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Articles

Comment

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ISSUED QUARTERLY

"Legal Issues in the Digital Age" Journal is an academic quarterly e-publication which provides a comprehensive analysis of law in the digital world. The Journal is international in scope, and its primary objective is to address the legal issues of the continually evolving nature of digital technological advances and the necessarily immediate responses to such developments.

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LegalTech in Digital Economy and in Legal Regulation of Individuals Economic Activities

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Abstract

Based on law and doctrine, the article examines the categories of 'digital economy', 'LegalTech' and 'individuals' economic activities' in their interaction. It stresses that those categories represent Russia's priority lines of development and can be fully digitalised. Legal science reflects diverse interpretations of LegalTech. There is a widespread understanding is that LegalTech is a narrow toolkit for lawyers. The author argues for an expansive interpretation of LegalTech as a comprehensive phenomenon intended for a wide range of economic agents, and shows LegalTech to be both an element of the digital economy and a digitalised means for legal regulation of individuals' economic activities. Trends and risks in the implementation and use of LegalTech tools are identified. In the aspect of legal regulation, the functional characteristics of LegalTech are formulated on the basis of an instrumental legal approach.

Keywords

LegalTech, digital economy, artificial intelligence, Big Data, smart contract, legal regulation of individuals' economic activity, legal literacy, registration and reporting automation, control over economic agents' activities.

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Introduction

Digital economy, LegalTech, and the development and transformation of individuals' various economic activities are separate but interconnected phenomena that are all novel, experimental and multi-faceted. The link between them is digitalisation based on artificial intelligence and Big Data.

The relevance of studying the above categories is confirmed by the Programme of Fundamental Research in Russia for the Long Term (2021 to 2030)[1]. The priority lines of economic research relate to the 'development of civil society and self-organisation of citizens and aim to accelerate the innovation processes.' In turn, cited as the priority lines of legal studies are 'transformation of the law paradigm amid a digital economy, robotics development, and creation of a comfortable legal environment for Russia's global technological leadership; and continued development of entrepreneurial law.' The above shows that any area of life is subject to legal regulation, which also takes on a digitalised form. The economy and law are inter-related and can be digitalised in their entirety. So Leg

alTech (law/legal technology), while being a manifestation of digital law, also acts as both an element of the digital economy and a means for legal regulation of economic activities, including economic activities of individuals.

1. Digital Economy: Concept and Elements

In general terms, economy is the society's business activities in the system of the production, distribution and consumption[2] of tangible and intangible goods and resources. Owing to the processes of globalisation, digitalisation trends have been penetrating economy. As a result, we may now observe a new phenomenon of 'Digital Economy.'

[1] Executive order of the Government of the Russian Federation No. 3684-p 'On approving the Programme of Fundamental Research in the Russian Federation for the Long Term (2021 to 2030)' dated 31 December 2020 // SPS Consultant Plus.

[2] Available at: URL: https://ru.wikipedia.org/wiki/ (accessed: 23.05. 2022)

The legal concept of 'digital economy' is reflected in the Strategy for the Development of Information Society in the Russian Federation for the Years 2017–2030.[3] According to the Strategy, 'digital economy means economic activities for which the key factor is data in digital form processed in large volumes, which helps considerably raise the efficiency of various forms of production, processes, and equipment, and of storage, sales, and delivery of goods and services, as compared to conventional economic operations.'

The Strategy defines the digital economy ecosystem as a partnership of entities that supports interaction among technological platforms, applied Internet services, and information systems of government authorities, legal entities and individuals. On the basis of the concepts cited, we find it possible to identify elements of digital economy that include not only digital technology products as its objects and economic agents as its subjects, but also digital means for legal regulation of economic relationships.

The lines of Digital Economy development include numerous national programmes and strategies. E.g., the 2016 RF Strategy of Scientific and Technological Development[4] names, among its goals and outcomes, 'improvement of our people's living standards based on advanced research and technological renovation of the traditional sectors of our economy.'

Digital economy hinges on digital transformation, the principal trend and challenge in the development of our socio-economic and legal processes. That is why the digital transformation of the Russian economy was supported by the adoption of planning documents: the *Information Society* State Programme,[5] and the Strategy for the Development of Information Society in the Russian Federation for the Years 2017–2030.[6] The said programmes' priority objectives include digital transformation, creation of decent working conditions, and conditions for successful business. These

[3] Decree of the President of the Russian Federation No. 203 'On the Strategy for the Development of Information Society in the Russian Federation for the Years 2017–2030' dated 09 May 2017 // SPS Consultant Plus.

[4] Decree of the President of the Russian Federation No. 642 'On the Strategy of Scientific and Technological Development of the Russian Federation' dated 01 December 2016 (as amended on 15 March 2021) // SPS Consultant Plus.

[5] Resolution of the Government of the Russian Federation No. 313 'On the Approval of the *Information Society* State Programme of the Russian Federation' dated 15 April 2014 (as amended on 24 November 2021) // SPS Consultant Plus.

[6] Decree of the President of the Russian Federation No. 203 'On the Strategy for the Development of Information Society in the Russian Federation for the Years 2017–2030' dated 09 May 2017 // SPS Consultant Plus.

steps are expected to bring the key industries and social sphere to 'digital maturity.'

To follow up on the above legislation, the Russian President passed his Decree No. 204 dated 07 May 2018[7] that outlined our national development goals, consisting in breakthrough scientific, technological and socio-economic development. To further the goals set by the President in that Decree, the National Programme entitled 'RF Digital Economy'[8] was adopted in 2019, also as part of the *Digital Society* Programme. That strategic act is intended to form a new regulatory environment for the relations among individuals, businesses and the state arising from the development of digital economy.

The above legal acts and regulations, to name just a few, show that the state attaches crucial importance to digital transformation of the economy. Digital transformation encompasses all spheres of life: financial technology, standardisation, civil commerce, judicial proceedings, the notarial system, etc. The ongoing digitalisation processes have been driven by globalisation. Hence the special attention given to digital economy in the doctrine as well.

Researchers note that digital economy is a topical issue for discussion in modern science — but add that, 'despite the decisions taken by the state to develop digitalisation and to intensify activities,.. no clear-cut concept of law development with digital economy in place has been developed so far. The main problem is to figure out the path of further development of law.' [Abrosimova Ye.A., Andreyev V.K. et al., 2019]. Law seems to be lagging behind digitalisation. As remarked by S.I. Nosov, 'the impact of the development of digital technology on the legal system, like the modalities and directions of the transformation of law... remains mostly unexplored by legal science' [Nosov S.I., 2019].

As noted by Z.M. Kazachkova, 'formation and development of digital economy' is 'central to digital transformation' [Kazachkova Z.M. et al., 2021: 130–131]. In the light of the above, it seems especially necessary and relevant to study the digital transformation of the economy and law, as the regulator.

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[7] Decree of the President of the Russian Federation No. 07 May 2018 № 204 (as amended on 21 July 2020) 'On the National Goals and Strategic Objectives of the Development of the Russian Federation for the Period till 2024' // SPS Consultant Plus.

[8] Fact sheet of the National Project *National Programme 'Digital economy of the Russian Federation'* (approved by the Presidium of the Presidential Council for Strategic Development and National Projects', protocol No. 7 of 04 June 2019) // SPS Consultant Plus.

On the other hand, the doctrine fails to offer an unambiguous concept of digital economy. E.g., Yu.A. Tikhomirov and E.V. Talapina term digital economy as 'data economy' [Tikhomirov Yu.A., Talapina E.V., 2020: 22]. V.A. Vaipan formulates a broader concept, describing digital economy as a 'system of economic relations where data in digital form are a key input in all spheres' [Vaipan V.A. et al., 2019: 19]. M.N. Semyakin also supports this opinion [Semyakin M.N., 2020: 100].

On the other hand, some authors are critical of digital economy and its essence. In particular, A.Yu. Bykov notes that 'concepts are being substituted currently. The use of digital technology is called digital economy. That is a misconception. No supercomputer, nor even a quantum computer, is different from a wooden abacus known since the 20th century B.C., if only computing speed is now many orders greater. This has nothing to do with the economy. Only economic science can create digital economy — using economic tools.' [Bykov A.Yu., 2021: 5]. However, it is hard to fully embrace that opinion. If we proceed from the classical understanding of economy as economic activities of agents for the production, exchange and sale of tangible goods, then, in the case of digital economy, all the said processes and objects take on a digitalised format. In this case, a 'supercomputer' will be a tool of digital economy along with traditional inputs such as manual human labour (in its tangible physical sense). That is why digital (electronic) tools and resources are directly relevant to the economy.

In this perspective, it seems true that 'digital economy is a virtual environment that augments our reality.'[9] Indeed, literal interpretation of the term 'digital' (based on information in numerical form; binary information displayed from a computer or terminal[10]), with synonyms such as 'paperless' and 'numerical',[11] seems to perfectly agree with the understanding of something 'digital' as 'virtual.' Consequently, 'digital economy' features a digital (numeric/virtual) form of its elements that is, in turn, manifested in technology.

