of sustainable social and economic development of the territory is an equal dialogue between the government and society — the democracy of participation.

It is appropriate to emphasize: in the modern world, the work of government bodies has acquired new, highly demanded forms on the Internet platform. It is well known that in an open format on the Internet, information from public authorities, which is called “first hand”, is a guarantee of people’s trust.³⁷

We note the expansion of opportunities for the realization of the right to information, as the basis for the realization of political rights and the implementation of participatory democracy — live webcasts of meetings, speeches.

The mechanism for the implementation of the same right can be called the law “On ensuring access to information on the activities of state bodies and local self-government bodies” Russia. The law provides for the placement of a significant amount of information on the websites of public authorities.

It is possible that posting all information regarding the requests of deputies (parliamentary request, parliamentary request) in the public domain on the websites of public authorities and using other mechanisms of IT technologies on the Internet will help public control, the relationship between voters and parliamentarians, which will lead to increase the confidence of citizens. From the author’s point of view, it is already advisable to consolidate this obligation for public authorities, since even at the level of the federal parliament this kind of information about parliamentary inquiries is not available on the official website.

In some regions, Web 2 services are actively used. Of course, the federal cities of Moscow and St. Petersburg can be an example of their use. However, there are positive examples in the constituent entities of the Russian Federation. For example, in the Belgorod region there is an Internet portal “People’s Expertise” created by the Department of Internal and Personnel Policy. “This online platform is a regional portal that allows every resident of the region to take an active part in the development of the region. So far, the

³³ Typed using the keyboard, converted from paper, transmitted from an external electronic medium.

³⁴ Provision of information by the information and reference service of the Administration of the President of the Russian Federation; access to information about the work of the reception offices of the President of the Russian Federation, reviews of applications from citizens, organizations and public associations, the results of their consideration and measures taken on them; regulatory legal acts governing the procedure for considering applications.

³⁵ Dneprovskaya N. V. Digital transformation of interaction between public authorities and citizens // Public administration. Electronic bulletin. URL: <https://letters.astrobl.ru/send>

³⁶ To the Governor, the Government, the Head of the Municipal Formation of the Moscow Region URL: <https://www.mos.ru/feedback/reception/>

³⁷ According to the results of the annual survey of the Infometr project center, the average openness of regional sections / open data portals is about 54% (it is almost equal to the information openness of the highest regional executive authorities based on the results of the 2019 audit - 57%). 43 constituent entities of the Russian Federation have a single portal for posting open data, 16 post open data on the federal portal data.gov.ru, and 24 - on the websites of various executive authorities. At the same time, the average openness of data on unified regional portals is 63.8%, on the websites of various authorities - 43.7%, and on the federal portal data.gov.ru - 49.5%. The openness of the open data portals in Moscow and St. Petersburg is 97.7% and 83.6%, while the information openness of their government websites is 46.2% and 65.6%, respectively // URL: <http://system.infometer.org/ru/monitoring/546/rating/> (date accessed: 05/01/2021).

main idea of the project has little justified itself, since citizens leave mostly complaints that are in the nature of a complaint, which cannot be called active participation of citizens in the development of their municipality, a subject of the federation ”.³⁸

The provision of electronic interaction between citizens and public authorities of the Republic of Sakha (Yakutia) occurs within the framework of the functioning of the “People’s Control” module of the official information portal of the Republic of Sakha (Yakutia).³⁹ The interregional public movement “Narodny Kontrol” works in most of the subjects of the federation (according to the site — in 46 out of 85), most actively in the Republic of Tatarstan, the Sverdlovsk region, the city of Moscow.

From our point of view, it is advisable for public authorities to use social networks (Federal legislative (representative) authorities are also represented in social networks: the State Duma of the Federal Assembly of Russia is represented on VKontakte, Facebook, Twitter, Odnoklassniki, Instagram. The Federation Council has a little more «international» orientation in social networks: VKontakte, Facebook, Twitter, Youtube, Livejournal, Flickr).

In our opinion, the following institutions can become dialogue platforms for authorities and civil society institutions, primarily public associations: Public chambers, Councils of municipalities and the events they hold (expert discussions, etc.) technologies Web 2, as the least expensive (which is important in the current economic conditions) and most used by residents to solve everyday issues.

We agree with the following: “The main advantage of web 2.0 technologies, which underlie

social media, is that a user from a content consumer becomes an active subject, that is, he can create his own content, react to the information received, distribute it, create and join various community. With the advent of Web 2.0, the vector of business interaction has ceased to be one-sided. Citizens get the opportunity to timely respond to administrative initiatives and events taking place in the life of the district, city, country ”.⁴⁰

Dynamic technological development not only transforms the existing reality, but also creates additional social spaces. Modern technologies are moving towards the virtual reality world, which is shaping new social relationships.

However, in order to comply with the previously mentioned norms, maximum Internet accessibility for Russian citizens is required. As polls show, there are several problems in the designated area: lack of free access (computers, the Internet), skills, opportunities and desire.

Meanwhile, according to the provisions of the Federal Law of 27.07.2010 № 210-FZ “On the organization of the provision of state and municipal services”,⁴¹ the Internet occupies a significant place in the fixed mechanism.

The previously posed problem of the unity of the legal and information space and the obligation of the state to provide equal opportunities to its citizens has not yet been resolved⁴² and has become even more urgent.

Leaving the institutional support of the activities of public authorities with digital technologies⁴³ outside the scope of a detailed study, we note the existing problem of digitalization of the level of municipal government — local self-government.

In the recent past, a legal form was incorporated — public services (state and municipal).⁴⁴

³⁸ URL: http://www.irkp31.ru/institute/structure/narodnaya_ekspertiza.php/ (accessed: 10.04.2021).

³⁹ URL: <https://control.org.ru/life/> (accessed: 10.04.2021).

⁴⁰ Dneprovskaya N. V. Digital transformation of interaction between public authorities and citizens // Public administration. Electronic bulletin. 2018. No. 67, p. 96—100.

⁴¹ *Sobranie zakonodatel'stva Rossijskoj Federacii*. 2010. No. 31.

⁴² Komarova V. V. The unity of the legal information space in Russia (modern means of achievement) // *Information security of the regions*. 2012. No. 2 (11). P.98-103.

⁴³ Providing digital means of control over the entry / exit of employees, “electronic, digital work books”, transfer of wages to bank accounts of employees, payroll cards, etc.

When public authorities exercise their powers to provide services, innovative forms are also used, for example, multifunctional centers.

In conclusion, we note that information and telecommunication technologies must certainly be included in the mechanism for implementing the constitutional imperative of democracy in the Russian statehood, political rights and freedoms of citizens of the country.

Conclusion

At first glance, the constitutional amendments do not relate to political rights, but the need for their systematic perception is due to the unity of goals and interdependence in achieving the goals of political rights and constitutional amendments. For example, various types of solidarity (economic, political and social solidarity, solidarity between generations) ensure mutual trust in society between its members, society and the state, citizens and public authorities.

Historically established state unity should become the basis and ensure civil peace and harmony in the country, continuity in the development of the Russian state, which together should also be the basis of mutual trust between the state and society.

Political will is often not enough, it should be accompanied by financial and economic opportunities, and the support of citizens of the country, civil society institutions. It is well known that without the trust and support of citizens, the most advanced ideas may not be realized. Citizens' support can be expressed, *inter alia*, through the active use of political rights.

Trust in the authorities, according to the author, is a traditional value and today is enshrined constitutionally — after all, it is she, the government, its system, the formation procedure and

powers that were established by the Constitution of Russia adopted at a popular vote. Despite this, the crisis of confidence in the authorities in modern Russia is obvious and requires not only a scientific understanding of the reasons, but also a strategy for overcoming this crisis. At the present stage of development of Russian society, it is necessary to form an “ideology of trust”, where trust will act as a key resource for development, including a multi-party system, being the guarantee of the unity of interacting subjects.

The trust of citizens in the authorities, in the state forms the prospect, not only of a constitutional state, but also of sovereign statehood, sustainable development and social progress, as well as the formation of a just civil society. In the absence of trust, the named prospects are at the same time risks of non-fulfillment, the admission of which is equal to the collapse of statehood in the near future. It seems that the consolidation of the term trust at a different level: not only between state authorities, but also mutual trust between the state and society, will allow the legislator to use additional mechanisms of constitutional significance.

Prevention of risks in the field of political rights can be carried out through the use of a constitutionally enshrined model of partnership, and constitutional goals and objectives are the basis for expanding the scope of use and application of political rights by citizens of modern Russia: the implementation of mutual trust of the state and society, a model of partnership in modern Russia.

Highlighting modern approaches to the definition of “political rights” and filling this group, we can conclude that responses to the challenges of today, reflected in doctrinal definitions, require new forms of realization and new rights, which together can be defined as a movement towards a new generation political rights groups.

⁴⁴ Federal Law of 27.07.2010 N 210-FZ “On the organization provision of state and municipal services” // *Sobranie zakonodatel'stva Rossijskoj Federacii*. 2010. No. 31.

M. A. Egorova*

FEATURES OF DETERMINING THE LEGAL PERSONALITY OF ARTIFICIAL INTELLIGENCE IN THE CONTEXT OF TEACHING DISCIPLINES IN THE FIELD OF INTELLECTUAL PROPERTY IN THE CONTEXT OF DIGITALIZATION

Abstract. The article examines the problems of determining the legal personality of artificial systems in the context of the development of the institution of intellectual property, intelligence is relevant and the improvement of teaching IP. The article outlines the problem of training legal personnel in the field of intellectual property for the digital era, who have knowledge and competencies in the legal regulation of artificial intelligence technologies.

Keywords: legal personality, legal capacity, artificial intelligence, intellectual property, educational process, training of legal personnel.

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The most important area of legal regulation in the context of globalization is to ensure information security of the state and society. Digitalization as a challenge to legal science from the standpoint of discussion and development of new instruments based on the harmonization of law contributes to the creation of new regulatory conditions for a more effective improvement of legal regulation.

As rightly noted by V. V. Blazheev “Attempts of state regulation of artificial intelligence both in Russia and in other countries of the world have pushed researchers in the field of law to pose problems related to the need to create an effective mechanism for the legal regulation of artificial intelligence, creating a clear delineation of areas of responsibility between developers and users of

systems with artificial intelligence and the technologies themselves, the introduction of unified ethical principles for such systems.”¹

V. N. Sinyukov also draws attention to the influence of technology on the development of legal regulation, noting that “The progress of technology radically changes the way of life of people, the economic order, and this requires innovative

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¹ Blazheev V. V. Foreword // Legal regulation of artificial intelligence in a pandemic and infodemic “: mLonograph edited by VV Blazheev, MA Egorova ; Kutafin Moscow State Law University (MSAL), Moscow: Prospect, 2020. 240 p.

legal regulation.²² In the context of global digitalization, artificial intelligence technologies are increasingly influencing various areas of human activity.

Decree of the President of the Russian Federation of October 10, 2019 No. 490 “On the Development of Artificial Intelligence in the Russian Federation” defines artificial intelligence as a set of technological solutions that makes it possible to simulate human cognitive functions (including self-learning and search for solutions without a predetermined algorithm) and receive when performing specific tasks results comparable, at least, with the results of human intellectual activity. It is emphasized that the complex of technological solutions includes information and communication infrastructure, software (including the one that uses machine learning methods), processes and services for data processing and finding solutions.⁴

In accordance with the National Strategy for the Development of Artificial Intelligence for the period up to 2030, conditions must be created for effective interaction between the state, organizations, including scientific organizations, and citizens in the development of artificial intelligence, which will allow Russian artificial intelligence technologies to occupy a significant share of the world market.

Legal personality, as you know, includes legal capacity, legal capacity and delinquency. It is important to study the transformation of approaches to teaching legal disciplines³ in the field of intellectual property, in particular, aspects of the legal personality of artificial intelligence.⁴

With the development of the digital economy, the professional legal environment is changing. Artificial intelligence technologies penetrate both the process of education and training of modern

lawyers, and theoretically they are introduced into the thematic plans of specialized legal disciplines. The use of artificial intelligence in education allows solving the problems of improving the quality of education at a qualitatively new level, moving on to individualization and personalization of education. It is education that is one of the promising areas of using artificial intelligence. It is predicted that by 2025, the market for artificial intelligence in education in the advanced countries of the world will grow by 50 %.

The development of new models of artificial intelligence and machine learning requires a high level of competence in several areas of knowledge. The drivers of the informatization of universities are not only the accumulated systemic problems of universities, but the transition of artificial intelligence technologies to a qualitatively new level. Over the past few years, machines have managed to break the barrier of gesture identification and speech recognition.

The next goal of artificial intelligence developers is to create and improve virtual devices. Priorities for the implementation of digital innovative methods in education:

- 1) more effective use of digital technologies for teaching and learning;
- 2) development of relevant digital competencies and skills for digital transformation;
- 3) improving education through better data analysis and forecasting.

The indicated capabilities of AI determine them also to be considered through the prism of intellectual property, since digital educational technologies can be objects of intellectual property.⁵

Educational programs for training legal personnel need to be improved. In a professional environment, issues of educational standards and

² Sinyukov V. N. Law of the XX and XXI centuries: continuity and novelty. *Lex russica* (Russian law). 2021; 74 (2): p. 11.

³ Moreva S. N. Ways of developing the legal profession and legal education in the digital economy: remarks and discussions // *Law and state: theory and practice*. 2019. No. 2 (170). S. 127—131. P. 129.

⁴ Fedoseev S.V. Applied concept of teaching the academic discipline «Legal Informatics» // *Legal Informatics*. 2017. No. 4. S. 14—23. P. 15 ; Zhukovskaya N.Yu., Kalinina E.V. Transformation of the system of training lawyers in the digital economy (organizational and managerial aspects) // *Trends and Management*. 2018. No. 4.P. P. 12.

⁵ Valkirny S.A. Educational content as an object of copyright / Materials of the V International conference «Law: history, theory, practice». SPb. 2017. P. 76—80. P. 78 ; Daineko E.Yu., Chumakova V.V. Intellectual property and the formation of digital educational programs // *Bulletin of economic theory*. 2019. No. 1. P. 50 ; Daineko E.Yu. Influence of digital technologies on the development of the institution of intellectual property / Materials of the XIII international scientific and practical conference «Global

competencies are discussed for the readiness to work in a digital society, a new economy.

The legal profession is one of the most conservative, but information technology in the activities of lawyers, both users and in the future of their further work, protection of the rights of digital objects, of course, one should move from a conservative approach to dynamic trends and the integration of law with other branches of knowledge. Moreover, the tendency of variability is inherent in legal norms.

When training lawyers in the field of intellectual property, one should take into account the challenges of the information society, and, due to the proliferation of artificial intelligence systems, teach new professional competencies for the protection and protection of intellectual property rights.

In fact, at this stage, it is necessary to develop a new concept of training legal personnel for the institution of intellectual property, while answering the question of whether lawyers are ready to work in the digital economy and its challenges. It is possible to discuss also a separate specialization of lawyers in the field of intellectual property for objects with AI technologies.

This is especially true of copyright, since it is proposed to recognize the rights to works created with the help of AI for its developers. The issue of copyright for quasi-works created by AI is controversial, but this issue will definitely be addressed in the not too distant future. In particular, three solutions to this issue are proposed: the first is not to make any changes to the legislation, to leave everything as it is, since according to Art. 1257 of the Civil Code of the Russian Federation, the author of a work is a citizen whose creative labor it was created; the second is the assignment of exclusive rights to such works to the creator, or copyright holder of the AI; the third is to endow AI with legal personality, with the transfer of exclusive rights to the created quasi-works to it, without affecting the exclusive rights to AI themselves.⁶

Training of lawyers with theoretical knowledge and applied skills in the field of legal support of

business processes related to intellectual property based on AI technologies, capable of solving complex, multi-level tasks by type of professional activity, judicial protection of intellectual rights, possessing a high level of knowledge of the conceptual apparatus, including on artificial intelligence systems, world practice in the field of legal regulation of digital technologies, artificial intelligence and robotics, on the basis of which to develop and substantiate legal positions of law enforcement.

Digitalization is a certain challenge for the field of legal education, training of lawyers, in general, in digital law.

Abroad, the training of lawyers in the field of intellectual property in the digital age is based not only on basic fundamental courses, but also short-term practical courses are becoming widespread,⁷ especially if we bear in mind a rather narrow issue — the protection of rights related to AI. We offer unique courses aimed at obtaining a versatile legal education in a short time in the field of intellectual property.

In Russian universities, according to the programs of legal training, it is proposed to expand the courses of additional education and professional retraining, new master's programs, localized under the legal regulation of artificial intelligence technologies. Probably, this task relates to the future, but we need to consider them as promising already now.

Courses are maximally oriented towards practice, with the study of the main institutions of intellectual property law: copyright and related rights, patent law, trademark law, legal regulation of domains. Include sections of intellectual property in software, artificial intelligence, the Internet of Things and big data, combining elements of legal theory, comparative jurisprudence and modern law enforcement practice, with a focus on the latest artificial intelligence technologies.

Such integration will allow students to formulate the provisions of the modern concept of intellectual property rights, the meaning of intellectual property rights in a digital society. Students should learn to apply the norms of intellectual property law, draw

⁶ The State Duma proposed to assign the rights to intellectual property created with the help of AI to its developers. URL: https://zakon.ru/blog/2020/11/14/v_gosudarstvennoj_dume_predlozhili_zakrepyat_prava_na_intellektualnuyu_sobstvennost_sozdannuyu_s_po (accessed: 07.10.2021).

⁷ Intellectual Property Law in Digital Age. URL: <https://www.coursera.org/learn/intellectual-property-law-in-digital-age> (accessed 07.10.2021).

up and analyze license agreements, know the basics of international legal protection of intellectual property and world practice of legal regulation of artificial intelligence technologies, analyze non-standard situations of law enforcement practice, anticipate potential legal risks and minimize them.

Another option for more advanced training involves comprehensive legal training in the field of intellectual property and digital law. Advanced specialization allows the formation of in-depth competencies and professional practices, thus, students gain an understanding of the technological and economic environment of the digital society,

including the international and European aspects of digital activities.

Thus, in the digital economy, approaches to teaching legal disciplines are being transformed. In the context of teaching disciplines in the field of intellectual property, the importance of integrating law and economics is increasing, which makes it possible to expand the methodological basis of legal disciplines, timely take into account and reflect changes in the applied aspect of artificial intelligence technologies, in particular, the possibility of considering them as objects of intellectual property.

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LEGAL ASPECTS OF DIGITALIZATION OF THE FOREST INDUSTRY

Abstract. In accordance with the Strategy for the Development of the Forestry Complex until 2030, the main direction of digitalization of the forestry complex is the improvement of information and analytical support for management activities.

The authors of the article showed that today the forestry complex of Russia is in great need of digital management technologies. Digitalization in forestry provides for a radical modernization of all existing information systems, their mutual integration and data exchange both with the information systems of public authorities, as well as systems used by the business community.

According to the authors, digitalization of the forestry complex should become a digital basis for the provision of public services and government functions in the field of forestry and replace (integrate) disparate regional and sectoral information systems that are currently used in forestry.

The authors substantiated specific proposals for the digitalization of the forest industry. In particular, the article shows that digitalization of the forestry industry has its own, quite limited capabilities and performance criteria.

Influencing the change in the technological structure, making the transition from a low level (deforestation and selling timber) to higher levels (manufacturing products), searching for new trade niches and meanings in forest use, should accompany innovative activities in forest use.

Keywords: digitalization, forestry, forestry complex, digital transformation, management informatization, digital economy.

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Introduction

Forest resources have always occupied and continue to occupy a unique and key position in the socio-political and economic activities of the country. However, in economic terms, the forestry sector of our country is extremely ineffective. For many decades, the use of our forest resources has been largely extensive. Today we can state that the Russian timber industry complex is not among the leading branches of the Russian industry.

Moreover, the imperfection of the existing mechanisms for managing the forestry complex makes this sector of the economy one of the most corrupt.

The President of the Russian Federation described the state of affairs in the forestry industry in the following way: “What is happening there does not fit into any gate at all. And the main principle here, unfortunately, remains: take the

volumes at any cost, and then at least the grass does not grow. And it does not grow — neither grass nor forest grows. Because the so-called gray schemes for the allocation of forest plots became widespread practice, and in general, fraud flourished as never before, plundering simply went off scale, predatory, illegal logging flourished”¹.

Today, the problems of conservation and use of forests are becoming more diverse and

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¹ Victoria Abramchenko: The law on digitalization of the forest complex will whitewash the industry // URL: https://www.1tv.ru/news/2020-10-04/394423prezident_predlozhit_reshenie_problemy_unichtozheniya_lesov_v_rossii_chernymi_lesorubami.

complex. Forest management standards are changing and are rapidly going digital. First of all, this is the fulfillment of the first most important task set by the President of the country — the creation of legal conditions for control over all stages of timber turnover.

According to Deputy Prime Minister V. V. Abramchenko, this will ensure reliable accounting of the qualitative and quantitative characteristics of forest resources, and will reduce the damage from illegal logging. All transactions with wood, including those that previously fell into gray circulation, will be registered in the state information system. Better control over timber turnover will be the engine for increasing the profitability of the forestry industry. The implementation of new approaches will increase the contribution of forests to the country's economy.²

In order to understand the immensity and complexity of the tasks of digitalization of the forest industry, it is necessary to remember that the area covered with forest vegetation is 795 million hectares (46.4 percent of the area of Russia). At the same time, 96 percent of the forested area (766.6 million hectares) falls on the share of forest fund lands. The share of the forestry complex in the structure of Russia's gross domestic product at the end of 2019 amounted to 0.74 percent, and the contribution to the country's budget system amounted to 144.6 billion rubles.³

The main directions of digitalization of the forest industry

Digitalization should cover not only the economy and management of the forest industry, but also reforestation, and wood processing, and transportation, infrastructure, environmental safety, biodiversity, hunting grounds, tourism, the state of water, animals, plant (other than wood) resources.⁴

The modernization of the economy and forestry management is only the first stage of digitalization. The ultimate goal is to optimize all aspects and aspects of ecological and economic activity not only in timber harvesting, but also in forest management as a single (integral) natural community.

The following factors will influence the success of the digitalization of the forest industry:

- clear designation in the legislation of the framework, volumes, procedures and place of digitalization in the forestry complex management system;
- consolidation in the legislation of the goals, objectives, standards, including efficiency, of the process of digitalization of the forestry industry;
- direct reference to the main beneficiaries (beneficiaries) of digitalization and expectations from digitalization expressed in numbers and performance benchmarks;
- wide availability of a database on forests, all industry participants, transactions, monitoring of reforestation, environmental and economic characteristics of forest management;
- combining databases on forest management with databases on other types of nature management — water resources, subsoil use, tourism, settlements, infrastructure, economic agents into a single database;
- extensive training and equipping with the necessary equipment (technology) of personnel in the field of forest management;
- creation of a competitive environment from private entrepreneurs and government agencies on the basis of innovative ways of developing the forest industry.

An important issue that directly relates to the effectiveness of digitalization of the forestry industry is strategizing. The fundamental strategic documents in the field of digitalization of forestry are the Strategy for the Development of the Information Society, the Strategy for Innovative Development, the Program “Digital Economy of the Russian Federation”, the Forecast for the development of the forestry sector of the Russian Federation until 2030, as well as the Strategy for the Development of the Forestry Complex of the Russian Federation for the period up to 2030.

The key element of the digital transformation of forestry should be the transparency of all transactions, conditions and forms of forest use, the elimination of the corruption component, “coercion” to restoration and environmentally friendly technologies.

Digitalization of the forestry complex will allow you to receive, process, store and use information about the state of forests, about their

² Victoria Abramchenko: The law on digitalization of the forest complex will whitewash the industry

³ Order of the Government of the Russian Federation dated February 11, 2021 No. 312-r.

⁴ Zhavoronkova N. G., Shpakovsky Y. G. Ecological and energy problems of the fourth industrial revolution: legal aspects // *Lex russica*. 2019. № 10 (155). P. 53—62.

quantitative and qualitative characteristics, their use, protection, protection and reproduction, the reliability and efficiency of providing information for making management decisions; the accuracy of planning measures for the protection, protection and reproduction of forests; the effectiveness of monitoring the implementation of plans and ensuring the assessment of the effectiveness of the implementation of measures.⁵

An indication of the creation of a unified automated information system of the Federal Forestry Agency as a common platform for providing information and analytical support for the activities of officials is laid down in the Forecast for the development of the forestry sector of the Russian Federation until 2030.

Unfortunately, both in the Strategy for the Development of the Forestry Complex of the Russian Federation until 2030 and in other documents, it is mainly about supporting projects for the development of processing industries; providing reliable up-to-date information on forest resources, increasing the efficiency of state forest management; transition from an extensive model of forest development to intensive use and reproduction of forests based on the zonal-regional principle.

As a result of the implementation of the Strategy, by 2030 it is expected that the added value created by the enterprises of the industry will increase in the strategic scenario to 1136 billion rubles, as well as an increase in the contribution of the forestry complex to the gross domestic product from 0.74 percent to 1.5 percent.

The number of personnel employed in the forestry complex will grow from 617 to 820 thousand people. Tax revenues to the budgets of the budgetary system of the Russian Federation will grow from 134 to 215 billion rubles (In constant prices).⁶

In our opinion, for a full-fledged and systematic digitalization of the forest industry, it is necessary to seriously increase the importance of preserving the ecological potential of forests; maintenance of genetic, species, ecosystem and landscape diversity, climatic and biological characteristics.

The digitalization of the forest industry includes (or should include) full monitoring information on the state of forest ecosystems, the

volume of deforested forests, forest fires and diseases, biodiversity loss, damage to ecosystems.

Improving the efficiency of the forest industry, including through digitalization, can be ensured by the further development of forest management tools such as state forest inventory, forest management, forest monitoring system (federal state information system “Information system for remote monitoring of the Federal Forestry Agency”), reproduction monitoring forests and radiation conditions in them, forest pathological and forest fire monitoring.

Modern problems of digitalization of the forestry complex

The digitalization of forestry in the Strategy for the Development of the Forestry Complex of the Russian Federation until 2030 requires sustainable forest management, effective and innovative development of the use, protection, protection and reproduction of forests, ensuring outstripping growth rates of the forest sector, environmental and social security of the country, fulfillment of international obligations regarding forests; increasing the long-term competitiveness of the forest industry and increasing the contribution of the forestry complex to the social and economic development of Russia. In the process of creating a unified information and management system “forest resources”, it is necessary to rely on the possibility and necessity of wide participation of the population in the information field being created.