There is also a view of the levels of digital economy. E.g., V.A. Vaipan identifies three levels in digital economy development 'that closely interact

[9] Digital Economy: How Specialists Understand the Term. Available at: URL: https://ria.ru/20170616/1496663946.html (accessed: 08.09. 2022) (in Russ.)

[10] Dictionaries and Encyclopaedia. Available at: URL: https://dic.academic.ru/dic.nsf/ogegova/264410 (accessed: 08.09. 2022) (in Russ.)

[11] Dictionary of Synonyms. Available at: URL: https://sinonim.org/s/%D1%86%D0%B8%D1%84%D1%80%D0%B (accessed: 08.09. 2022) (in Russ.)

to influence the lives of individuals and society in general: markets and economic sectors; platforms and technologies; and an environment for the development of platforms and technologies, including normative regulation and information security' [Vaipan V.A. et al., 2019]. In other words, digital economy systematically understood consists of elements that include a set of digital technologies.

Given the legislative definition of digital economy and the breadth of doctrinal opinions about this phenomenon, we feel that digital economy is economic activities of agents based on digital (electronic/virtual) methods and instruments (technologies) for the production, exchange, consumption, and sale of tangible and intangible (including digital) objects and resources on the basis of digital data (information) and in digital space (digital electronic platforms and services) using digital means of legal regulation of economic relations. Digital economy is thus a system of components whose key components are digital technologies. These include LegalTech, to be discussed below.

2. LegalTech: Concept, Areas of Application, and Functions. LegalTech as an Element of Digital Economy

Digital technologies are often named after the areas of their application in the economy, e.g. LegalTech (law/legal technology), FinTech (financial technology), GovTech (State governance and municipal administration technology), MedTech (medical technology), FoodTech (food technology), etc., see for example: [Rozhkova M.A., Isayeva O.V. et al., 2021: 13, 202–300].

As noted by Russian researchers, 'digitalisation and new information technology induce changes in the nature of law subjects' activities, alter the scope of their legal relations and expand the horizons of their future activities' [Tikhomirov Yu.A., Kichigin N.V. et al., 2021: 20]. Put differently, law becomes embodied in LegalTech as it 'goes digital.'

In the absence of a legal concept of LegalTech, the phenomenon requires both theoretical and practical examination. The LegalTech portmanteau term should be understood as legal/law-related technology. Some researches draw attention to the co-existence of the terms 'LegalTech' and 'LawTech' [Rozhkova M.A., Isayeva O.V. et al., 2021: 200]). However, we

see no need to look for distinctions between them, for the English words, 'legal' and 'law',[12] relate to the same root concept.

LegalTech is primarily considered a highly specialised professional toolkit for lawyers. This position is widely shared by legal practitioners.[13] As such, LegalTech takes the form of, e.g., electronic jurisprudence selection[14] and contract drafting[15] services, state duty / penalty calculator,[16] 'My Arbitrator' service,[17] and some specialised platforms for lawyers.[18]

Another position is that LegalTech is generally a broad range of technological solutions that serve various actors[19]. We also adhere to an expansive interpretation of LegalTech as a set of digital tools for a broad range of users, including individuals, legal entities and government authorities, exemplified by such electronic resources as *Moy Nalog* ('My Tax')[20] taxpayer registration and tax reporting services, *Moy Biznes* ('My Business')[21] source of information about various legal and taxation regimes of economic activities (e.g. for legal entities, individual entrepreneurs, self-employed

[12] Cambridge Dictionary of the English Language: Meanings and Definitions. Available at: https://dictionary.cambridge.org/ru/ (accessed: 11.05. 2022)

[13] LegalTech Is Dead, Greet Innovation Management! Available at: URL: https://law.hse.ru/news/440214063.html (accessed: 08.09.2022); We, Science People, in LegalTech. Available at: URL: https://platforma-online.ru/media/detail/vadim-polulyakh-my-lyudi-ot-nauki-v-LegalTech/ (accessed: 08.09. 2022) (in Russ.)

[14] A New Tool for the Legal Practitioner: Jurisprudence Selection Service. Available at: URL: https://pravo.ru/edition/view/74817/ (accessed: 29.05.2022); The *Sutyazhnik (*'Litigant'*)* System. Available at: URL: https://garant-vrn.ru/sutyazhnik/ (accessed: 29.05. 2022) (in Russ.)

[15] Seven Useful Services for Working with Contracts. Available at: URL: https://vc.ru/services/249199-sem-poleznyh-servisov-dlya-raboty-s-dogovorami (accessed: 29.05. 2022) (in Russ.)

[16] State Duty Calculator. Available at: URL: https://vsrf.ru/; Penalty Calculator. Available at: URL: https://dogovor-urist.ru/calculator/dogovor_neustoyka/ (accessed: 29.05. 2022) (in Russ.)

[17] My Arbitrator' Service. Available at; URL: https://my.arbitr.ru/#index (accessed: 29.05.2022) (in Russ.)

[18] Specialised Platforms for Lawyers. Available at: URL: https://platforma-online.ru/media/detail/poleznye-programmy-dlya-yuristov-v-rossii/ (accessed: 30.05. 2022) (in Russ.)

[19] What LegalTech Is and How It Is Developing in Russia. Available at: URL: https://trends.rbc.ru/trends/industry/60acbdd69a79475b37ee5e63 (accessed: 08.09.2022) (in Russ.)

[20] My Tax Service. Available at: URL: https://npd.nalog.ru/app/ (accessed: 30.05. 2022) (in Russ.)

[21] My Business Service. Available at: URL: https://xn--90aifddrld7a.xn--p1ai/ (accessed: 30.05.2022) (in Russ.)

and professional workers), counterparty verification services[22], and various courts' websites[23] containing general legal information. So, in practical terms, LegalTech should be understood broadly, as an element of digital economy that serves the interests of a wide range of agents and as a means for legal regulation of economic activities.

As for the degree of research elaboration of the LegalTech category, this should be deemed insufficient. The doctrine lacks a common opinion about LegalTech. The first position is that LegalTech is a specialised legal category of digital tools. Most researchers tend to understand LegalTech in a narrow sense, as a digital technology for professional lawyers. M.A. Rozhkova and O.V. Isayeva define LegalTech as 'services based on information systems, various (B2B) platforms, software, products and tools, specially developed to streamline the processes that constitute professional activities of lawyers' [Rozhkova M.A., Isayeva O.V. et al. 2021: 203]. S.F. Afanasyev holds a similar opinion and describes LegalTech as a burgeoning special area in the technological support of law-related activities [Afanasyev S.F., 2020: 47], as does A.N. Mitin who calls LegalTech 'a new business area that specialises in IT support of professional lawyers' activities' [Mitin A.N., 2019: 82]. In turn, M. Ye. Kosov formulates several meanings of LegalTech: 'legal technology for lawyers' and 'a concept of using technology to address legal issues' [Kosov M. Ye., 2019: 19].

Foreign scholars also believe that LegalTech belongs to the narrow area of the legal profession [Ambrogi R., 2017: 28–31]; [Alcantar K., Gillespie K., 2019: 48–51].

However, we believe that, while examining LegalTech in its narrow meaning, we should bear in mind that legal services and products are used by a wide range of economic agents. Seen from this perspective, LegalTech directly affects the interests of both legal professionals and the agents who depend on the professionals' work.

On the other hand, upon analysing the doctrinal positions and in the light of the practice of LegalTech use in lawyers' highly professional activities, we have identified a number of trends and risks in that area.

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[22] Single State Register of Individual Entrepreneurs. Available at: URL: https://egrul.nalog.ru/; Verification. Available at: URL: https://www.kartoteka.ru/ (accessed: 30.05. 2022) (in Russ.)

[23] See e.g. arbitration courts' website. Available at: URL: https://kad.arbitr.ru/ (accessed: 08.09.2022), and website of the Supreme Court of the Russian Federation. Available at: URL: https://supcourt.ru/ (accessed: 08.09. 2022) (in Russ.)

LegalTech is based on artificial intelligence that has been supplanting people. Researchers fear that LegalTech technology may eventually replace human lawyers [Uvarov A.A., Uvarov A.A., 2020: 10]. Yet, there are other opinions on this matter. E.g., A.N. Mitin is convinced that a lawyer's work cannot be automated completely, so 'creative work of lawyers will be in demand so long as the human civilisation exists' [Mitin A.N., 2019: 85], and we fully agree with him.

In our opinion, the trend towards replacement of the lawyer with a robot does exist, but we must take into account the possibility, conditions of use and availability of digital technology and services to the parties to legal relations. Digital technology, including LegalTech, can only serve as leverage for solving the tasks at hand. Besides, as we see human beings replaced with artificial intelligence, a moral and ethical problem arises: individuals experience psychological stress because they realise they become redundant and the need to re-train for another profession.

Along with the above aspect, there emerges a need for new specialists who can develop and maintain LegalTech digital products. In this connection, we believe the findings in the Report of the NAFI Analytical Centre's study entitled 'Legal Tech 3.0: Legal Tech Market in Russia and Worldwide' to be quite relevant. The Centre notes a growing demand for such specialists as legal architects, legal engineers, digital guides, robot's lawyer, retrainers, etc.[24].