It is worth recalling the Regulations on the federal state information system of public control in the field of environmental protection and nature management (approved by the Decree of the Government of the Russian Federation dated September 8, 2017 No. 1082.

At present, the annual volumes of reforestation in Russia have stabilized at the level of 800 — 900 thousand hectares. This is not enough for a complete forest restoration, all the more it is necessary to take into account the replacement of high-quality forests with low-quality ones. According to the Accounts Chamber of the Russian Federation, as of January 1, 2018, the reforestation fund was 32,728.8 thousand hectares. At the same time, work on reforestation annually does

⁵ Zhavoronkova N. G., Vypkhanova G. V. Legal problems and directions of improvement of public administration in the field of forest relations // *Lex russica*. 2017. № 2.

⁶ Order of the Government of the Russian Federation No. 1989-r of 20.09.2018 “On Approval of the Strategy for the Development of the Forest Complex of the Russian Federation until 2030”.

not exceed 2.9% of the area of the reforestation fund, although the current costs of reforestation are constantly growing.⁷

The strategy for the development of the forestry complex of the Russian Federation for the period up to 2030 gives grounds to formulate problems in an integrated manner, taking into account international competition, global factors (ecology, climate formation, biodiversity), which is the strength of the Russian Federation on world sites. This approach makes it possible to formulate not only the goals of increasing the efficiency of forest management, but also the preservation of forests as part of the global ecosystem.

According to the latest data, when assessing options for the efficient use of forest resources and long-term planning, the standard (traditional) usefulness (values) of forests, such as wood and its use as fuel, building material, etc., can change dramatically.⁸

Such options (forecasts) of using the forest as a global resource should be more strongly and more specifically reflected in the Strategy. This is one of the shortcomings of the Strategy and planning documents, especially in terms of the legal and regulatory framework and the technical and regulatory framework governing the use and reproduction of forests. In practice, this means the need for a gradual assessment of the benefits, primarily for the business and economy of the country, of the ecological potential of forests.

Focusing on the issues of digitalization of the forestry industry, in our opinion, many authors and legislators are overlooking several fairly fundamental issues.

1. What will be the criterion (indicator) of the ecological and economic efficiency of the introduction of the forest “digitalization” system?

2. Who will be the main “beneficiary” of digitalization?

3. To what extent and how digital technologies are able to take into account and aggregate the “ecological” component of “forest management”?

4. What are the prospects for the “monetization” of forest management, biodiversity, climatic and space-socio-cultural generative functions of the forest?

The questions are very difficult. For example, now all the main methods and Internet platforms for digitalization of the forest practically do not create an integral digital object “forest”, but use the functionality of the “forest resource”, i.e. a commodity feature of the forest. In fact, it is digital technologies and modern databases that make it possible to model forest efficiency in the form of a “harvest — processing — reproduction” matrix.

The question of the impact of digitalization of the forestry industry on improving the efficiency of forest protection and protection remains important. The main problems of legislative regulation of forest relations from the point of view of protection and protection of forests are:⁹

- conflicts between state ownership of the forest and the form of management;
- privatization (In fact) of suburban, rural, recreational, field-protective forests;
- destruction of the system of forestry enterprises, forestries, forest protection, aviation forest protection, scientific organizations, personnel training, continuity;
- deterioration of conditions for forest use and reforestation;
- shortcomings of the lease form of forest use, sublease;
- elimination of forest zoning and reservation, construction of forest harvesting areas, spawning grounds, recreational areas;
- combining the mechanism of state management and forest felling;

⁷ Verification of the effectiveness of the use of budgets of the budget system of the Russian Federation and extrabudgetary sources in the implementation of measures to assess the state and accounting of forest resources of the Russian Federation for 2015-2017 and the past period of 2018 // Main provisions of the report on the results of the control event. Approved by the Board of the Accounts Chamber of the Russian Federation on December 19, 2018.

⁸ Stepanova Yu.N. Digitalization as a new factor of influence on the development of entrepreneurship in the forest sector of the economy // Actual directions of scientific research of the XXI century: theory and practice. 2018. T. 6. № 7 (43); Evchenko A. V., Vertakova Yu.V. Analysis of the main program and strategic documents in the sphere of using digital technologies in the management of forestry in Russia // Natural-humanitarian research. 2020. № 27 (1). P. 92—98.

⁹ Shpakovsky Yu.G. Modern problems of legal regulation of forest protection from fires // Lex russica. 2018. № 1 (134). C. 43—56.

disadvantages of the auction form of forest use;

- pricing in the forestry industry;
- problems related to the realization of the rights of citizens to stay in forests and use forest resources.

Unlike Western counterparts, forestry relations in Russia are not fully integrated into the market and are not transparent for society, there are no restrictions in the form of environmental factors, and there is no sustainable forest management.

Among the tasks set by the President of the country is the cessation of illegal logging. The total amount of damage from illegal logging, according to the Prosecutor's Office of the Russian Federation, is about over 15 billion rubles. in year. On the facts of illegal logging in 2009, 17,425 cases were transferred to the investigating authorities, 12,875 criminal cases (74%) were instituted, 2,588 people were brought to criminal responsibility, and damage was recovered in the amount of 389.2 million rubles. How will digitalization have an impact on solving this problem?

The development of informatization in forestry provides for the operation of the federal state information system "Information system for remote monitoring of the Federal Forestry Agency", including the Unified state automated information system for accounting for timber and transactions with it, as well as the creation of the following new systems:

- departmental fund of spatial data;
- automated system "Control over the reliability of forest pathological survey reports";
- the situation center of the Federal Forestry Agency;
- unified automated information system.

In our opinion, the "digitalization" of the forestry industry can significantly reduce costs, make all transactions and forest use "transparent", exclude illegal logging, illegal seizure of forest areas, and increase the profitability of the entire industry.¹⁰

The main direction of the development of informatization in forestry should be the creation of a unified automated information system as a unified Internet platform to provide information and analytical support for the activities of economic agents, officials in the field of forestry relations.¹¹

What is required for the successful operation of an automated information system?

Receive, process, store and use information about the state of forests, their quantitative and qualitative characteristics, about their use, protection, protection and reproduction. For this it is necessary: to ensure an increase in the reliability and efficiency of the provision of information for making management decisions; the accuracy of planning measures for the protection, protection and reproduction of forests; the effectiveness of monitoring the implementation of plans and ensuring the assessment of the effectiveness of the implementation of measures; the accuracy and efficiency of providing information to federal agencies and organizations.

The automated information system will ensure the centralization of existing and future information systems for the following main tasks of the Federal Forestry Agency:

- ensure the transparency of the activities of the Federal Forestry Agency and subordinate institutions;
- information and analytical support for decision making;
- planning, device, accounting, use and reproduction of forests;
- ensuring the protection and protection of forests.

At the same time, since the introduction of market relations, the reliability of information on the volume of timber harvesting has decreased, which hindered the development of business.

Therefore, among the primary tasks is the digitalization:

- state forest register;
- current accounting and assessment of forest resources;
- forest plans, plans for reforestation, forest use;
- ecological "capacity" of forests, biodiversity, environmental safety, etc.

In our opinion, "digitalization", informatization of all processes in the forestry industry could seriously raise the efficiency of forestry in general. Despite the adoption of various resolutions, programs on the creation of a unified forestry information system, the allocation of significant financial resources, the digitalization of the forest industry is proceeding weakly.

¹⁰ Zhavoronkova N. G., Vypkhanova G. V. Legal problems and directions of improvement of public administration in the field of forest relations // *Lex russica*. 2017. № 2.

¹¹ Resolution of the Government of the Russian Federation dated 28.01.2015 No. 55 "On the procedure for the operation of the unified state automated information system for timber accounting and transactions with it".

The most significant problems of forestry include: insufficient accuracy in assessing the forest resource potential; weak control over the use of forests; low efficiency of forestry activities; backward mechanisms; growing shortage of personnel.

At present, the State Forest Register is actually the main document on forest users, but it does not contain reliable information on the state of the forest resources of the Russian Federation. The forest register is the base of the information system, but it is not reliable, incomplete, not linked to the state cadastre of real estate, not fully “digitalized”. It is not based on methodological unity with other information systems.

In the forest legislation, the possibility of ecological and recreational use of forests is poorly developed, which may turn out to be more economically profitable than clear cutting of forests within a decade, therefore, at the earliest stage of creation of Internet programs and platforms, it is necessary to actively include indicators of an ecological and social nature in the information system.

In the Criminal Code of the Russian Federation, there are articles providing for criminal liability for illegal felling of forest plantations. Persons who knowingly and for mercenary purposes ignore digitalization and / or introduce false data into the system, for example, about transferring land from one designated purpose to another, should also be subject to criminal liability.

Some conclusions and suggestions

Digitalization of the forestry industry is a long overdue, necessary and logical stage in improving management. The strategic planning documents, laws and regulations adopted in recent years testify to the scale of digitalization programs. Various information systems in the forestry industry are already being used in test mode.

The new edition of the Forestry Code of the Russian Federation speaks of significant changes in the organization of forestry management and the priority of digitalization tasks. The Strategy for the Development of the Forestry Complex of the Russian Federation until 2030, adopted in

February 2021, contains specific positions on the digitalization of the industry.

At the same time, attention should be paid to a number of problems that, in our opinion, are not reflected (or not fully reflected) in strategic planning documents and legislation. It should be emphasized that digitalization itself, without changing forest management priorities, without value social and natural landmarks, without changing the management paradigm, without a normative “ecosystem”, is not able to solve a single set task.¹²

In this case, the digitalization of the industry will in no way serve to increase the efficiency of forest management. Digitalization is just a method, method, form, part of management. The presence of a large or extremely large amount of information about forest, felling, reforestation, movement of commodity flows, “profitability” does not guarantee and reliability of achieving the planned results, if the entire decision-making system is not built on the basis of reliable algorithms and programs.

In the case of a high corruption, bureaucratic, political component affecting the forest management process, digitalization, or other innovative innovations cannot give the desired effect. It is necessary to strive as much as possible to automate decision-making processes (without human participation) in the field of concluding transactions, document flow, permitting and licensing procedures.

The digitalization of the forestry industry has its own, quite limited capabilities and performance criteria. Influencing the change in the technological structure, making the transition from a low level (deforestation and selling timber) to higher levels (manufacturing products), searching for new trade niches and meanings in forest use, should accompany innovative activities in forest use.

The value of forests is not limited to timber. The forest is not only a “resource”, but also space, habitat of flora and fauna, a source of oxygen and an endless variety of space. Digitalization should contribute to a broader understanding of the “benefits” of forests in a spatial-settlement and ecological-economic approach.

¹² Let us recall that the previous edition of the Forest Code, in the opinion of most experts, which led to gigantic damage to forests, contained norms that contradict the interests of the forest industry as much as possible, but meet the interests of individual economic agents.

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V. M. Burla*

DIGITALIZATION AS A FACTOR OF INFLUENCE ON THE DEVELOPMENT OF CONSTITUTIONAL AXIOLOGY

Abstract. The article considers the impact of digitalization on constitutional axiology as a scientific direction. The author examines the influence of the digital environment on constitutional axiology through its subject of study — constitutional values. It is proposed to consider the features of digital influence on two groups of constitutional values: the constitutional values of statehood (first of all, state sovereignty) and the constitutional values of a person, his rights and freedoms. Demonstrating the aspects of the transformation of the legal understanding and legal regulation, the author concludes that the proper protection of constitutional values can be ensured by supplementing the constitutional instruments with the mechanisms of sectoral legislative and international legal regulation.

Keywords: constitutional values, constitutional axiology, digitalization, constitutional human rights and freedoms, state sovereignty.

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Introduction

Digitalization as an objective process of modern reality affects all aspects of human life and society. The result of this influence is the digital transformation of the phenomena of the surrounding reality. To a greater extent, such a transformation affects socio-communicative, economic relations, to a lesser, but increasingly growing, — law, science, the field of ideas, values.

Influencing, first of all, the form, digital transformation gradually transforms the content of phenomena, changing their perception and dictating the need to revise approaches to their scientific

understanding. The gradualness and at the same time high speed of this process contains certain risks: the “digitization” of legal relations for a long time can occur as if naturally and latently, and manifest itself in “sudden” challenges, therefore, legal scholars, examining legal reality, should take digitalization into account as an objective phenomenon and permanent, and refract approaches to the study of law and its current problems, taking into account this factor.

Within the framework of some scientific areas, primarily private law, the phenomenology of digitalization no longer allows us to remain in the usual paradigms. For example, technologies such as blockchain, smart contracts have certainly transformed the classic *lex mercatoria*.¹ Public law, as traditionally more conservative and conditioned by the will of state-power institutions, has for a long time experienced less the impact of digital transformation. Nevertheless, over the past

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¹ For more details, see, for example, M. V. Mazhorina. On a conflict of law and “wrong”, *lex mercatoria* renovation, smart contracts and blockchain arbitration. *Lex russica* (Russian law). 2019. No. 7. P. 93—107.

ten years, “digital” inevitably penetrates into this area of legal reality.

The science of constitutional law of the modern period pays significant attention to various aspects of the impact of the digital environment on the phenomena of constitutional and legal reality. The categories of “digital constitutionalism”,² constitutional “digital rights”³ appear, in interdisciplinary studies it is proposed to develop the “Constitution of the Internet”⁴ and so on.

This article will consider the impact of digitalization on one of the relatively new scientific directions of constitutional and legal science — constitutional axiology, which, as a field of knowledge, integrates the philosophical (world of values) and legal (world of law) parts.

In a broad sense, digitalization can be represented as the expanding use of modern digital technologies in various spheres of human activity, and in the context of law, this process implies not so much modern forms and methods of collecting, storing, processing and transmitting any information in digital format, but rather “technologies of digital regulation of processes life cycle... in the right.”⁵

Within the framework of this article, we will proceed from this understanding of digitalization and digital transformation as its result.

Constitutional axiology as a direction of domestic legal science

Before considering the aspects of digital transformation of objects studied by constitutional axiology, one should outline the boundaries of this area of scientific knowledge and understand the subject of its study.

Defining constitutional axiology as a science, M. S. Permilovsky, characterizes it as a field

that studies the transformation of constitutional norms into a set of constitutional values, the place of constitutional values in the ontological space and the system of law, the relationship of various constitutional values between themselves and other values, as well as economic, environmental, social and other processes in the state.⁶

The author calls constitutional values the subject of studying constitutional axiology.

MP Malko believes that the issue of a clear definition and concretization of the subject of constitutional axiology is the most difficult, since it cannot be reduced to a simple enumeration of legal and philosophical conceptual categories. According to the author, the subject of constitutional axiology can be considered both issues of political, economic and cultural life in general, and the very understanding (interpretation) of the constitution, including the history of its development and constitutionalism itself, as well as legal education and, finally, the legal culture of Russia.⁷

On the other hand, the scientist notes that since constitutional axiology is one of the characteristics of the content of constitutional law and the constitution itself, its subject can be compared with the subject of constitutional law, which includes several groups of social relations, in depending on the spheres of activity and in accordance with the chapters of the constitution.

In general terms, concludes M. P. Malko, the subject of constitutional axiology can be considered the definition and consolidation of the widest range of values of society in the constitution, which, in turn, are the basis for the construction and conduct of state, economic and social policies.

We agree that since the subject of constitutional axiology is constitutional values in a broadly understood sense, the impact of digitalization on

² See Kravets I. A. Digital constitutionalism and the future of the information society (In the context of globalization and integration processes). *Law and State*. 2020. No. 3-4. P. 85—104.

³ See Nevinsky V. V. “Digital rights” of a person: essence, system, meaning. *Constitutional and municipal law*. 2019. No. 10. P. 26—32.

⁴ See Medushevsky A. N. The Constitution of the Internet: Idea, Projects and Prospects. *Social Sciences and Modernity*. 2019. No. 1. P. 71—86.

⁵ Kartskhia A. A. Digital transformation of law. *Monitoring of law enforcement*. 2019. No. 1 (30). P. 25—26.

⁶ Permilovskiy M. S. Right to a favorable environment as a constitutional value: abstract of Ph.D. dis. ... *Cand. legal. sciences*. Kazan, 2014. P. 17.

⁷ Malko M. P. The subject of constitutional axiology. *Bulletin of the Chelyabinsk State University. Series “Law”*. 2010. No. 19 (200). P. 34.

constitutional axiology as a scientific direction is most clearly traced in the context of digital transformation of basic constitutional values. In other words, constitutional axiology is influenced by digital transformation through the subject of its study — constitutional values. In this regard, it is important to define what we mean by constitutional values and what objects we include in this category.

Constitutional values: essence, species diversity, classification features in the context of the impact of digitalization

The most controversial issue in constitutional axiology is the issue of the essential content and doctrinal definition of constitutional values. According to GA Gadzhiev, constitutional axiology is concerned with determining “what are constitutional values, what is their genetic origin.”⁸

The scope of this spectrum is so broad and multifaceted that it cannot be fully disclosed within the framework of this article. Moreover, this is not an urgent task at the moment; rather, it is necessary to determine what we mean by constitutional values in order to demonstrate the influence of digitalization factors on them.

In constitutional axiology, it is proposed to define constitutional values through the categories “ideals”, “goals”, “priorities” and others like that; scientists have different approaches to the choice of a generic concept. Let us dwell on the following approach: constitutional values are “extremely generalized priorities that serve as goals for the development of society and the state, which are filled with specific content in the current legislation.”⁹

The understanding of the Constitution, shared by the majority of authors, is important as a source of constitutional values, directly (explicitly) or indirectly (from the spirit of the Constitution) enshrined in it. It should be noted that constitutional axiology is closely connected not only with the content, but also, in general, with

the essence and interpretation of the Constitution, and therefore, considering the species diversity of constitutional values, one should proceed from their constitutional text, its doctrinal and normative interpretation.

The species diversity of constitutional values is represented by a wide palette. It is proposed to consider values not only as enshrined in Article 2 of the Constitution of the Russian Federation as the highest value of a person, his rights and freedoms, but also, for example, the constitutional value of the state; the constitution itself; serving constitutional norms and rules to the interests of a person and a citizen; consolidation of pluralism of forms of ownership, in which both private and state property, as well as its other forms, have the right to equal existence and use; the consolidation of a democratic regime of power, the basis of which is the rule of the people, that is, the direct exercise of power by the people, and the derivation from it of the bodies exercising legislative and executive power; the establishment of principles and rules for the people’s involvement in the development of draft laws — from identifying the opinion of citizens, public opinion on draft laws to the people’s law-making initiative; the existence of a power sharing system; transparency and publicity of the exercise of state power; elections; use of the law as the main regulator of public relations.¹⁰

The presented list is just one of many options for the catalog of constitutional values, but it allows you to get a general idea of the variety of constitutional values and the openness of their list.

The systematic approach assumes a certain classification of elements. We believe that for the purposes of considering the impact of digitalization on constitutional values, it is advisable to present their entire set within two groups: the values of statehood (conditionally: public values) and the values of a person, his rights and freedoms due to his being placed at the highest level of the value hierarchy by the Constitution itself (conventionally: private values).

⁸ Gadzhiev G. A. *Ontology of law: (a critical study of the legal concept of reality): monograph*. Moscow: Norma; Infra-M, 2013. P. 274.

⁹ Komarova V. V. Filling and species diversity of the legal category “constitutional values” (constitutional and legal aspect). *Successes of modern natural science*. 2015. No. No. 1—8. P. 1385.

¹⁰ Avakyan S. A. Globalization, general constitutional values and national regulation. *Social interests*. 2001. No. 4. P. 44—47.

The first group should include the values of state sovereignty and territorial integrity, the values of a democratic and legal state and others that reflect the essence of statehood and are subject to special constitutional protection in this regard.¹¹ The second is constitutional human rights and freedoms.

Impact of digitalization on the constitutional values of statehood

The scope of this article does not allow us to study the impact of digitalization on all the constitutional values of this block. To demonstrate the main trends of such influence, in our opinion, the most representative is the digital transformation of the constitutional value of state sovereignty.

State sovereignty is a national constitutional value that creates the preconditions for the guarantee and implementation of the entire system of constitutional values, as the primary condition for the independence and self-identification of the state.

The value of sovereignty is primary, since it is the basis for democracy by the people, therefore, for the value of a democratic state: according to the Russian Constitution, the people are both the bearer of sovereignty and the only source of power (part 1 of article 3); the second follows from the first.¹²

At the same time, sovereignty guarantees territorial integrity. Moreover, in the classical understanding, coming from the Westphalian Peace Agreements of 1648 and international documents of the United Nations, state sovereignty is

associated with the territory outlined by the state border.¹³

O. E. Kyrađafin defined the sovereignty of the state as a property of state power independently and independently of the power of other states to exercise its functions on its territory and outside it in international communication.¹⁴

In the modern world, the value of state sovereignty becomes vulnerable to the threats of globalization, one of the tools of which is digitalization, precisely due to the fact that the concept of “territory” in geopolitical meaning in the context of the transparency of the digital environment is devoid of practical significance.

Regarding the influence of globalization processes on national constitutional values (first of all, state sovereignty), Professor V. V. Nevinsky wrote about one of the most powerful modern trends in the universalization of constitutional values, that is, the world”, including “the identity of legal systems”, including the constitutional values formulated in them.¹⁵

There are certainly positive features in this trend: as V. V. Komarova noted, “values created by the efforts of one people and organically included in the life of another people can become a source of its development and progress.”¹⁶

At the same time, the negative effect of globalization is expressed in the erosion of the boundaries of national identity, and the information and telecommunications space, in which the whole world exists today, modifies the classical theory of the state.

Digitalization leads to a kind of frontolysis of the category of “state sovereignty”, transforming

¹¹ In the scientific literature and the positions of the Constitutional Court of the Russian Federation, along with the concept of “constitutional values”, there are also the concepts of “constitutionally protected values”, “constitutionally recognized values”, “constitutionally protected values”, “constitutionally significant values”. All of these categories emphasize the special nature of the objects that constitute constitutional values. For more details see: Rudt Yu. A. Balance of constitutional values in the doctrine of constitutional law and the practice of constitutional justice bodies of the Russian Federation: dis. ... Cand. legal. sciences. Omsk, 2019. P. 20—22.

¹² N. B. Pastukhova notes that the constitutionally enshrined principle of sovereignty positions the Russian Federation as a state of democracy, that is, a democratic state. See Pastukhova NB Main characteristics and definition of state sovereignty: modern view. *Sociology of power*. 2006. No. 3. P. 161.

¹³ According to Part 1 of Article 4 of the Constitution of the Russian Federation, Part 1 of Article 4, the sovereignty of the Russian Federation extends to its entire territory.

¹⁴ Kozlova E. I., Kutafin O. E. *Constitutional law of Russia*. Moscow, 1995. P. 120.

¹⁵ See Nevinsky V. V. The essence and universalization of constitutional values in modern society. *Lex russica*. 2018. No. 11 (144). P. 106—121.

¹⁶ Komarova V. V. Internationalization of institutions and values of democracy // *Internationalization of constitutional law: modern trends: monograph* / ed. N. V. Varlamova and T. A. Vasilyeva. Moscow: IGP RAS, 2017. P. 168.

its understanding in the context of cyberspace. As a result, modern legal science is enriched with new semantic categories: “cyberspace sovereignty of the state”, “state sovereignty on the Internet”, “digital sovereignty of the state”, “informational sovereignty of the state” and others. Obviously, the state border does not act as a universally valid guarantee of the country’s sovereignty, since the territoriality of sovereignty in cyberspace is devoid of foundation.

To ensure the completeness of the constitutional and legal protection of the value of sovereignty, it is proposed to supplement the Constitution of the Russian Federation with the category of “information space”, understood as an area other than physical and geographical territory, to which state sovereignty extends. MA Fedotov writes: “in order for the state to be able to develop legal norms capable of working on the Web, it must first find itself in cyberspace and determine where the boundaries of its sovereignty and jurisdiction lie here.”¹⁷

This is a practically insoluble problem: by adding the concept of “information space” or “digital (information) sovereignty of the state” to the Constitution, the problem of vulnerability of state sovereignty on the Internet will not be resolved, since the information and telecommunication world is by nature insensitive to borders and restrictions, and the national constitutional the right has no legal force in relation to him.

There are also proposals for autonomization in the global cyberspace of the national domain zone (Runet), which will ensure information security and state sovereignty on the Internet. It seems that such proposals are of a political nature and deliberately do not take into account the modern demand for the global openness of the information space. In our opinion, they cannot be considered promising.

We believe that the most effective tools for protecting state sovereignty in cyberspace can be international legal instruments.

At a meeting of the Security Council at the end of March 2021, Russian President Vladimir Putin indicated that the digital space today contains many potential threats to the sovereignty and national interests of individual countries, stressing that Russia stands for universal international agreements on the prevention of conflicts in the cyber sphere.¹⁸

As a result of the meeting, the draft of the new “Fundamentals of the State Policy of the Russian Federation in the Field of International Information Security” was approved, aimed primarily at ensuring the digital sovereignty of independent states and preventing interstate conflicts using information technologies.¹⁹

It seems that the movement towards conceptual legal regulation at the level of national documents is an effective legal instrument for protecting the constitutional values of statehood, first of all, state sovereignty, provided that such regulation is not limited by the framework of domestic law.

An important role belongs to the development of international legal instruments, in particular, the resolutions of the UN General Assembly and international conventions aimed at strengthening the value of the sovereignty of all states in the information and legal space.

The addition of the constitutional-legal basis for the protection of legal values with international legal instruments of protection fully corresponds to the trend of universalization of constitutional values, which was described above. The first step in this direction was the draft resolution of the UN General Assembly on global cybersecurity, according to which “state sovereignty and international norms and principles arising from sovereignty apply to the implementation by states of activities related to information and communication technologies, and to their jurisdiction over facilities infrastructure of information and communication technologies within their territory”.²⁰

Further international legal regulation of this area will contribute to the preservation of the

¹⁷ Fedotov M. A. Constitutional responses to the challenges of cyberspace. *Lex russica*. 2016. No. 3. P. 168.

¹⁸ Putin: there are many threats to global security and sovereignty in cyberspace. URL: <https://tass.ru/politika/11006783>.

¹⁹ See the Statement of the Secretary of the Security Council Nikolai Patrushev for the media following the meeting of the Security Council. URL: <http://www.kremlin.ru/supplement/5628>.