On the other hand, J. McGinnis and R. Pearce show conclusively that artificial intelligence will serve to weaken lawyers' market power. It means that 'lawyers will <…> fail to prevent non-lawyers from using it to deliver legal services.' Artificial intelligence will 'trigger the end of lawyers' monopoly and provide a benefit to society and clients as legal services become more transparent and affordable to consumers and access to justice thereby becomes more widely available.' [McGinnis J., Pearce R., 2019: 1230–1231]. We believe the above to be exemplified by the Skolkovo service, a LegalTech platform designed to alert businessmen to contract provisions that bear signs of various risks.[25]

[24] Legal Tech 3.0: Legal Tech Market in Russia and Worldwide — LegalTech Trends 2020-2030. Available at: URL: https://nafi.ru/projects/predprinimatelstvo/LegalTech-3-0-rynok-LegalTech-v-rossii-i-v-mire/ (accessed: 18.05.2022) (in Russ.)

[25] Skolkovo Resident's Service to Alert Businessmen to Pitfalls in Contracts. Available at: URL: https://www.cnews.ru/news/line/2022-02-01_servis_rezidenta_skolkovo (accessed: 27.05. 2022) (in Russ.)

In general, we are compelled to note that robotisation, as a manifestation of digitalisation, actually underlies LegalTech and poses risks for the transformation of some forms of individuals', including professional lawyers', economic activities.

LegalTech as 'machine-readable law.' There are purely doctrinal interpretations of LegalTech based on the categories of 'information law', 'machine-readable law', and 'digital transformation law.' S.G. Yeremeyev, A.V. Mayorov and Ye.N. Minchenkov regard LegalTech as an area of legal science — 'digital transformation law', as a sub-branch of information law. As the legal concept of LegalTech, the authors cite information law, and mention the link between man and equipment and the legal systems' objective and inevitable response to the technological changes [Yeremeyev S.G., Mayorov A.V., Minchenkov Ye.N., 2019: 11, 13–14, 16]. While we agree with the above statement, we have to note that the development and transformation of the existing institutions certainly requires understanding from the legal science perspective. Scientifically, 'machine-readable law' as a phenomenon based on information in digital form, a manifestation of LegalTech, has undeniable prospects ahead. Moreover, its scientific prospects are conditioned by the ambiguous content of LegalTech as such. All that provides fertile ground for scholarly reflection.

Besides, I.V. Ponkin cites the 'machine-readable law' category as a direction of digital transformation in law, an integral part of digital transformation in public administration, and an element of LegalTech regulatory technology. The author does not explain the LegalTech concept in his study but describes its component parts, including 'machine-readable law' — 'legislation as a code' and 'normative regulation as a code.' He notes that the purpose of that line of transformation is 'so that laws can be read and applied by machines' [Ponkin I.V., 2021: 231–232]. We should agree with the author in that pre-requisites for the development of digital technology in the direction of machine-readable law as part of LegalTech (law technology) do exist. As the same time, we should distinguish 'laws in code', to be read by machines, from laws that require subjective assessment by a professional lawyer. Hence, we can regard 'machine-readable law' as a LegalTech tool.

Moreover, in respect of the prospects, A. Pronin boldly predicts that 'as automation technology is implemented on blockchain platforms, we shall be able to develop smart laws, or self-executing laws (similarly to smart contracts).' As an example of a law transcribed into digital code, the author

cites 'camera-based automatic traffic ticketing systems.' However, we do not regard this example as a 'smart law' in the sense of digital (electronic) legislation. It is most probably an instance of 'smart jurisprudence' — automatic application of a rule of law that implements penalty measures for violations of the existing regulations.

Scholars also point to another fairly efficient application of artificial intelligence in the field of legislation, namely detection of conflicts of law [Pronin A., Vashkevich A. et al., 2017: 25]. We believe that such application of LegalTech seems quite appropriate, for it fully meets the efficiency criteria in digital economy.

Importantly, a Concept of the Development of Machine-Readable Law Technology[26] (hereinafter referred to as 'the Concept') has been developed for machine-readable law technologies, which justifies the relevance of developing machine-readable law because it will be more convenient to use for the State, business community, and individuals. The Concept notes the Russian experience of using machine-readable law in various business projects, in the form of such business projects as 'Robot Lawyer' (Department of Sberbank), 'Digital Lawyer' (MegaFon Company), and the *Normotvorchestvo* (*Rule-making*) platform in support of interaction between participants in the rule-making process under the '*Digital Governance*' federal project of the *Digital Economy* programme. The Concept also outlines its areas of application: standardisation and certification, deals in machine-readable format, control and oversight, reporting, court and administrative proceedings, rule-making, and interaction between state information systems and digital platforms.

The Concept adopted is obviously a LegalTech tool and aims to promote the development of digital economy. However, large-scale use of machine-readable law at the entire Russian State's level is still premature — for a number of objective socio-economic, legal and technological reasons (the ability/inability of various law subjects to use digital products, and citizens' mentality). One of the main legal causes is that law is inherently conservative. This is attributable to 'legal rules' occasional departure from the laws of formal logic.' So 'law will have to be altered first, so that its terms have the same content in all laws. A titanic task!' [Mitin A.N., 2019: 83]. Besides, 'many of

[26] Concept of the Development of Machine-Readable Law Technology. Approved by the Governmental Commission for Digital Development and the Use of Information Technology for Improving Quality of Life and Conditions for Entrepreneurial Activities. Protocol No. 31 dated 15 September 2021 // SPS Consultant Plus.

our laws are not directly prescriptive but require, instead, a subjective review and attention to nuances and merits of the case' (Ponkin I.V., 2021: 235]. The above points to machine-readable law's development potential, on the one hand, and to the difficulties and problems hindering its adoption, on the other. In the context of the prospect of LegalTech development for the automation of rule-making, we see reason in D.S. Gvozdetsky's call for 'planned introduction of digital products' into public rule-making [Gvozdetsky D.S., 2020: 34-35]. We believe that gradual adoption of such technologies in this area should aim to facilitate adaptation for all the participants in rule-making and law application processes. 'Planned' application should ultimately influence the efficiency of the digitalised measures to be taken.

Thus, the use of LegalTech tools intended for professional lawyers clearly helps to optimise routine working processes, organise legal information, and facilitate review of court rulings. On the other hand, positive aspects of LegalTech use are accompanied by difficulties in re-training professional lawyers and by potential risks that lawyers can be supplanted by artificial intelligence.

A second understanding of LegalTech is that it represents digital law tools for a broad range of users. The legal regulation of virtually all the spheres of the economy has now been digitalised. If we review economic activities in industry breakdown, we can see that digital LegalTech tools are now being created in every area and used by service providers (professional lawyers) as well as consumers and public authorities.

E.g., LegalTech in the public administration area is represented by such electronic services as *Moy Nalog* ('My Tax'), that automates the registration of economic agents and their tax reporting, and *Moy Biznes* ('My Business') service that helps agents not only obtain legal information but also benefit from state/municipal support measures.

We also find it quite possible to count the following automated resources among LegalTech services: automatic services for monitoring, recording and documenting traffic offences for subsequent imposition of administrative penalties; 'Electronic Government' for inter-departmental co-operation among public authorities; *Gosuslugi* ('State Services') that helps individuals and legal entities order and receive electronic certificates and various state and municipal services.

Also widely discussed is the prospect of courts adopting LegalTech tools to pass and document their judgements automatically. Current legislation permits using electronic services in court to hold online hearings and to file

lawsuits and letters of claim in digital form with courts and arbitration tribunals. We fully support V.Yu. Abramov's position that 'e-justice is a branch of digital technology used in the system of public justice administration functions...exemplified by such systems as *GAS Pravosudie* ('Justice' State Automated System), *Moy Arbitr* ('My Arbitrator'), and the Bank of Arbitral Awards' [Abramov V.Yu., 2022: 40–41]. The above services are essentially LegalTech tools intended for professional lawyers only. However, they may well be used by any person seeking a judicial remedy — by filing electronic letters of claim, attending online hearings, monitoring the progress of the proceedings, etc. So, the use of LegalTech in this area touches upon the interests of a wide range of agents.

The notarial system has also been digitalised and has consequently adopted LegalTech tools. Electronic notarisation services are now rather widely used, as parties to a deal submit electronic documents to Rosreestr (to have the transfer of title to real estate registered) or to the tax authorities (to report disposal of an interest in authorised capital).

Russian experts also note a 'non-obvious trend' for LegalTech use, triggered by a 'growth in some segments of the shadow market, such as the counterfeit products market, which elicits tools for tracking down counterfeit products at various stages of the supply chain.'[27]

In addition to Nalog.ru (website of the Federal tax service) and the *Moy arbitr* service (websites of arbitration tribunals), numerous services are publicly available for obtaining information in digital format about economic agents that help ascertain an agent's legal status (find information about its incorporation, re-organisation, licenses held, any bankruptcy proceedings or litigation in progress, etc.) We believe that economic agents informed of their prospective counterparties' legal status get assured that the latter are in good standing and act in good faith, and that dealing with them carries no risk of adverse events (e.g., a party aware that its counterparty is facing bankruptcy may refrain from entering into a property disposal contract with it, for a debtor's deals may legally be contested by its creditors).

As regards the regulation of contractual obligations in business, the use of the 'smart contract' legal arrangement is noteworthy. The smart contract, as a product of digitalisation and technology, is of a complicated and ambiguous nature that may be presented as a variety of e-contract, a separate

[27] What LegalTech is and How it is Developing in Russia. Available at: URL: https: // trends.rbc.ru/trends/industry/60acbdd69a79475b37ee5e63 (accessed: 08.05.2022) (in Russ.)

form of deal/contract, and a manner of obligation performance all in one. The smart contract is also described as 'a widespread LegalTech technology… The smart contract falls under the concept of a computer programme by virtue of Article 1225.1 of the Civil Code of the Russian Federation' [Minbaleyev A.V. et al., 2022: 37]. So, the author concludes that the smart contract is a computer programme. A. Vashkevich holds a similar position as he notes that 'smart contracts in private relations' also constitute LegalTech tools. 'Businesses need automated legal relations, to become less dependent on the parties' will… The potential of smart contracts operating in the real economy largely hinges on their link with Internet of Things and with external information systems' [Pronin A., Vashkevich A. et al., 2017: 29]. Given the range of opinions on the smart contract, we tend to regard the smart contract as a general purpose LegalTech tool intended for more efficient discharge of the contractual obligations of economic agents.

As noted above, the elements of digital economy are digital services and platforms. These are widely used in various economic activities, especially by entrepreneurs. 'Digital platforms are increasingly talked about as a marketplace, i.e., a meeting place for two or more natural or legal persons to exchange values in some form or other… The best-known modern platforms have come from the B2C contracts area and from the service sector. This field is both interesting and very complicated as regards its legislative framework. It expands on the domain of 'platform law' that 'is of great social significance and will help raise our State's economic potential considerably…' [Altukhov A.V., Kashkin S.Yu., 2021: 93]. Certainly, any new phenomenon should eventually be reflected in law for the economic relations to stabilise. Any legal uncertainty will reduce the efficiency of the legal regulation of economic relations.

Foreign authors also call for broadened understanding of LegalTech. E.g., in his study, Professor Matthias Schneider (Germany) describes LegalTech as 'digitalised legal services, an opportunity and challenge for the public and private sectors.' The author cites examples of LegalTech used in administrative, procedural, and environmental law [Schneider M., 2020: 297–302]. U.S. studies report about application of digital law technology in the field of real estate, see for example: [Byrne M., 2019]. Positions are expressed in India as well [Shah H., Srivastava A., 2014: 208-230]. All this shows ample use of LegalTech technology.

On the other hand, the use of LegalTech tools, including digital platforms, entails the use, processing and storage of large volumes of user data,

the so called Big Data. While no legal definition of Big Data has been formulated yet, this does not prevent from using the term used in theoretical and practical studies in the meaning of an extensive array of various information. We share the opinion of V.D. Churakov, who states and proves that Big Data 'makes it possible to explain existing phenomena and predict behaviour in the field of law'; this should be distinguished from statistical data. Big Data needs a legal definition [Churakov V.D., 2020: 101–102].

But, however attractive LegalTech tools (law information systems, automatic imposition of fines, information banks, electronic document management, digital platforms, etc.) based on Big Data may be, there are potential risks for subjects of law. E.g., in his study on legal issues in a digital environment, O.A. Stepanov notes that 'growing computerised databases of personal data <…> pose a risk of covert invasion of privacy'. A person's digital profile can accumulate a lot of information about the amount and sources of his/her income, employment, tax revenues, information sources visited ('digital footprint', 'online behaviour'). 'It is expected that not only public authorities but also private sector companies will be able to use the information array.[28] Not only people's financial flows but also their lives become transparent' [Stepanov O.A., 2021: 24, 25].

Indeed, the above-mentioned social relations are fraught with certain risks: data leaks, information attacks, etc. However, digital technology can hardly be stopped from evolving in this direction. We believe that the procedures for using Big Data need more specific regulation and control, so that personal security can be safeguarded.

Yu.S. Kharitonova and V.S. Savina also raise the issue of legal regulation of Big Data and its secure use in the context of the development of artificial intelligence. The researchers stress that the use of Big Data 'generates a whole set of legal and ethical issues, particularly regarding the limits of using personal data' [Kharitonova Yu.S., Savina V.S., 2020: 539]. In the light of the above we believe that, from the digital economy perspective, digital security — particularly that of LegalTech resources — directly affects economic agents' activity in the consumer segment, business environment, and public administration. Digital vulnerability makes the use of digital resources and technology less efficient.

[28] For details see: *Pilot Project on a Citizen's Digital Profile* (an experiment to last till 31 December 2022) — Resolution No. 710 of the Government of the Russian Federation 'On Holding an Experiment to Improve the Quality and Coherence of Data Stored in State Information Resources' dated 03 June 2019 (as amended on 17 August 2021) // SPS Consultant Plus.

Foreign authors also raise this problem. E.g., authors in the U.S. justify the need to observe certain requirements as Big Data is employed to provide legal and other services using LegalTech tools [Davis J., 2016: 1]; and to respect legal ethics in respect of consumers where advertising techniques use large volumes of information [Katsuya Endo S., 2021: 107–157]; a similar position is voiced by a Spanish author [Navarro S.N., 2020].

The above makes it possible to identify the following LegalTech features:

In doctrine and practice, a widespread understanding is that LegalTech is a highly professional set of digital media for legal practitioners. In this vein, the following risky trends have been identified: artificial intelligence has been substituting professional lawyers and some activities have been transforming; the development of 'machine-readable law' necessitates a stock-taking of law's conceptual framework, with due regard to the conservative nature of law and a certain degree of subjectivity in application of law; alternatively, LegalTech is understood as a digital toolkit for a broad range of economic agents. The LegalTech application areas include public administration, justice, notarial system, business and ordinary civil commerce. There is an obvious need to form a 'platform law.' The use of Big Data shows vulnerability of entities.

In general, we are deeply convinced that LegalTech in a broad sense is a part of digital economy that promotes the implementation of our national goals, objectives and development programmes.

3. LegalTech as an Instrument for Regulating Individuals' Economic Activities

Law has a huge potential for adopting digitalisation tools. As shown above, in terms of digitalisation LegalTech is a digital technology toolkit used by a broad range of actors. Proceeding from this understanding, LegalTech should also be regarded as a means of legal regulation of economic agents.

It is generally known that 'legal regulation is normative and institutional influence on social relations that uses a system of legal means in order to arrange, safeguard, and develop them in line with society's needs.' S.S. Alekseyev understood the legal means to include law rules; legal relations; subjective rights and legal duties; and acts of the performance of rights and duties [Alekseyev S.S., 1995: 209–216].

Proceeding from the established understanding of legal regulation of social relations, we should regard LegalTech as one of the digital means in the mechanism of legal regulation compounded by digitalisation. LegalTech is seen as a digitalised form or law rules, legal relations and acts of the performance of rights and duties. These, in turn, exert a legal influence on social relations. Let us examine the impact of LegalTech on individuals' economic activities in more detail.

First of all, we should note that economic activities are a broad concept basically enshrined in the Constitution of the Russian Federation[29]. According to its Article 34, 'everyone shall have the right to a free use of his abilities and property for entrepreneurial and economic activities not prohibited by law.'

'Economic rights are an integral part of the legal status of a citizen as an agent of economic or entrepreneurial activities, and of other economic agents' [Gubin Ye.P., 2021: 4].

In our opinion, economic activities are conducted in such forms as work activities, entrepreneurial activities, professional activities and, lately, self-employment as narrowly defined under the special taxation regime 'Professional Income Tax.'[30]

We should recall that Russia's above-mentioned development programmes and strategies prioritise the creation of favourable conditions for decent work and successful business, including self-employment, and the development of digital transformation. All of that is sure to concern civil commerce, financial technology, and justice.

In the said context, we should stress that 'the economic sphere is essential to society and requires control in various ways. These include a legal regulation mechanism that means forming a high legal consciousness among economic agents, their statuses and interaction regimes, and also using incentives and liability measures' [Tikhomirov Yu.A., Talapina E.V., 2021: 6].

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[29] Constitution of the Russian Federation. Approved at National Vote of 12 December 1993 with amendments approved at National Vote of 01 July 2020). Available at: URL: http://www.pravo.gov.ru (accessed: 04.07. 2020)

[30] Self-employed natural persons are those who are either not registered as individual entrepreneurs or have such status, and receive an aggregate annual income of not more than RUB 2.4 million from certain activities (Federal Law No. 422-FZ "'On Holding an Experiment to Establish a Special Taxation Regime, 'Professional Income Tax'» dated 27 November 2018 // SPS Consultant Plus.

The legal regulation of the activities of economic agents also requires legal mechanisms converted into digital form. So, LegalTech is a part of legal regulation of economic relations in this case.

According to the online edition of *Rossiyskaya Gazeta*, the tax authorities and the public sector's leaders in adopting LegalTech, and 'the State, as well as business, is working to improve its legal services and taking an active part in their automation and digitalisation… The government authorities are taking the lead in the development of legal technology in Russia.'[31]

Certainly, the area of LegalTech application in a digital economy is broad. We believe that, in the context of the legal regulation of individuals' economic activities, it is represented by digital information resources such as the Federal Tax Service website, *Moy Biznes* platform, *Moy Nalog* electronic application, etc.