²⁰ See Achievements in the field of information and telecommunications in the context of international security. URL: <http://undocs.org/ru/A/C.1/73/L.27>.

universal constitutional value of state sovereignty for all countries, which constitutes the core of the entire system of constitutional values of statehood.

The impact of digitalization on the constitutional values of a person, his rights and freedoms²¹

The constitutional recognition of a person, his rights and freedoms as the highest value is the central idea of the national constitutional axiology and the object of special constitutional protection. The challenges of digitalization in relation to this institution at the present stage are sometimes perceived as elements of “coercion and oppression”.²²

As with the constitutional values of statehood, for the values of the private plan — the values of a person, his rights and freedoms — digitalization creates threats to sovereignty in the meaning of individual autonomy of a person, his inner freedom.

This effect of digitalization is especially clearly perceived by human rights related to privacy (Article 23 of the Constitution of the Russian Federation) and the protection of information about it (Article 24 of the Constitution of the Russian Federation). These rights are most closely associated with personal data that can be stored and distributed in the information and telecommunications network.

The right to privacy implies that a person has the ability to control information about himself, to prevent the disclosure of personal, intimate information. As follows from the position of the Constitutional Court of the Russian Federation, private life is that area of life that belongs to an individual, concerns only him and is not subject to control by society and the state if it is not illegal.²³

In the context of constitutional axiology, the inviolability of private life is an absolute value,

and as a constitutional right it is not subject to limitation even in connection with the introduction of a state of emergency (Article 56 of the Constitution of the Russian Federation). The absolute nature of this value is emphasized by the guarantee of the prohibition of the collection, storage, use and dissemination of information about the private life of a person without his consent (part 1 of Article 24 of the Constitution of the Russian Federation).

Internationally, it is recognized that illegal or arbitrary collection of personal data violates the right to privacy, as noted in the UN General Assembly Resolution “The Right to Privacy in the Digital Age”, which affirmed that no one should be subjected to arbitrary or illegal interference private and family life, which is based on article 12 of the Universal Declaration of Human Rights and article 17 of the International Covenant on Civil and Political Rights.²⁴

The digital environment neutralizes the absolute nature of privacy with the objectivity of its existence and the fact that, using information and telecommunication means of communication and data exchange, a person, on the one hand, independently and voluntarily places personal data in the global information space, opening his private life to various threats.

On the other hand, we are talking not only about the use of social networks and electronic platforms for communication: a separate type of digital threat can be represented by the so-called “big data”, which is essentially non-personalized information, since its form does not imply attribution to a specific individual. Nevertheless, digital law in the context of big data distinguishes a group of consumer data from the use of services on the Internet, including social networks,

²¹ Baranov P. P. Methodological problems of legal consciousness in the era of legal digitalization. Humanitarian of the South of Russia. 2020. Vol. 9. No. 4. P. 28.

²² Determination of the Constitutional Court of the Russian Federation of June 9, 2005 No. 248-O “On the refusal to accept for consideration the complaint of citizens Zakharkin Valery Alekseevich and Zakharkina Irina Nikolaevna on violation of their constitutional rights by paragraph” b “of part three of Article 125 and part three of Article 127 of the Criminal Executive Code of the Russian Federation”. URL: <https://www.garant.ru/products/ipo/prime/doc/1254478/>.

²³ Resolution adopted by the General Assembly on 18 December 2013 [on the report of the Third Committee (A/68/456/Add.2)] 68/167. The Right to Privacy in the Digital Age. URL: <https://undocs.org/pdf?Symbol=ru/A/RES/68/167>.

²⁴ Decree of the President of the Russian Federation of May 9, 2017 No. 203 “On the Strategy for the Development of the Information Society in the Russian Federation for 2017-2030”. URL: http://www.consultant.ru/document/cons_doc_LAW_216363/.

geolocation and medical data, which, of course, is of a private, personalized nature.

The mention of big data (“big data volumes”) first appeared in the Strategy for the Development of the Information Society in the Russian Federation for 2017—2030.²⁵

Subsequent attempts to adopt a special law in this area or to reform legislation on information, information technology and information protection did not lead to a result, but from March 1, 2021, amendments to the Federal Law of the Russian Federation of July 27, 2006 No. 152-FZ “On personal data”,²⁶ aimed at strengthening the protection of citizens’ rights in the turnover of “big data”.

The category “big data” itself does not appear in the Law, but a new concept “personal data permitted by the subject of personal data for dissemination” appears and a procedure is provided for a person to give consent not only to the use of personal data, but also to their depersonalization. The changes entered into force on March 1, 2021, so today it seems premature to talk about their effectiveness in protecting privacy and personal data.

At the same time, at the present stage, it is not possible to argue that legal mechanisms effectively protect the value of the sovereignty of the individual, since a person (person) in the digital environment is still perceived more as a provider of information or as an object (information) than as a subject capable of to fully control the fate of your personal data.

Perceiving a person as the highest value, it should be recognized that his constitutional rights and freedoms, including the right to privacy, have the same weight in the digital environment as in society as a whole. In this regard, in our opinion, the concept of digital human rights should be developed, which, according to V. D. Zorkin, should be understood as universal rights “in relation to

the needs of a person and a citizen in a society based on information.”²⁷

This means nothing more than the fact that the value of a person, his rights and freedoms in the digital environment cannot be viewed conceptually differently than in the constitutional axiology: a person is a goal, and the digital world is a means. In the world of “numbers” a person does not lose the rights guaranteed by his constitutional status.

We agree with V. V. Nevinsky that “the question of harmonizing the interests of the state and the individual in the information and telecommunications environment, the effectiveness of the implementation of the principle of the unity of digital rights and digital human responsibilities, taking into account the implementation of other constitutional rights and obligations, remains relevant.”²⁸

Note also that ensuring the constitutional security of an individual in the digital environment (primarily in the information and telecommunications network) cannot be ensured outside of international legal regulation.

Conclusion

Domestic constitutional axiology, which considers the Constitution and its norms in the value dimension, as a field of legal science, practically does not come into contact with digital law either in terms of the subject of research, or in terms of methodology, which is largely borrowed from the philosophy of law. But, like any scientific direction, constitutional axiology does not exist outside the objective conditions of society, and digitalization is just such a condition.

The impact of digitalization on constitutional axiology as a scientific direction occurs through the impact on the subject it studies — constitutional values, which are understood as social priorities contained in the Constitution and provided by its special protection. Digitalization affects

²⁵ Decree of the President of the Russian Federation of May 9, 2017 No. 203 “On the Strategy for the Development of the Information Society in the Russian Federation for 2017-2030”. URL: http://www.consultant.ru/document/cons_doc_LAW_216363/.

²⁶ Zorkin V. D. Law in the digital world // URL: <https://rg.ru/2018/05/29/zorkin-zadacha-gosudarstva-priznavat-i-zashchishchat-cifrovye-prava-grazhdan.html>.

²⁷ Nevinsky V. V. Op. cit. P. 32.

²⁸ Nevinsky V. V. Op. cit.

both that part of these priorities, which is associated with the state and society, and that which relates directly to a person who is the highest value.

Despite the difference, and sometimes the mutual contradiction of the constitutional values of statehood and the constitutional values of a person, the impact of digitalization on both blocks of values, firstly, objectively, and secondly, creates threats to sovereignty in the broad sense of the word as the independence of the state and as the autonomy of the individual.

This fact transforms the approaches of constitutional axiology to the mechanisms of guarantee and protection of constitutional values, which cannot be limited only by the framework of constitutional law; they, firstly, must be ensured by the norms of internal sectoral legislation (within the framework of conceptual policy documents, special legislative and by-laws in the field of security, information, personal data), and, secondly, due to the global nature of the digital environment, instruments of an international legal nature.

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L. R. Vardanyan*

LEGAL ASPECTS OF REGULATION OF SAMPLING (DIGITAL SAMPLING) IN THE USA AND GERMANY

Abstract. This article draws attention to the rapid introduction of sampling into musical culture in a developed digital environment. It is concluded that, since the sampling results are not an independent object of legal regulation and protection, the interests of musicians who turn to this instrument are not fully taken into account. The author considers it necessary to develop fairer, rational and reasonable criteria for establishing a balance between the protection of intellectual rights of copyright holders and the protection of creative freedom in relation to musical works.

Keywords: intellectual rights, digital environment, sampling, exclusive rights market, protection of rights, digital economy.

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The development of the digital economy requires a change in legislation in accordance with the new legal relations that arise between special subjects and with regard to non-traditional objects of legal regulation.¹

Currently, the study of regulatory regulation of digital relations is a strategic task that is an element of state policy aimed at ensuring the security

of the entire modern world,² where the global music industry is experiencing a real boom.

Each year, new musical genres emerge, new music performers emerge who contribute to the development of the music industry. With the rise of the Internet and digital music production, it has become unnecessary to be a professional composer or producer in order to create music and bring it to listeners. Various computer programs, mixers, installations, as well as mobile applications allow you to learn the basics of creating music for almost any interested person. Sampling is one of the clearest examples of this development in the music industry.

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¹ See: Egorova M. A. Features of the digital economy normative regulation and the problems of antimonopoly regulation in digital markets as a means of protecting national interests. Lawyer. 2018. No. 11. P. 7—10.

² See: Egorova M. A., Kozhevina O. V. The place of cryptocurrency in the system of objects of civil rights. Actual problems of Russian law. 2020. No. 1. P. 81—91.

The term sampling was coined in the late 1970s by Kim Ryrie and Peter Vogel, computer designers, to describe the way their Fairlight CMI synthesizer works, one of a number of major musical technologies that influenced the XX music industry.³

Sampling (English digital sampling) means the creation of musical recordings by borrowing digitized sound fragments and their selection.⁴ Such fragments (English samples) can be borrowed from several pieces of music at once⁵ and include both the music track of an individual musical instrument and a full-fledged fragment of a piece of music.⁶

In addition, fragments can be cut from musicians' concert performances. Often, as a result of sampling, musical works can change beyond recognition (tonality of the work, rhythm, etc.),⁷ which does not allow us to speak of a violation of copyright or related rights, but justifies the idea of creating a new work.

Sampling is inherently different from plagiarism, and cannot be equated with it, as it sometimes happens in law enforcement practice. From the point of view of musical technology, plagiarism provides for a minimum level of creative element and, in fact, is a direct borrowing of a musical motive (a successive series of notes) from the original work.

When creating a musical work, no technical interactions with the original are made: the motive can be reproduced by any other musical

instruments, only a sequential row of notes from the original is preserved. Sampling provides for a higher level of creative activity, within which a musician, using a special device, records a fragment of the original work, and then adds it to a new work, without leaving it in its original form, changing the context, accompaniment, rhythm, looping a piece of music, adding to it effects and otherwise rethinking it. Sampling is not limited to the technical "removal" of a piece of a piece of music, it involves creative processing, allowing you to see the musician's work on a piece.

Most researchers associate the emergence and flourishing of sampling with the emergence of disk-jockey (DJ) culture in the United States and the emergence of the hIP-hop music genre. Since the beginning of the 70s of the XX century, thanks to the development of musical technology, in particular, with the advent of a DJ mixer, it became possible to mix two compositions played from gramophone records.⁸

In fact, the main way for a DJ to create a piece of music was to use the records of other musicians through creative processing. It was during these years that hIP-hop music began to develop on the east coast of the United States in the Bronx area of New York.⁹

For the sound accompaniment of the recitative and the rhythmic framing of this accompaniment, the performers (they were called MC, MC) hired DJs who, through various technical methods,¹⁰ used gramophone records of other performers.

³ Milner G. *Perfecting Sound Forever: The Story of Recorded Music*. Granta Publications. 2011.

⁴ See: Demytyeva E. S. Problems of legal regulation of the digital form of a work. IS. Copyright and related rights. 2016. No. 7. P. 53—60; No. 8. P. 35—44.

⁵ See: Lutkova O. The problem of protect ability of works with an insignificant level of creativity and repeated works in the copyright of foreign states and the Russian Federation. IP. Copyright and related rights. 2016. No. 8. P. 5—16; No. 9. P. 5—16.

⁶ Demers J. Sampling the 1970s in HIP-Hop, *Popular Music*. 2003. № 41.

⁷ See: Rabizov A. Features of the regulation of cross-border relations in the field of copyright and related rights to musical works. *Sampling. Bulletin of the Kutafin Moscow State Law University (MSAL)*. 2016. No. 12.

⁸ Brewster B., Broughton F. *History of DJs; Ultra Culture*, 2007.

⁹ Self H. *Digital Sampling: A Cultural Perspective*, 9 *UCLA Ent. L. Rev.* 2002. P. 347.

¹⁰ E.g. scratch (from the English scratch - to scratch) — a sound effect obtained by manually pulling an audio track (back and forth, or back or forward) recorded on a vinyl record or magnetic tape, while playing on a turntable.

The concept was inspired by the pioneers of hIP-hop music Kool Herc and DJ Grandmaster Flash.¹¹

A turning point for the musical accompaniment of hIP-hop performers was the creation and distribution among DJs of a sampler (English Sampler), which was a musical instrument that, unlike a synthesizer, made it possible to use not just a generator of sound waves (sounds of a guitar, grand piano, etc. .), and the sample recorded in memory is the digitized sound of an acoustic or electronic musical instrument.