As regards the theory of the means/methods of legal regulation (influence, permission, obligation, and prohibition) and from the instrumental/legal and functional perspective, we can identify the following special functions of LegalTech:

Firstly, LegalTech influences individuals by providing a large volume of legal information in digital (electronic) form. That manifests itself in the following aspects:

First of all, LegalTech, as an information source, serves to improve people's legal literacy. Here it is preceded by people's general digital literacy (including information, computer, and media literacy) valued as 'an important factor in the achievement of one's life goals and improvement of people's quality of life, which ultimately impacts the digital economy' [Baymuratova L.R., Dolgova O.A. et al., 2018: 5–6]. We believe improvement of people's legal literacy in digital terms helps make their activities more efficient.

LegalTech guides individuals' choice of a legal regime for their economic activities: non-incorporated entrepreneur, professional worker, self-employed (under the *Professional Income Tax* special taxation regime), or an employee. This choice is made as LegalTech provides legal information: a list of regulatory acts that establish the types, forms, areas, and conditions of individuals' economic activities.

[31] FTS, Russia's Leading Public Implementor of LegalTech. Available at: URL: https://rg.ru/2020/10/09/fns-lidiruet-v-gossektore-rf-po-vnedreniiu-LegalTech.html (accessed: 13.04.2022) (in Russ.)

LegalTech serves to encourage the performance of one's constitutional duty to pay taxes on the income received. Regarding this aspect, L.N. Berg rightly notes that 'information moves the world and guides human behaviour. The social variety of information, political and legal, coming from the government, has a special effect on society'. The researcher shows conclusively that legal information has legal influence on actors. 'The significance and role of the legal influence are vividly expressed precisely in the fact that legal information, e.g. contained in the text of a law rule, becomes an efficient force that guides and streamlines human behaviour after it is brought home to the person' [Berg L.N., 2021: 212–213].

The above is more than relevant and applicable to self-employed persons' economical activities in their narrow sense, under the *Professional Income Tax* special taxation regime. The close attention given to this category of persons is attributed to the fact that they belonged to the shadow sector for a long time because they were involved income-generating activities but lacked the status of individual entrepreneurs and did not carry out their constitutional obligation to pay taxes. The taxation conditions are now quite favourable for such persons, as their tax rates are quite beneficial (4% or 6%). This attractive regime is complemented by various incentives, such as a clear and simple registration and tax deduction procedure. This aspect hinges on the following function of LegalTech.

Secondly, LegalTech acts as an instrument of legal regulation of economic activities as it simplifies state registration of economic agents. This is especially relevant for self-employed workers. Simplified registration is a product and a tool of digital transformation of law.

Thirdly, LegalTech acts as an instrument of state control in legal regulation of economic activities. A streamlined and automated mechanism based on artificial intelligence and Big Data helps raise the efficiency of state control. This, in turn, is intended to 'encourage proper behaviour' of taxpayers engaging in economic activities, particularly individuals. According to S.A. Agamagomedova, who studies the axiological aspects of state control, 'control and supervisory' mechanisms are 'potentially capable of stimulating the activities under their control… This refers to the level of individuals' and organisations' interaction with the authorities whereby its outcome motivates the agents to develop their activities and to have a certain attitude to the legally protected values — to ultimately find proper behaviour beneficial and comfortable' [Agamagomedova S.A., 2021: 48]. With respect to its state control aspects, we believe LegalTech to be indis-

pensable and to have a great potential — provided that economic agents' Big Data is safely used.

LegalTech can thus be described as a modern digital instrument for legal regulation of economic activities that works through the relations between agents and state / municipal authorities as regards individuals' legal literacy, registration of their activities, reporting and discharge of their duty to pay taxes, and state control.

The sense and meaning of LegalTech are well explained by its digital functionality: electronic (digital) document management, and an automated mechanism for registering agents and processing reports and applications. These enable LegalTech to improve the provision of state and municipal services, detection of irregularities, and application of control measures.

As regards private and public interests in the legal regulation of economic activities, LegalTech is obviously intended to develop the institutions that serve the interests of all law subjects involved in economic processes. E.g., private interests are met by such LegalTech features as the agents' awareness (legal literacy), mechanisms that motivate the discharge of duties under certain legal regimes of economic activities, saving money and labour, and digital contractual forms of interaction. Public interest is met by such LegalTech functions as automated state registration of economic agents, automated reporting, and transparent control.

Conclusion

Digital economy is economic agents' activities using digital (electronic/virtual) methods and instruments (technologies) for the production, exchange, consumption, and sale of tangible and intangible (including digital) objects and resources on the basis of digital data (information) and in digital space (digital electronic platforms and services) using digital means of legal regulation of economic relations. Digital economy is a system of components that include a set of digital information technologies based on artificial intelligence and Big Data. For legal regulation of digital economy there exist LegalTech tools (law/legal technology).

A stance widely shared by researchers and practitioners is to understand LegalTech as a highly professional set of digital media for legal practitioners. At the same time, we argue for an expansive interpretation of Le-

galTech as a legal toolkit for a broad range of users involved in economic relations.

Our study has identified trends and risks arising from the implementation and use of LegalTech. The trends include the following notable points:

the spread of artificial intelligence favours the replacement of professional lawyers with robots for some routine processes. On the other hand, new IT-based niches appear;

machine-readable law may potentially develop, provided that law's conceptual framework undergoes 'stock-taking' and adaptation;

there is a clear need to create 'platform law' rules for legal regulation of economic activities.

The main risk posed by the use of LegalTech Tools is large-scale use of Big Data, possibly leading to invasions of citizens' privacy and unauthorised data use. So, we conclude that vulnerability in a digital environment discourages the use of LegalTech resources.

Studies of LegalTech resources used in various areas of economic activities, both private and public, suggest that LegalTech is a component of digital economy that serves a broad range of agents involved in economic relations.

LegalTech is a modern digital instrument for legal regulation of economic activities, including activities of individuals, that works through the relations between agents and state/municipal authorities. In this aspect, on the basis of the classical understanding of legal tools in the legal regulation mechanism and using an instrumental legal approach, Legal Tech plays the following roles for economic agents, including:

a resource for raising legal and general awareness;

a guide to legal information that shapes choices of legal regimes for economic activities;

an incentive for the performance of contractual obligations and fiscal obligations and for proper behaviour in general;

a means of public control over economic agents' activities.

Summing up, we have reasons confidently conclude that LegalTech, as a current trend and challenge, demonstrates successful implementation of the state's priority policies, both economic and social. LegalTech acts as a

component of digital economy and a means for legal regulation of individuals' economic activities.

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Digitization of Rulemaking Activities in the Context of Information Society

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Abstract

Digital technologies at present days increasingly permeate all human activities across the board, thus resulting in higher labor productivity and emergence of the new capabilities in science and technology spheres. In the information society standards they help to shape that are becoming a new reality. Meanwhile, the law and rulemaking activities are more latent compared to economic and other activities of society. Upholding social stability and preventing by virtue of its static nature insignificant, transitory changes of relationships is a function of law. However, rulemaking activities, like all activities of the state, are on the move along with the development of science and technology. In analyzing and adopting the best digitization practices in specific branches, legislative authorities at present days introduce digital technologies into the regulatory drafting process. The paper analyzes the R&D for digital transformation of legislative activities in order to propose an algorithm for a phased introduction of digital technologies into the work of legislative authorities.

Keywords

digital environment, legislative technologies, information society, digital age, rulemaking, social governance, legal implications.

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Background

A transition to information society emphasizes the increasing role of information to become a resource of its own, with access to information recognized as a universal right. "The information society will change the traditional paradigms in all spheres of life such as social, educational, cultural, axiological" [Gassieva K.M., 2017: 9].

Contemporary studies show that the idea of information society has penetrated human activities across the board such as sociology [Lupanov V.N., 2001: 40], social [Satokhina N., Razmetaeva Yu., 2021] and demographic processes [Bagirova E.M., 2020: 33], bibliography [Sadigova S.A., 2021: 7], etc. Meanwhile, the introduction of information technologies is also fraught with new risks, with the problems of data security [Mitrou L., 2017] and neo-terrorism [Sokolova A.A., 2021: 26] high on the public agenda. Researchers believe that information technologies as a field extend beyond national interests of particular countries. "New technologies can be used to monitor the compliance with and prevent abuse of international law. Advanced computing and robotic systems are capable of collecting and processing much more data than man ever could. They can be used to document and analyze the data to identify the actual patterns leading to a possible abuse of international law" [Tikhomirov Yu.A. et al., 2021:11].

The emergence of information society affects not only social relationships but man himself, "the primary quality now being the ability not just to learn but re-learn quickly and efficiently to stay abreast with flows of information" [Gassieva K.M., 2017: 9]. That is, the priority is for the ability to quickly absorb information across various areas of human activity. According to some authors, the digitization progress may cause qualitative changes in human capabilities through a radical technological transformation [Chubukova O.Yu., 2018: 47]. One has to subscribe to Professor D.A. Pashentsev's opinion that "digitization is a factor of powerful impact on man which changes the human thinking model as such by affecting many of its key parameters" [Pashentsev D.A., 2019: 17].

Although jurisprudence does not rank high among the main lines of advance of information society [Kalinkina N. N., 2010: 494–499], the law largely provides a basis for the emergence of social relationships, with free access to information on legal rules and provisions being undoubtedly a standard of information society.

It is legal standards that shape the relationships in economic, cultural and social areas[1]. The law is a brickwork of social development which in particular supports the digitization and progress towards an information society. The law has a major impact on the process of digitization while digitization affects regulation and its forms and legal awareness of individuals [Tikhomirov Yu.A. et al., 2021: 6]. Thus, the law is both the organizing source and an object of digitization inseparable from the process of technological change transforming human activities.

1. The concept of rulemaking and rulemaking process

The law as a social regulator has been embedded in the mechanism of modern rule-of-law states since the world got over the Middle Ages regulated primarily by the religion and morals. The law shifts its focus depending on the association with a particular school of legal thought. For instance, in the normative school of thought rules are created by legislator, while in legal realism, by judges. In this country, social relationships are primarily governed by regulations are outcome of legislative process.

The activities to establish general rules of conduct, that is, legal provisions, are called rulemaking or rulemaking activity. Its content is often defined as a function or form of activity, or a major feature of the state since of many political entities it is only the state that will issue ordinances binding on the country's entire population via its competent authorities.

A study of scholarly literature allows to identify several groups of researchers with different views on the said question. As used in theoretical studies, the terms that define activities of drafting and adopting regulations and provisions are ambiguous for lack of consensus among the academia on the content and correlation of the terminology in question. These activities are most often defined as rulemaking or lawmaking or as rulemaking/lawmaking activities.

[1] Collected Laws of the Russian Federation. 2017. No. 20. Art. 2901.

The first group, while discussing rulemaking, its content, structure, mechanisms, argues that the use of this term in scholarly discourse is nor reasonable. They define rulemaking as the activity to "draft legal provisions or recognize the rules of conduct existing in society as lawful" [Albov A.P., 2022: 16]. Moreover, they specify that since the term *rulemaking* fails to adequately reflect the creation of social regulators (morals, law, religion etc.) by being focused on the rules, there is no sense in using it. Therefore, the content underlying rulemaking is wider than the term itself.

The second group, while using the terms *lawmaking* and *lawmaking activities*, does not use the term *rulemaking* at all [Pigolkin A.S., Golovastikova A.N., Dmitriev Yu.A., 2020: 358–361]; [Babaev V.K. et al., 2020: 323–324]; [Lazarev V. V., Lipen S.V. et al., 2020: 280–281] since they attach no independent meaning to it.

The third group, in actively using the terms *rulemaking* and *rulemaking activity*, argues that rulemaking is the starting point and the primary component of a legal regulatory mechanism which takes the form of strictly regulated activities of mainly public authorities/officers. They conceive rulemaking as "a specific form of regulatory activity to develop, specify, amend or abolish legal provisions with the purpose of harmonizing the existing or creating new relationships in society". Moreover, the concept of rulemaking is wider than that of lawmaking since it involves the adoption of regulations not just in the form of laws but also referendums to be passed by public/municipal authorities and their officers, as well as the conclusion of standard-setting agreements/contracts. Over the last few years, the academia has supported the idea to recognize the system of scholarly knowledge on rulemaking, its types, rules, principles, legal techniques as a new branch of science to be called *normography* [Arzamasov Yu.G., 2020: 10, 31, 35]. As an applied science, normography will study various drafting technologies, theoretical issues and current problems of rulemaking.

The fourth group is revealed by the primary analysis of legal literature since the majority of works on rulemaking is focused on specific rulemaking entities such as specific agencies, departments, municipalities etc. In this case, rulemaking is defined as an activity to draft, amend or abolish all regulations except laws. That is, regarding the correlation between rulemaking and lawmaking, these two terms mean different forms of activities covered by the concept of legislation. However, rulemaking does not incorporate lawmaking.

Thus, this group does not assume the terms *rulemaking* and *legislation* to be equivalent. They argue that the latter has a wider meaning compared to the former. The advocates of this approach define legislation as "the general process of adopting any kind of instrument while rulemaking concerns just regulations" [Moskalkova T.N., Chernikov V.V., 2014: 50]. Judging from the said definition, one may conclude that "legislation has a wider content and contains the activities such as: judicial and case-by-case legislation, contractual legislation, legislation by local governments, legislation proper etc. The advocates of this approach do not equalize rulemaking and rulemaking activity either. They argue that the rulemaking activity is a more general concept that involves the drafting process. Based on the said approach, they also distinguish the range of the parties involved. While rulemaking agents will include, in their view, bodies and officers who adopt regulations, the parties to the rulemaking process will include drafters but not the adopting entity, experts and other individuals involved. In Russia, the rulemaking entities are: the President of Russian Federation; the Federal Assembly; the Government of Russia; federal executive authorities; senior officers, legislative and (the highest) executive authorities in constituent territories of Russia; other public authorities. Therefore, rulemaking entities are not always those empowered to propose laws.

There is yet another view on the correlation between the concepts under study, whereby, according to researchers, the content of rulemaking dominates over that of legislation. In principle, they argue that rulemaking describes not only the activities of public authorities to adopt legal provisions but also the process of social standard-setting by entities such as civil society associations, political parties and religious organizations. In support of this conclusion, they identify the social and legal aspects of rulemaking: legislative rulemaking or legislation as a component of rulemaking in a wider sense; creation of new and development of the existing social regulatory principles by society (rulemaking in a narrow sense) [Bakulina L.T., 2017: 43–52].

However, it would be fair to mention I.S. Samoschenko as one of the first Soviet researchers to raise this issue. He argued that legislation was the final stage of the legislative process [Samoschenko I.S., 1956: 86]. This approach dividing the contents of rulemaking and legislation based on the difference between law and rule is now solidly established in jurisprudence. This idea was developed by V.S. Nersesyants who argued that "the objective process of legislation (formalization of law) should not be confused with the formal process of lawmaking (official expression and formula-

tion of legal provisions). Legislation is the process of the actual (objective and real) emergence and recognition of particular social relationships and links between people and their associations as "normal" and "legitimate" (from a perspective of prevailing real-life relationships in the given society and corresponding ideas, values etc.), the process of social and historical shaping of common criteria, rules, scales, models, samples and standards of this "normality" and "legitimacy", to be finally embodied in the relevant standards of behavior, action and relationships between people" [Nersesyants V.S., 1983: 344–345].

Contemporary researchers argue, following the logic of differentiation between the terms *law* and *rule*, that "any rulemaking is not legislation while the latter will anyway include the rulemaking process" [Kaytaeva Kh.I., 2010: 55–71]. In this case, rulemaking is believed to be only the external process of publication of regulations devoid of its content. This literally means that, while the adoption of non-regulations assumes rulemaking, it is not legislation.

Thus, the content of rulemaking changes depending on how it is understood. In this paper, we will stick to the idea that rulemaking activities are a specific type of legislative activities to draft, amend or abolish regulations of any kind whatsoever. From a structural point of view, we will rely on the approach whereby the rulemaking activities involve the following conventional stages: drafting, approval, examination, adoption and publication of regulations.

1.1. Principles of rulemaking activities

A variety of opinions on the content of the term *rulemaking* does not in any way affect the recognition of its prominent regulatory role. A vast majority of researchers agree that rulemaking is the initial stage of regulation since it purports to create legal instruments to encourage global harmonization of social relationships in the longer term, a process which cannot be arbitrary and chaotic since it should follow clearly established rules and stick to the principles developed by science and practice.

Rulemaking has the following characteristic features:

a type of legal activities to shape legal policies of the state;

activities of public nature since exercised primarily by public/municipal bodies and officers;

creative and intellectual activities since related to the study/analysis of processes and phenomena taking place in society, identification of a need in regulation of social relationships, shaping legal provisions as such, and monitoring the implementation of legal instruments to be adopted etc.;

procedural activities exercised formally and involving a number of stages. The regulatory process is governed by law, with the competent authorities, issues to be regulated and types of regulations determined;

phased activity involving certain phases".

Any legal and rulemaking activity is not an exception and is carried out in line with certain principles understood as fundamental concepts and basic premises at the heart of legal instruments to be drafted.

A study of doctrine reveals a multitude of approaches to the understanding of rulemaking principles and their systems, with the core approaches recognized by the authors being professionalism, openness, democracy, scientific rigor, legitimacy and technical perfection.

Legitimacy of the rulemaking process means it is carried out on the basis and in compliance with the Constitution and public laws. A regulation of higher legal force has precedence over that of lower legal force. All legal instruments (including laws) adopted in a country should not be contrary to provisions of the Constitution as a directly applicable legal instrument of prevailing legal effect. All public authorities and their officers engaged in rulemaking should operate within their competence and outlined limits while observing the procedure established for the adoption of relevant instruments.

Legitimacy is ensured by a wide range of the parties to the rulemaking process, legal examination of draft regulations by various government agencies, public review by civil society, legal monitoring of the outcomes of rulemaking activities, as well as by the quality and effectiveness of the adopted regulations.