DJs, with the help of a sampler, began to use gramophone records not only for mixing two pieces of music, but also for isolating a separate fragment they liked from a piece of music and using it in their own way.

The rapid spread of hIP-hop music and the growing popularity of this genre fueled DJs in their creative quest, and by the end of the 70s of the 20th century, most hIP-hop DJs had mastered the sampler.¹²

DJs' creative use of diverse and multi-genre pieces of music has further spread hIP-hop music throughout the United States and made its way to the West Coast of the United States, where the sampler has become akin to a musical or artistic instrument for hIP-hop musicians. RZA, one of the members of the cult hIP-hop group Wu Tang Clan, said: "The sampler is a separate musical instrument for me. I've always treated him that way. The sampler is the instrument I play".¹³

The rapid development of hIP-hop music, its smooth transition from the status of subcultural music to a real phenomenon of mass culture, has also spread sampling in the music industry. So, if in 1989 only 8 out of 100 albums on the Billboard 100 list contained some form of sampling, then by

1999 every third album from the top 100 list used this method. With the proliferation of hIP-hop music in popular culture, large music corporations began to turn their attention to this genre, which turned creativity into a potential type of entrepreneurial activity. Since hIP-hop music attracted a huge number of fans, hIP-hop artists converted their popularity into monetary equivalent, while the leaders of the hIP-hop movement once again emphasized the inseparability of sampling from hIP-hop and the creative component of this mechanism.

At the same time, the copyright holders of certain musical fragments did not share this point of view and considered the sampler as a tool of "theft" that threatened the commercial component of their intellectual rights. It is significant that the majority of hIP-hop artists were aware of and accepted this attitude towards the sampler, but at the same time emphasized that they were representatives of the counterculture, and their activities were comparable to the exploits of Robin Hood.¹⁴

However, the music industry has responded in its own way to the growing popularity of music robbers and literally bombarded them with lawsuits for compensation for lost profits for the unlicensed use of exclusive rights to musical works. Later, this greatly affected the use of sampling in mass music (not only in hIP-hop), and at present most music producers do not use fragments of a plurality of musical works for sampling, but limit themselves to only one.

The modern assessment of the legal regulation of sampling in music is reflected in the legislation on intellectual rights of most countries. Due to the fact that the music industry in the United States is a truly large-scale commercial industry,

¹¹ Davey D. The History of Hip Hop. URL: <http://www.daveyd.com/raptitle.html>.

¹² Evans T. M. 'Sampling, Looping, and Mashing Oh My!: How Hip Hop Music is Scratching More Than the Surface of Copyright Law', *Fordham Intellectual Property, Media and Entertainment Law Journal*. 2011. Vol. 21, № 4.

¹³ Smith A. L. Other People's Property: Hip Hop's Inherent Clashes with Property Laws and Its Ascendance as Global Counter Culture, 7 *VA. Sports & Ent. L.J.* 59, 62.

¹⁴ Kembrew McLeod, How Copyright Law Changed Hip Hop: An Interview with Public Enemy's Chuck D and Hank Shocklee, *Stay Free!*. URL: <http://www.alternet.org/module/printversion/18830>.

the regulation of intellectual rights in this country has the most developed system. The main source of intellectual property protection for musical works in the United States today is the Copyright Act 1976.

This regulation protects works of authorship presented on tangible media. As in most acts adopted in the 20th century, this Act adheres to the traditional concept, according to which any borrowing is contrary to the creative principle and novelty, and independent creativity is necessary to ensure the protection of the work.¹⁵

However, not all legal scholars share this point of view, finding this concept burdensome for musicians who collaborate or use borrowings in the creative process.

Thus, there is a clash of interests between copyright holders who want to protect their works from misuse or receive decent remuneration for this, and artists who, from their point of view, creatively rethink certain musical works. Abuse is possible on both sides and maintaining a balance of interests is a very difficult task.

From the point of view of the Copyright Act, a musician who resorts to sampling must obtain permission to use intellectual property rights for both the musical work and the performance, which most often entails a significant investment. The so-called “copyright clearance” provides for interaction with the composer (or producer), who owns the rights to the musical composition (primarily copyright), and with companies that own the rights to perform (related rights). Thus, currently, US law adheres to the traditional concept of sampling.

This approach is also evident in US case law. Thus, the federal court in the case of *Grand Upright Music Ltd v. Warner Bros. Records*¹⁶

identified sampling as an illegal way of borrowing, which became the *modus operandi* for the courts later on. And even in 2005, in the *Bridgeport Music, Inc. v. Dimension Films*¹⁷ the court ruled that any sampling is inherently an infringement of intellectual rights, indicating that the musician either receives permission to use a piece of a piece of music, or refuses to sample (the so-called bright line rule).

However, the question still remains open to music producers, music companies and lawyers. The critical problem that needs to be addressed in this case is the problem of defining criteria that allow us to evaluate the creative component of borrowing.

The absence of such criteria does not allow the legislator to in any way switch to the possible protection of the interests of musicians who use sampling. Moreover, it allows copyright holders to dictate their price for the “cleansing” of rights, which in turn negates the commercial success of the new work for the artist.

Another controversial aspect of sampling regulation in the United States is the definition of the approach to intellectual property rights. The property-based rule uses the attitude to the intellectual property object as property, by analogy with property rights.

That is, an absolute right is exercised in relation to the object. This approach is followed by the current US legislation, as well as the courts. An alternative to it is the approach from the point of view of liability (liability-based rule), which, in contrast to the property-based approach based on the concept “I can stop any action with respect to the object of law without justification,” uses the concept “you can use until then while you pay for it”.¹⁸

¹⁵ Olufunmilayo B. Arewa, *From J. C. Bach to Hip Hop*, 84 N.C. L. Rev. 2006. P. 547.

¹⁶ *Grand Upright Music Ltd v. Warner Bros. Records*. 1991.

¹⁷ *Bridgeport Music v. Dimension Films*, 410 F.3d 792, 801. 6th Cir. 2005.

¹⁸ William Fisher III, *Geistiges Eigentum — ein ausufernder Rechtsbereich: Die Geschichte des Ideenschutzes in den Vereinigten Staaten* [The Growth of Intellectual Property: A History of the Ownership of Ideas in the United States], In *Eigentum Im Internationalen Vergleich* 16 (1999).

The second approach also provides for the de minimis doctrine, which emphasizes “borrowing, which is so trivial and insignificant that it cannot entail responsibility”.¹⁹

This doctrine is more often used by courts when considering cases involving objects of visual art (for example, sculpture).

The only method of borrowing, including a musical work, recorded in US law (In particular, in the Copyright Act), is the fair use doctrine, which allows a person, without the consent of the copyright holder, to use the work for certain purposes and subject to certain conditions ... Under the Copyright Act, fair use of protected works does not infringe copyright, including reproducing works for criticism, commenting, news coverage, teaching (including reproduction for classroom use), teaching or research.

For example, to determine fair use, the following factors need to be taken into account:

- 1) the purpose and nature of the use, including whether such use is commercial in nature or is for non-commercial educational purposes;
- 2) the nature of the work protected by copyright;
- 3) the size and materiality of the part used in relation to the entire work protected by copyright; and
- 4) the impact of use on the potential market or value of the copyrighted work.

The application of the fair use doctrine to sampling is not so obvious, which leaves its definition at the mercy of the judges. However, a large number of court decisions using the fair use doctrine do not allow to accurately define these conditions and goals, and therefore this doctrine is considered by legal scholars, judges and legal practitioners as the most problematic institution of intellectual rights, especially with regard to sampling issues.²⁰

Nevertheless, the pro-copyright approach of the legislator and the courts to sampling in the

United States is constantly being questioned and becomes the subject of fierce discussions, including in the US Congress. The main obstacle to even a minor departure from negative legal regulation regarding sampling is aggressive lobbying on the part of large music companies, which do not benefit from any concessions in protecting the rights to perform musical works, the most important component for sampling. Composers (producers) of musical works are often more friendly to using their works for sampling.

Recently, a softening of the attitude towards sampling has been noted in case law, which departs from the categorical formulation of the bright line rule and uses the de minimis doctrine. A number of court decisions adopted in recent years have given rise to new criteria for determining permissible borrowing when creating a musical work.²¹

Thus, the categorical concept of the unacceptability of borrowing through sampling, established in the United States, begins to respond to the challenges of the time and take into account the interests of the entire musical community.

In Europe, the development of intellectual law lags slightly behind the achievements of American law. Germany is a prime example of this. In Germany, the legal regulation of intellectual rights is going through new stages of development, and the main legislative source for regulating the protection of copyright and related rights is the Law on Copyright and Related Rights of 1965. In this act, despite the many changes introduced, a negative attitude towards sampling issues²² remains, and, as in the American system, sampling according to general regulation is considered as an illegal borrowing of the result of someone else’s intellectual activity.

In Germany, sampling is seen as a means of obtaining a derivative work, for which it is

¹⁹ Marshall a. Leaffer, *Understanding copyright law* 487 (5th ed. 2010).

²⁰ *Dellar v. Samuel Goldwyn, Inc.*, 104 F.2d 661, 662 (2d Cir. 1939).

²¹ *Tud America v. WB Music* (2014); *VMG Salsoul, LLC, v. Madonna Louise Ciccone* (2016).

²² Gesetz über Urheberrecht und verwandte Schutzrechte vom 9. September 1965, BGBl I. S. 1273.

permissible to borrow the original work only as inspiration or motivation (German: Angerung). And the use of a fragment of a musical work, even if this fragment as part of a derivative work has completely different properties (rhythm, tonality, context) is illegal.

However, many aspects that did not find their consolidation in legislative acts have become subjects of study for the judiciary in Germany. The previously mentioned *de minimis* doctrine, considered in 2012 by the Federal Supreme Court of Germany, as well as the concept of free use (German *freie Benutzung*) were initially rejected by the judges as inconsistent with the 1965 Act.²³

According to experts, this approach of the highest court threatened the development of the music industry, especially for hIP-hop and electronic music²⁴.

Nevertheless, as in the case of the USA, it was the judiciary who, in the absence of legislative changes, was the first to respond to the challenges of the time and in one way or another took into account the inevitability of the use of sampling with the development of the music industry. In the case of the German hIP-hop artist Bushido, the Federal Supreme Court revised the previously used categorical approach to sampling and allowed the use of fragments of musical works if the fragment does not reach the minimum threshold associated with the protection of intellectual property,²⁵ which in essence is a direct appeal to the doctrine *de minimis*.

In this case, the court for the first time looked at sampling from a different point of view, noting that the awareness and defense of their economic rights by the copyright holders of musical works cannot be the basis for creating an unconditional monopoly over intellectual rights.

Even more remarkable was the decision of the German Federal Constitutional Court in the *Metall auf Metall*²⁶ case, in which the judges drew attention to the nature of sampling and defined it as one of the forms of art, in the case when the use of a fragment of a musical work does not have a significant negative economic impact on the copyright holder. It is in this case that the interests of the creative freedom of the musician using the sampling prevail over the intellectual rights of the copyright holder.

At present, this case is pending before the Court of Justice of the European Union,²⁷ and everyone is awaiting with interest the decision of the judges on this complex issue, and the most interesting is not the operative part of the decision, namely the reasoning and criteria that the Court will apply when deciding the case.

However, it is important to note that for the German legal order, both of these cases are significant milestones in the legal regulation of sampling, as they reflect the transition of higher courts to a softer, more balancing representation of sampling.

Thus, Germany, like the United States, and to some extent even earlier, moved away from a categorical approach to sampling, recognizing the

²³ BGH Urt. v. 13.12.2012 (I ZR 182/11) — Eingriff in das Tonträgerherstellerrecht durch "Sampling": Metall auf Metall II, Gewerblicher Rechtsschutz und Urheberrecht, Issue No. 6/2013: p. 614—618.

²⁴ Marc D. Mimler: 'Metall auf Metall' — the German General Constitutional Court discusses the permissibility of sampling music tracks, *Queen Mary Journal of Intellectual Property*, Issue No. 1/2017: p. 119—122.

²⁵ BGH Urt. v. 16.04.2015 (I ZR 225/12) — Goldrapper, Gewerblicher Rechtsschutz und Urheberrecht, Issue No. 12/2015: 1189—1198.

²⁶ BVerfG Urt. v. 31.05.2016 (1 BvR 1585/13) — Zulässige Verwendung von Samples ohne Zustimmung des Tonträgerherstellers — Metall auf Metall, Gewerblicher Rechtsschutz und Urheberrecht, Issue No. 7/2016: p. 690—696.

²⁷ InfoCuria — Case-law of the Court of Justice. Case N C-676/17 <http://curia.europa.eu/juris/documents.jsf?oqp=&for=&mat=or&lgrec=en&jge=&td=%3BALL&jur=C%2CT%2CF&num=C-476%252F17&page=1&dates=&pcs=Oor&lg=&pro=&nat=or&cit=none%252CC%252CCJ%252CR%252C2008E%252C%252C%252C%252C%252C%252Ctrue%252Cfalse%252Cfalse&language=en&avg=&cid=6263994>.

presence of a creative component in this method of creating musical works.

Summing up, it should be noted that at present in the main legal order of the Anglo-Saxon and continental systems, despite the positive changes, the interests of musicians who turn to sampling are not fully taken into account.