The democratic principle is the nation's involvement in rulemaking activities via deputies as representatives of the people. The direct participation is ensured by the adoption of legal instruments by a popular vote at referendums. Moreover, this kind of cooperation is exercised via civil society institutions cooperate with public authorities in the regulatory drafting process. They are called upon to review the need in regulation, identify and analyze regulatory and implementation problems, draft the texts of draft

regulations, make proposals and remarks on their content, discuss and examine them. Draft regulations are published in official bulletins and placed at web portals for public discussion. Democratic institutions, such as public hearings, discussions and reviews, are enshrined in the Russian law.

The principle of academic rigor means that opinions of the academia and digital technologies should support the development of laws and other legal instruments. In this regard, some researchers propose to develop a fundamental theory of rulemaking and development concepts of the branches of law [Khabrieva T.Ya., Tikhomirov Yu.A., 2014]. However, this principle often receives lip service and fails to be applied in practice, only to undermine the quality of regulations. For a better application of this principle, it is proposed to collect and study the information relevant for regulation, and hire consulting theoreticians from among the specialists in rulemaking to staff the legal department.

Professionalism means that regulatory drafting is the business of professionals to include not only those whose duties involve drafting work but also hired experts and, in particular, legal scholars, legal practitioners, law enforcement officers, economists, political scientists etc. A high-quality and effective regulation is not possible to draft unless a wide range of stakeholders is involved. To regulate social relationships, a regulation should be worked out from both a theoretical and practical perspective.

Openness means rulemaking activities of public authorities to be communicated to the public at large. This principle is enshrined in part 3, Article 15 of the Russian Constitution whereby laws are to be officially published. Unpublished laws will not apply. Regulations concerning civil and human rights, liberties and duties will not apply unless officially published for general awareness. Legal instruments adopted by the federal authorities will be published in the *Russian Gazette*, *Collected Laws of the Russian Federation*, *Parliamentary Gazette* and the official web-portal for legal information at *www.pravo.gov.ru*.

The principle of technical perfection means a need to observe the rules of legal rulemaking techniques and to take into account the logic of law, wording accuracy, terminological certainty, legal language clarity etc. The observance of this principle will allow to avoid the shortcomings such as regulatory incompleteness, inaccuracy, ambiguity and divergence.

Apart from the above, the scholarly literature identifies the following principles:

conceptual/terminological certainty, adequate justification and logical balance of legal provisions, enforceability of provisions;

fairness;

diligence, thoroughness of legal drafting etc.

The observance of these principles is extremely important both for rulemaking and law and order as a whole.

It is worth noting that the general principles have different interpretations in the process of rulemaking activities in constituent territories of Russia. For example, in the Republic of Crimea, the principle of legitimacy is enshrined in Article 7 of the Constitution whereby public authorities and other public agencies, local governments, organizations, civil society associations, officers and individuals shall observe the provisions of the Constitution of the Republic of Crimea, laws and other regulations of the Republic adopted as part of its mandate (part 3). In accordance with Article 57 of the Constitution, laws and other regulations of the Republic of Crimea cannot be contrary to constitutional laws of the Russian Federation and federal laws adopted as part of the jurisdiction of the Russian Federation and matters under joint jurisdiction. If provisions of the said regulations are contrary to those of constitutional and federal laws, the latter shall prevail (part 3). In case of a conflict between a federal law and a Crimean regulation adopted outside the jurisdiction of the Russian Federation and the joint jurisdiction of the Russian Federation and constituent territories, the Crimean regulation shall prevail (part 4).

As applied to the regional process, the democratic principle assumes the regional population's involvement in rulemaking. It is crucial to have the regional civil society institutions involved. A simple replication of regulations adopted by other constituent territories is not acceptable.

The principle of openness is also enshrined in regional constitutions and statutes. For instance, part 2, Article 7 of the Constitution of the Republic of Crimea says: "laws of the Republic of Crimea shall be officially published. Unpublished laws shall not apply. Regulation of the Republic of Crimea concerning civil and human rights, liberties and duties shall not apply unless published for general awareness".

Apart from the general principles characteristic of rulemaking activities as such, it would be logical to distinguish those used in constituent territories of Russia. Thus, A.N. Artamonov has identified the principles

of observing the overall legal framework and of supporting full empowerment and protecting civil rights through local laws to be adopted. Despite a clear regulatory subordination and possible procedures for intervention in case of conflict, the author has identified unresolved problems that may undermine the overall legal framework of the Russian Federation including a lack of rigorous mechanisms for overcoming the situations of conflict and a lack of procedures for removing legal gaps (especially at the regulatory level) [Artamonov A.N., 2011]. The observance of these principles will serve to avoid legal conflicts and gaps.

According to Ya.V. Gaivoronskaya, the differentiation between legislative mandates and competences, coherence and consistency of regional regulations with federal laws, and interrelations between lawmaking and practice are part of the lawmaking principles in constituent territories [Gaivoronskaya Ya.V., 2015: 126].

The principle of the differentiation of legislative mandates/competences means lawmakers should act within their competence in adopting regulations and should not infringe on the competence of other bodies.

Thus, under part 3, Article 5 of the Russian Constitution, the federal structure of Russia is based, in particular, on the delineation of mandates/competences between the federal authorities and those of constituent territories.

The principle of regulatory coherence and consistency between federal laws and regional regulations means that regulations to be adopted by constituent territories on matters of joint (federal and regional) jurisdiction cannot be contrary to the Russian Constitution and federal laws while those adopted within regional mandates cannot be contrary to regional constitutions/statutes.

1.2. Functions of rulemaking activities

On the one hand, rulemaking could be regarded as a function of state in general and individual agents in particular while, on the other hand, rulemaking itself has certain functions.

The authors of a normography manual edited by Yu.G. Arzamasov believe the regulatory drafting to be the main function of rulemaking while abolition/amendment of the existing regulations is auxiliary [Arzamasov Yu.G. et al., 2020: 35–36].

In a manual edited by V.K. Babaev, the lawmaking functions include the legal reform: publication of new regulations; abolition/abrogation of obsolete provisions; removal of legal gaps [Babaev V.K. et al., 2020: 328].

V.M. Gorshenev identified the following lawmaking functions: legal reform (publication of new and abolition of obsolete provisions contrary to economic and social development, or authorization of the existing provisions etc); removal of legal gaps (including specifying and detailing the published provisions); harmonization (standardization of regulations, review of regulatory material, systematization of law) [Gorshenev V.M., 1985: 38].

To sum up, the following rulemaking functions can be distinguished. The main function is regulatory drafting or legal reform sometimes called novelization which means the adoption of new legal provisions [Smolensky M.B., 2015: 44].

The additional/auxiliary functions include:

abolition/abrogation of obsolete provisions;

removal of legal gaps;

detailing/specification, especially when regulations are adopted in furtherance of legal provisions;

systematization of law to bring order and form to its content.

The said functions allow to not only develop new regulations but to improve the national law and harmonize the legal system.

2. Digitization of rulemaking activities

An analysis of current changes shows that the Russian Federation is taking much effort to achieve the standards of information society, with information openness of public authorities growing as more public data systems become available [Kozyreva A.A., 2017: 131].

The digitization and emergence of digital economy in Russia are now regulated primarily by strategic planning documents (national programmes/projects etc.), with minimum changes affecting civil, financial and other branches of law. There have been some attempts to adopt a Digital Code of Russia [Iliushenko R., Bashelkhanov I., 2018]. At the same time, once AI

robots have a legal capacity in the medium term, as some experts believe, they will be recognized as parties to legal relationships and be legally liable on their own [Laptev V.A., 2019: 99], something that will undoubtedly require to considerably reinvent the existing regulation. In this regard, individual authors suggest to introduce a self-regulated institution in the area of robotics in order to develop standards and codes of conduct binding on owners of robotic agents and robotic agents proper [Artabekov A., Yastrebov O., 2018: 781].

Rulemaking cannot stay away from global digitization processes taking place in the state and society. In welcoming the digital change, A.V. Minbaleev points out that "AI technologies are quite effectively used worldwide in rulemaking and regulatory drafting processes, often in regulatory redrafting to reflect the amendments made by instruments of higher legal effect", see: [Pashentsev D.A., 2019: 141].

Meanwhile, this change is fraught with risks to be accounted for in developing new rulemaking mechanisms. The digitization of rulemaking activities and attempts of transition to "soft law" as a more dynamic regulatory practice imply certain risks. Thus, as MV. Zaloilo writes, "promoting the principles and criteria enshrined in federal law, primarily in regulations and "soft law" instruments, can disrupt the rules whereby legal provisions of higher legal effect are detailed by those of lower legal effect, handicap the delineation of mandates between the federation and constituent territories, broaden the discretionary power of constituent territories which draft the said non-regulatory instruments, increase the risk of legal uncertainty, complicate the implementation mechanism of "soft law" instruments and liability for misuse/abuse due to enforcement failure, and create a threat of violation of civil and human rights and liberties which, pursuant to part 3, Article 55 of the Russian Constitution, can be restricted only by law". This may also tip the balance between the legislative and executive branches in favor of the latter as legislative bodies will adopt federal laws containing declaratory instructions to be interpreted and specified by the federal executive authorities in the form of guidance. According to M.V. Zaloilo, "potential use of AI to identify incomplete and fragmented regulations among those existing and pending seems a promising step to considerably simplify this process. In this regard, it will be useful to create an official database of existing and pending regulations and their implementation" [Zaloilo M.V., 2020: 34, 44]. Other authors support this idea [Churakov V.D., Pogrebnoy E.O., Khachatryan G.A., 2021: 107–159].