A fairer, more rational and reasonable criterion is required to strike a balance between protecting the intellectual rights of copyright holders and protecting creative freedom in musical works, including in the digital environment. It seems that the result of sampling should become an independent object of legal regulation and protection.

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REVIEW OF PUBLICATIONS (MONOGRAPHS, COMMENTARIES, TEXTBOOKS, MANUALS) DEVOTED TO THE DEVELOPMENT OF DIGITAL LAW

Cryptocurrency as a means of payment: private law and tax aspects: monograph / ed. by Dr. Sci. (Law), Professor M. A. Egorova. Moscow: Prospect, 2021. 352 p.

On November 26, 2021, the presentation of the monograph “Cryptocurrency as a means of payment: private law and tax aspects” edited by Doctor of Law, Professor M. A. Egorova, took place at the Kutafin Moscow State Law University (MSAL).

The monograph prepared as part of a study carried out with the financial support of the Russian Foundation for Basic Research (RFBR) within the framework of the scientific project № 18-29-16056 “Cryptocurrency as a means of payment: private law and tax aspects”.

The monograph examines the key aspects of private law and public law regulation of the issuance, storage, exchange, purchase and sale of cryptocurrency; presents the features of legal regulation of cryptocurrency in different jurisdictions; defines the content of the mechanism of its legal regulation; identifies the features of legal, economic and technical content of cryptocurrency mining; analyzes the world experience of legal regulation of digital products based on blockchain technology.

Law and society in the era of socio-economic transformations of the XXI century: the experience of Russia, the EU, the United States and China: a collective monograph for the 90th anniversary of Kutafin University (MSAL) / ed. by V. V. Blazheev, M. A. Egorova. Moscow: Prospect, 2021. 608 p.

On November 30, 2021, the presentation of the collective monograph “Law and Society in the era of socio-economic transformations of the XXI century: the experience of Russia, the EU, the USA and China”, dedicated to the 90th anniversary of the University, was held at the KutafinMoscow State Law University (MSAL).

The monograph is devoted to the study of the role of law in the system of social norms of modern society. The authors of the monograph are leading scholars of the Kutafin University: First Vice-Rector Elena Gracheva, Vice-Rector for Science Vladimir Sinyukov, Head of the Department of Integration and European Law Sergey Kashkin, Head of the Department of Sports Law Denis Rogachev, Head of the Department of Forensic Examinations Elena Rossinkaya, Head of the Department of Philosophy and Sociology Oleg Rybakov, Head of the Department of Constitutional and Municipal Law Valentina Komarova and other scientists, as well as representatives of foreign law schools in Italy, Greece, France, China, the USA, etc.

Problems of creating a digital ecosystem: legal and economic aspects: monograph / Lomonosov Moscow State University, Kutafin University (Moscow State Law Academy), Moscow. branch of the Association of Lawyers of Russia, International Union of Lawyers and Economists (France); E. N. Abramova, A. P. Alekseenko, S. N. Belova [and others]; ed. by V. A. Vaypan, M. A. Egorova. Moscow: Yustitsinform, 2021. 276 p.

The monograph based on the results of the international scientific and practical conference “Problems of creating a digital ecosystem: legal and economic aspects”, held by the Moscow Branch of the Association of Lawyers of Russia, the Department of International Cooperation of the KutafinMoscow State Law University (MSAL) and the Department of Business Law of Lomonosov Moscow State University (MSU).

The monograph focuses on current issues of legal regulation of the digital ecosystem at the present stage of the development of society, including its institutionalization and legal configuration, as well as business ecosystems, digitalization of competitive relations and financial management, antimonopoly regulation of digital market infrastructure, etc.

Transformation of models of legal regulation of objects of innovative infrastructure in modern law: Russian and foreign experience: collective monograph for the 90th anniversary of Kutafin University / ed. by Professor V. V. Blazheev, Professor M. A. Egorova. Moscow: Prospect, 2021. 592 p.

The monograph is devoted to the transformation of models of legal regulation of innovation infrastructure facilities in Russia and foreign jurisdictions, legal regulation of innovation development infrastructure facilities and vectors of legal regulation of digital technologies in the context of the development of innovation infrastructure in Russia and abroad. The authors of the monograph are more than 50 authors, including leading scholars of the Kutafin Moscow State Law University (MSAL) and other Russian and foreign universities (Italy, Switzerland, China, etc.).

Digital law in banking: comparative legal aspect: monograph / L. G. Efimova, O. P. Kazachenok, V. M. Kamalyan and others; ed. by doctor of Legal Sciences, Professor L. G. Efimova. Moscow: Prospekt, 2021. 416 p.

The monograph, edited by Doctor of Law, Professor, Head of the Department of Banking Law of the Kutafin Moscow State Law University (MSAL) L. G. Efimova, examines the main theoretical and practical issues facing the legal community in the context of a new technical revolution: features of the legal regulation of digital technologies in foreign jurisdictions (Switzerland, Great Britain, Germany, Italy, France, Japan, the USA), features of blockchain technology as a new way of certifying civil rights, the concept and legal nature of a smart contract, theoretical and legal issues of the introduction of information technologies in banking, etc.

The monograph contains proposals for changing the doctrine of private law in terms of such new legal phenomena as digital rights, digital property, cryptocurrency, tokens, legal relations on the blockchain platform, an electronic contract, a smart contract, etc. In addition, the most interesting issues of digitalization of banking were investigated, such as inter-bank settlements using blockchain technology, settlements by letter of credit, security transactions using blockchain technology, crowdfunding, liability, etc. Legislation is given as of June 2020. The monograph is aimed at bank officers, researchers, graduates and law students, as well as those interested in digital law.

Actual problems of blockchain technology in financial law: a textbook for a master's degree / ed. by E. Yu. Gracheva, L. L. Arzumanova. Moscow: Norm: INFRA-M, 2021. 96 p.

The textbook provides comprehensive and authoritative coverage of the current issues of regulation of blockchain technology in the field of financial law, in particular: genesis of the development of blockchain, the emergence and transformation of digital currency, the experience of foreign countries in terms of regulation or refusal to regulate digital currencies. Special attention is paid to the financial and legal regulation of crowdfunding and its place in the system of the national financial market, as well as to the specifics of control and supervision in this area.

The textbook is one of the first scientific works written by a team of authors of the Department of Financial Law as part of the training of masters in the program "Legal regulation of blockchain technology", developed jointly by the Kutafin Moscow State Law University (MSAL) and the RUDN University Law Institute.

Digital economy: conceptual foundations of legal regulation of business in Russia: monograph / L. V. Andreeva, D. A. Gavrin, P. Ye. Egorov and others; ed. by V. A. Laptsev, O. A. Tarasenko. Moscow: Prospect, 2021. 488 p.

The monograph is a legal guide in the era of the digital economy. It examines the institutional and functional features of legal regulation of business in the context of digitalization. Among other things, the book provides an analysis of the doctrinal positions and judicial practice, as well as the results of statistical and economic research.

For visualization purposes, the material is illustrated with diagrams and tables. The legislation is given as of July 31, 2020. The target audience of the monograph is scientists, graduate students, undergraduates, entrepreneurs, practicing lawyers, teachers of legal and economic universities, government officials and everyone who is interested in the problems of legal regulation of digitalization of the business sphere.

Problems of transformation of the system of legislation in the context of the development of digital technologies: monograph / A. V. Kornev, I. S. Barzilova, S. V. Lipen and others; ed. by A. V. Kornev. Moscow: Prospect, 2021. 176 p.

This monograph examines a number of issues that could be qualified as the evolution of the system of law and the system of legislation in the context of the development of information technologies. The emphasis is made on those factors and conditions that will dominate in the process of transformation of the legal system.

Certain forecasts are made, some problems are outlined and options for their solution are outlined. The legislation is current as of September 2019. The publication is aimed at those interested in digital technologies and its impact on the legal environment.

Tsaregradskaya Yu. K. Legal regulation and legal support of ICO: textbook / Yu.K. Tsaregradskaya. Moscow: Prospect, 2021. 768 p.

The textbook provides comprehensive and authoritative coverage of the new institution of financial science and financial law ICO. A variety of theoretical approaches and mechanisms of legal regulation of tokens, their types, ICO, crowdfunding are revealed.

The textbook provides information about the regulation of these relations in a number of jurisdictions. The legislation is as of September 2020. This book is essential reading for any student of Jurisprudence (40.04.01), studying the formation and development of tokens, ICO, crowdfunding, as well as graduate students and teachers of legal and economic educational organizations.

Arzumanova L. L., Boltinova O. V., Petrova I. V. Digital technologies as an instrument of financial control: a textbook for a master's degree /; ed. by L. L. Arzumanova. Moscow: Norma: INFRA-M, 2021. 104 p.

The textbook provides an in-depth analysis of the definition and the meaning of digital technologies, the legal nature of information interaction in the implementation of control activities based on general theoretical concepts and statutory instruments. Particular attention is paid to the types of information systems used in the control process in the financial and budgetary sphere.

The book substantiates the need to create information systems taking into account international experience, global indices and the rules of the Organization for Economic Co-operation and Development (OECD). The specific characteristics of state information systems used during control (monitoring) in the financial and budgetary sphere are determined, the subsystems that constitute the state integrated information system "Electronic budget" and other information systems in the information space of the Russian Federation are considered.

The book also analyzes interdepartmental information interaction and digital methods that ensure the protection of information in the context of financial control. The textbook is aimed at master's degree students, postgraduate students and teachers of legal and non-legal universities, as well as practicing lawyers.

Blockchain in Payment Systems, Digital Financial Assets and Digital Currencies: A Study Guide for Master's Degree / ed. by T. E. Rozhdestvenskaya, A. A. Sitnik. Moscow: Norma: INFRA-M, 2021. 128 p.

Based on the analysis of financial legislation, law enforcement practice and the doctrine of financial law, the textbook provides a comprehensive coverage of the concept of a payment system, features of the legal status of participants in payment systems, rules for the provision of money transfer services, and assesses the prospects for introducing blockchain technology into the payment infrastructure.

The textbook also analyzes the provisions of the Federal Law of July 31, 2020 № 259-FZ "On digital financial assets, digital currency and on amendments to certain legislative acts of the Russian

Federation”, examines the legal nature of financial assets and digital currencies, and notes theoretical issues and prospects for their legal regulation. The textbook is aimed at master’s degree students, postgraduate students and teachers of legal and economic universities, as well as practicing lawyers.

Vasilevskaya L.Yu., Poduzova E. B., Tasalov F. A. Digitalization of civil circulation: problems and development trends (civil law research): monograph: in 5 volumes. Moscow: Prospect, 2021. Volume 1 / L.Yu. Vasilevskaya, E. B. Poduzova, F. A. Tasalov; ed. by L.Yu. Vasilevskaya. 300 p.

The monograph is the first volume of a series of books devoted to the most urgent and highly-demanded issues of digital civil circulation. Despite the abundance of law books on digitalization, as well as the presence of a regulatory framework, a significant number of theoretical and practical issues remain unresolved or resolved incorrectly. This book presents and substantiates the author’s approaches to solving the problems of digital civil circulation using legal, economic and technical material.

A practice-oriented approach makes the monograph interesting for representatives of the business community and legal practitioners. The monograph is based on a systematic, detailed analysis of a large number of legal, economic, technical sources of Russia and foreign countries. Each chapter of the monograph contains a list of legal acts, legal precedents as well as additional law books. Legislation is current as of February 2021.

Digitalization of civil circulation: problems and trends in the development of digital medicine (civil law research): monograph: in 5 volumes. Volume II / L.Yu. Vasilevskaya, E. B. Poduzova; ed. by L.Yu. Vasilevskaya. Moscow: Prospect, 2021. 278 p.

The monograph is the second volume of a series of books devoted to the most urgent and highly-demanded issues of digital civil circulation. The book provides an in-depth analysis of the practical issues of digital medicine.

Special attention is also paid to the specific practical recommendations for the medical care in a digital environment (such as digital interaction with the patient and his legal representative, digital medical document management, protection of the rights of doctors in the case of “patient extremism”, etc.). Legislation is given as of February 2021.

Digitalization of civil circulation: legal characteristics of artificial intelligence and digital subjects (civil law research): monograph: in 5 volumes. Moscow: Prospect, 2021. Volume 3 / L.Yu. Vasilevskaya, E. B. Poduzova, F. A. Tasalov; ed. by L.Yu. Vasilevskaya. 288 p.

In 2021, volume 3 of the monograph devoted to the digitalization of civil turnover was published. The authors of the monograph are leading scholars of the Department of Civil Law of the Kutafin Moscow State Law University (MSAL): Doctor of Law, Professor L.Yu. Vasilevskaya, Candidate of Law, Associate Professor of the Department E. B. Poduzova, as well as Candidate of Law F. A. Tasalov.

The authors analyzed the concepts of “artificial intelligence” and “artificial intelligence technologies” and revealed their correlation, differences in constitutive features, and legal nature. The monograph also examines the features of the civil law regime of these concepts, the main contracts for the disposal of exclusive rights to artificial intelligence and related technologies. Special attention is also paid to the issues of the status of digital entities, including its status in the field of digital procurement.

REVIEW OF ANNIVERSARY EVENTS AND SCIENTIFIC AND PRACTICAL CONFERENCES DEDICATED TO THE DEVELOPMENT OF DIGITAL LAW

All-Russian Scientific and Practical Conference “Digitalization of market relations: issues of economics and law”

On March 25, 2021 the II All-Russian Scientific and Practical Conference “Digitalization of market relations: issues of economics and law” took place in a distance format in Zoom. The Conference was organized by the Department of Criminal law and criminology of the All-Russian State University of Justice (RLA of the Ministry of Justice of Russia).

During the conference, the participants discussed such issues as creating a safe legal environment for citizens, business representatives and the state in the digital economy, protecting the rights and legitimate interests of business in the digital economy, organizational and legal protection of state interests in the digital economy, the development of digital technologies in the financial sector of the economy, prospects for the development of e-commerce in crisis conditions.

All-Russian Scientific and Practical Conference “Economic Security and Digital Sovereignty of Russia”

On April 8, 2021 the All-Russian Scientific and Practical Conference “Economic Security and Digital Sovereignty of Russia” was held at the Kutafin Moscow State Law University (MSAL). The conference was organized by the Department of Business and Corporate Law of the Kutafin Moscow State Law University (MSAL).

During the Conference participants discussed the most relevant issues, such as experimental legal regimes, the penalty in business contracts in the context of the COVID-19 pandemic, boosting in the legal environment, regulation of digital transformation of the public procurement system, security of the circulation of digital financial

assets, the legal regime of investment activity on the terms of an agreement on the protection and encouragement of investment in the Russian Federation, as well as electronic document management in cross-border business transactions in the EEC, etc.

The conference was moderated by Doctor of Law, Professor of the Department of Business and Corporate Law of the Kutafin Moscow State Law University (MSAL), judge of the Moscow Arbitration Court, V. Laptev, and Doctor of Law, retired Chairman of the Moscow Arbitration Court, Chief Researcher of the Civil Law Sector, Civil and Administration Procedure of the Institute of State and Law of the Russian Academy of Science, S. Chucha.

International Scientific and Practical Conference “Copyright is a key element of the digital economy”

On May 20, 2021 an international scientific and practical conference “Copyright is a key element of the digital economy” was held at the Russian State Academy of Intellectual Property (RSAIP). During the Conference, Rector of RSAIP A. O. Arakelova, Head of the Department of Copyright, Related Rights and Private Law Disciplines T. T. Aliyev, Junior Program Manager, representative of the Copyright Development Department of the World Intellectual Property Organization (WIPO) M. Alhabbal addressed the participants with a welcoming speech. The Conference was attended by representatives of leading universities in Russia and foreign countries, such as the Kutafin Moscow State Law University (MSAL), Lomonosov Moscow State University, RSAIP, Turan-Astana University (Kazakhstan), as well as representatives of the Federal Service for Intellectual Property, etc.

Saint-Petersburg International Legal Forum (SPBILF) 9th

On May 18 — 22, 2021 the St. Petersburg International Legal Forum (SPBILF) was held in St. Petersburg. During the Forum participants discussed the most relevant novelties of law and economics. The speakers of the Forum were acknowledged experts and practitioners in various fields of law, Russian and foreign state representatives, academics with international reputations and heads of legal departments from major companies.

Special attention was paid to the issues of digitalization, in particular: “Digital Ruble: Choosing Legal Solutions”, “Digital Technologies on Financial Market: Legal Perspective”, “Digital Rights — New Human Rights”, “Digitalization of National Jurisdiction”, etc.

Round table “Digital Law”

On May 25, 2021, Dostoevsky Omsk State University (OmsSU) hosted a round table dedicated to the development of digital law. The round table was organized by the Department of Civil Law of the Faculty of Law of the OmsSU.

During the event, the participants discussed such issues as the main directions of development of legislation in connection with the digitalization of the economy, the introduction of civil turnover based on digital technologies (electronic transactions, online platforms, digital rights, turnover of intellectual property results in the digital economy, the legal status of cryptocurrencies (digital money), legal aspects of artificial intelligence and robotics, attracting investments using crowdfunding platforms, etc.

Euro-Asian Law Congress

On June 3—4, 2021, the XIV session of the Euro-Asian Law Congress “Law as a Value” was held in Yekaterinburg. During the event, a meeting of the expert group “Digital law and Economics” was held. The work of the group was coordinated by Dr. Sci. (Law), Professor, Head of the Department of Business Law of the Ural State Law University (USLU) V. S. Belykh, Dr. Sci. (Law), Professor, Head of the Department of International Cooperation of the Kutafin Moscow State Law University (MSAL), Professor of the Department of Competition Law, Co-President of the International Alliance of Lawyers and Economists (France) M. A. Egorova, and Dr. Sci. (Law), Professor, Head of the Department of Business and Corporate Law of the Kutafin Moscow State Law University (MSAL) I. V. Ershova.

During the work, the participants of the group discussed such issues as the digital economy: modern challenges, problems of information security of the digital economy, experimental legal regimes in the context of digitalization, trends in the development of digital business and digital law in Russia and foreign countries, digital rights and financial assets, digital rights and international cooperation, etc.

IV International Legal Forum “Contemporary Problems of Law and Economics in Europe and Asia”

September 12—15, 2021 the Kutafin Moscow State Law University (MSAL) hosted and International Legal Forum that brought together leading experts in the field of law and economics of European states and Asian countries on one platform. The Forum was organized by the International Alliance of Lawyers and Economists (France) together with the Kutafin University (MSAL), the Swiss Center for International Humanitarian Law and the Johann Heinrich Pestalozzi University (Miami, USA).

The event was opened by the welcoming speech of : First Vice-Rector of the Kutafin University (MSAL) E. V. Gracheva, President of the Forum, Head of the Department of International Cooperation of the Kutafin University (MSAL) M. A. Egorova, Deputy Mayor of Cannes for International Relations (France) T. de Pariente, Counselor on Legal and Judicial Issues of the Embassy of France in Russia B. Danlo, First Vice-Rector of the Lumiere Lyon 2 University (France), in charge of the board of directors and international relations J. Walker, Secretary General of the International Interdisciplinary Innovation Center for life “Alliance of the Nations of the World”, Ambassador of Peace, A. Shapiro-Suliman.

The Forum participants discussed issues such as the rule of law in the context of sustainable development, new technologies, as well as digital technologies in law-making activities, features of legal restrictions that hinder the development of the digital economy, etc. The work of the Forum was anticipated by the presentation of the monograph “Actual problems of law and economics from the perspective of interdisciplinary scientific research as a form of international cooperation” under the general editorship of the rector of the Kutafin University (MSAL) V. V. Blazhev and President of the Forum, Head of the Department of International Cooperation of MSAL M. A. Egorova.

Scientific and Practical Conference “Digitalization and Law”

On October 7—8, 2021, an All-Russian scientific and Practical conference was held in Kazan. The Conference was organized by the Educational and Methodological Center of the Federal Antimonopoly Service (FAS), the Office of the Federal Antimonopoly Service for the Republic of Tatarstan and Kazan (Volga Region) Federal University. The conference was attended by representatives of directorship of the Federal Antimonopoly Service of the Russian Federation, the directorship of the Republic of Tatarstan, leading scientists and practitioners.

During the conference, 4 sections were organized: “Competition Law in the digital era”, “Criminal Law in the digital era”, “Civil Law and Business Law in the digital era” and “Legal aspects of digitalization of public services”. The sections were attended by employees of the Kutafin University (MSAL): Head of the Department of International Cooperation of the Kutafin University (MSAL), Co-President of the International Alliance of Lawyers and Economists (France), Dr. Sci. (Law), Professor, M. A. Egorova; Dr. Sci. (Law), Professor of the Department of Business and Corporate Law of the Kutafin University (MSAL), O. A. Tarasenko; Cand. Sci. (Law), Associate Professor of the Department of Information Law and Digital Technologies, Associate Professor of the Department of Business and Corporate Law of the Kutafin University (MSAL), O. V. Sushkova, etc.

XIII International Round Table “Crimes in the field of economics: Russian and foreign experience”

On October 12, 2021, the Kutafin University (MSAL) hosted a round table “Crimes in the field of economics: Russian and foreign experience”, which was attended by more than 200 participants. One of the key topics for discussion was crimes in the digital economy.

X International Scientific and Practical Conference “Law in the Digital Era”

On October 15, 2021, the National Research University Higher School of Economics (HSE University) hosted the X International Scientific and Practical Conference aimed at elaborating approaches to addressing vital legal problems related to the modern technological environment.

During the Conference, a plenary session was held on various aspects of the development of law in the digital age. Further, the work of the Conference continued in the format of sections devoted to such issues as: “IT. Right. Business”,

“Lawyers in the digital environment”, “Personality, law, the state in the digital era”, “The state in the digital era: opportunities and risks”, “Intellectual property law in the digital era” and a round table on the topic “The law of digital platforms”. The Conference was attended by leading Russian experts and researchers, practicing lawyers, as well as international experts.

I International Forum “Ethics of Artificial Intelligence: The Beginning of Trust”

On October 26, 2021, the TASS press center hosted the I International Forum “Ethics of Artificial Intelligence: The Beginning of Trust”, which became the first specialized platform in Russia where developers and users of artificial intelligence (AI) were able to discuss steps to effectively implement the ethics of AI in priority sectors of the Russian economy.

During the Forum, participants also discussed such issues as: ethical principles of AI development and application, government measures to support AI technologies, world practices of ethical regulation of AI, mechanisms for implementing ethical principles of AI in priority sectors of the economy, international cooperation on AI development, etc.

The key event of the Forum was the presentation of a Code of Ethics of AI developed in accordance with the requirements of the National AI Development Strategy for the period up to 2030.

International Scientific Conference “Legal foundations of the formation and development of the information society in Russia”

On October 29, 2021, the Rostov branch of the Russian State University of Justice hosted the conference “Legal Foundations of the Formation and Development of the Information Society in Russia”.

International Conference “Law and Digital Technologies: The Way Forward”

On November 10-11, 2021, the international conference “Law and Digital Technologies: The Way Forward” was held. The Conference was organized by South Ural State University, Ambra University (USA) and Universidade Candido Mendes (Brazil) in partnership with BRICS Law Journal and University of Bologna Law Abstract. During the conference, 9 sections were held, in which 78 scientists from Brazil, the USA, Russia, India, Poland, Italy, Great Britain, Romania took part.

The moderators of the sections were highly qualified experts from leading universities of

Russia and abroad: Lomonosov Moscow State University (MSU), Kutafin Moscow State Law University (MSAL), Ural State Law University (USLU), South Ural State University, as well as Universities of Canada, Great Britain and Brazil.

XIX International Scientific and Practical Conference with international participation Economy digital industry “Industry 5.0, digital economy and intelligent ecosystems” (EKOPROM-2021)

On November 18—20, 2021, a scientific and practical conference with international participation was held at Peter the Great St. Petersburg Polytechnic University (SPbPU) (Higher School of Engineering and Economics, UNESCO Department, Research Laboratory “Digital Economy of Industry”).

The conference was attended by representatives of both Russian and foreign universities, such as: Institute of Problems of Regional Economics of the Russian Academy of Sciences (Center for Regional Problems of Quality Economics), Institute for Economic Studies — Subdivision of the Federal Research Centre Kola Science Centre of the Russian Academy of Sciences (IES KSC RAS), Immanuel Kant Baltic Federal University, Siberian Federal University, North-Eastern Federal University, Tomsk National Research Polytechnic University, Karaganda University (Kazakhstan), Tajik Technical University, as well as representatives of the International Alliance of Economists, the Association of Industrial Enterprises of St. Petersburg, etc.

During the conference, its participants discussed the current state and sustainable development of the digital economy in the context of global challenges, the concept of Industry 5.0, the development of regional and sectoral economy in the context of digitalization, green and sectoral economy, the use of digital technologies in the economy, digital platforms, and the problems and prospects of training specialists for the digital economy.

International Scientific and Practical Conference “Cryptocurrency as a Means of Payment”

On November 26, 2021, as part of the Moscow Legal Week, an international scientific and practical conference “Cryptocurrency as a means of payment” was held. During the Conference, participants discussed issues such as the legal nature of cryptocurrency, private law regulation problems, private legal aspect of digital financial assets, bitcoin as a special type of cryptocurrency, place of cryptocurrency in the system of objects of civil rights, legal regulation of the issue, storage, exchange, purchase and sale of cryptocurrencies, legal regulation of the issue of national digital currencies — CBDC, principles and methods of legal regulation of digital technologies in public finance, etc.

The event was opened by the Vice-Rector for Research of Kutafin University (MSAL), Dr. Sci. (Law), Professor, Honored Scientist of the Russian Federation V. N. Sinyukov, warmly welcoming the participants of the Conference. The Conference was moderated by Dr. Sci. (Law), Professor, Head of the Department of International Cooperation of Kutafin University (MSAL), Professor of the Department of Competition Law, Chairman of the Commission for the Improvement of Antimonopoly Legislation of the Ministry of Justice M. A. Egorova and President of International NGO Sirius Global — Academic Diplomacy 4.0, Director of Startup Grind, representative of Cleantech clusters in Italy and Croatia G. Marcelja.

The work of the Conference was anticipated by the presentation of the monograph “Actual problems of law and economics from the perspective of interdisciplinary scientific research as a form of international cooperation “under the general editorship of the “Cryptocurrency as a means of payment: private law and tax aspects: monograph” / under the general editorship of Dr. Sci. (Law), Professor M. A. Egorova.

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