A full-fledged introduction of digital technologies to rulemaking activities will be constrained by a number of technological and legal factors. "Legal restrictions on the use of AI and big data technologies in rulemaking, according to researchers, will be needed to:

avoid the duplication of electronic and hard copies in regulatory drafting;

provide for an automated cross-machine information exchange between public data systems in regulatory drafting;

envisage the use of the said digital technologies as part of regulatory planning and forecasting by the public authorities, and as part of regulatory drafting" [Zaloilo M.V., 2020].

Apparently, the said constraints are organizational and can be removed through an evolutionary transformation of the existing regulation towards the introduction of digital technologies.

Technological constraints can only be removed in an evolutionary way through research and development.

Structurally, rulemaking activities are complex and characterized, in particular, by a combination of organizational and meaningful components.

The technological stages are:

collection of regulatory information in support of the drafting process;

conceptual development of a regulation to be drafted;

preparation and amendment of a draft regulation;

preparation of supporting documents etc. [Vlasenko N.A., 2011: 14].

Like any complex activity involving a great many different agents, rulemaking should pass through stages of the digital change. Only this approach will ensure its smooth operation at the stage of adjustment.

At the first stage of digitization, an electronic communication system could be introduced between the parties to rulemaking activities. Given multiple stages and a large number of the parties, the introduction of a communication system will allow to reduce organizational and time costs arising in the process of regulatory drafting, and will enable the parties to focus on the meaningful part of their work. A centralized electronic communication system will ensure automatic sharing of drafts between the parties, collection of their comments and proposals, amendment and

discussion of the proposed drafts. All amendments to the draft will be instantly visible to stakeholders. Since the list of those involved in a rulemaking project will change depending on a particular stage, it would be useful to make sure the previously prepared documents can be shared with new participants.

Thus, the system will accumulate all information and documents relevant to the particular drafting process. Rapid sharing of meaningful information in the system should serve to reduce the formal part of workflow, ensure a focus on the meaningful aspect of information to be provided, and switch from letterhead-type information sharing to message exchange between identifiable users.

At later stages, the electronic document sharing could be extended to cover the adoption of regulations, to be signed as e-documents without a need to produce a hard copy.

The introduction of e-document sharing to rulemaking will raise the question of document security and accessibility. A loss of original digital regulations and their drafts is fraught with major legal implications. The problem may be solved by implementation of distributed ledger technologies. The latters let to ensure the security and protection of e-documents' contents. According to some researchers prognosis, the development of blockchain will result in major changes for the entire legal sector. "Such traditional institutions as notaries and registrars, banks and probably the state itself as the controlling authority will become redundant" [Barraud B., 2018: 48].

The introduction of AI will be the next stage in digitization of rulemaking.

At first, AI can be used to run different regulatory examinations. It can perform a primary analysis of draft regulations under a set of criteria relevant to the purpose of a specific type of examination. "A neural network can be used as part of the anti-corruption examination to identify corruption-prone aspects and to simulate the use of a particular regulation. A neural network can be trained to take into account possible political, economic, social, cultural and other factors which affect the quality and contents of a draft regulation" [Zaloilo M.V., 2020: 40].

The introduction of AI to rulemaking will allow to make legal simulations more effective. One has to accept Arzamasov's view that "both business and legal regulation models may prove ineffective in certain situa-

tions dues to unpredictability of the market and its specific participants" [Arzamasov Yu.G., 2019: 18]. At the same time, the introduction of digital technologies including machine learning will allow to develop increasingly complex regulatory simulation mechanisms to reduce the risk of legal error in adopting regulations.

As more advanced machine learning algorithms are available, AI could perform regulatory drafting assignments issued by man. Experiments of this kind are already going on at European parliaments [Fotios F., 2021: 621–633] and actively discussed in Russia, particularly, at the Institute of Law and Comparative Legal Studies under the Government of the Government of the Russian Federation[2].

With a capability to analyze the whole stock of available regulations in drafting a text, AI could diminish the fragmentation problem of the legal framework. Once a universal platform is used for regulatory drafting at all levels, it will be possible to reduce the negative effect of some factors responsible for fragmentation.

The regulatory duplication problem can be reduced in a similar way to get rid of duplicate federal law provisions in local laws and of duplicate statutory provisions in regulations which result in negative implications in the form of legislative inflation and devaluation of law.

Moreover, all requirements concerning legal, technical and meaningful aspects of regulations can be addressed already at the drafting stage to reduce the time spent on their preparation and adoption.

The introduction of digital technologies allows to focus on meaningful aspects of lawmaking activities. The only thing that will not change is that the final decision to adopt a provision is reserved to man as a holder of a unique set of psychological traits to critically assess the work performed by AI and the political, economic and social implications of regulation to be adopted.

At the next stage of progress in rulemaking, AI should be able to propose legal drafts for removing conflicts of law. Regulatory problems should be identified and relevant conclusions to amend the existing regulations made on the basis of big data. These may include legal precedents, specific instruments published by the authorities, legally binding actions etc. In

[2] Available at: URL: https://izak.ru/institute/pravovye-osnovy/pravovye-kommentarii/24780/ (accessed: 15.03.2022)

digitizing the governmental document flow, these data can be consolidated into datasets susceptible of an analysis by AI systems.

Conclusion

Thus, digital technologies can considerably help to the regulatory drafting by reducing the organizational and preparatory burden on rulemaking bodies and providing room for a quicker and deeper analysis of the legal framework.

Over the long term, one can expect a change in the structure of the existing stock of regulations, with researchers already aware of the fact that processes in the legal sector are blurring the lines between branches of law [Pashentsev D.A., 2019: 25]. The same is true for the form of regulations when a transition is made from highly formalized regulations to those sharing numerous meaningful connections, to regulatory datasets generated by digital systems at the operator's request to address a specific situation.

The current formalized part of contemporary legal provisions will become meta-data supporting the contents of specific legal provisions. As notes D. Howes, "Once accustomed to the visual convenience of e-texts with their specific features, users are finally ready to dismiss the rigid, mysterious format of ordinary legal texts as inaccessible and irrelevant" [Howes D., 2001: 49]. A single, multi-level, scalable, interconnected stock of regulations supported by the algorithms to identify linkages between provisions will allow to search for and analyze the needed legal information more efficiently by making regulations more available as information society gains momentum.

Digitization of rulemaking is a phased operation, with the introduction of AI as a downstream process. By using the big data analysis capability of AI, the rule-maker can quicker and clearer identify regulatory gaps, promptly respond to the emergence of new relationships, and take decisions on the basis of in-depth and comprehensive review.

However, one should be attentive to the arguments of those who believe that a legal system too dependent on big data will arbitrarily and undemocratically depart from fundamental values. The wider is the use of big data, the more they will imply and impose a sense of optimal and artificial imminence of legislative development.

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Graphic Language in Law

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Abstract

Language in this paper is understood as a system of signs of various physical nature, which serves cognitive and communicative functions in human thinking. Languages are formed naturally or created by man artificially for certain purposes. The graphic language as a class belongs to artificial language systems. Graphic language in law is not a unique phenomenon. The system of state symbols studied by heraldry is a variety of the graphical language, just as traffic signs and other signs in transport — water, sea, air, rail, pipeline. The military have a system of symbols of their own such as grade and branch insignia. Industrial signs and designs (for radiation, high tension, magnetic fields) is another example. This paper will attempt to disclose the concept of graphic language and to justify its role in law. The functions of the graphics language and the main types of schemes are considered. The main stages of the schematization process are shown. The author's point of view on the ratio of schematization and visualization, graphic concept and grapheme is expressed. Specific examples are used to demonstrate the possibilities of multi-layered visuals as one of the most promising contemporary varieties of schematization. According to the author, artificial intelligence and natural intelligence are complementary and should interact and mutually develop — co-develop. It means that not only machines should master various functions of human thinking but man equally needs to learn from machines in certain cases — in order to be able to form ontologies, synthesize algorithms, understand the language and operational logic of artificial intelligence. The graphic language, the one of drawings, schemes, graphs, which is quite abstract and formalized but at the same time understandable and proportionate to ordinary human thinking, could thus become a "bridge" between artificial and natural intelligence. From this point of view, there is obvious promise in the development and use of different types of graphic languages in law, as well as in other humanitarian areas of human activity.

Keywords

legal language, graphic language, graphic language functions, types of schematization, visualization.

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Background

The study of legal language[1] has always been considered a promising strand both in linguistics and jurisprudence which has noticeably gained in relevance over the last few years as artificial intelligence rapidly progressed in all spheres of life including law. Like many other academics, jurists need a language to communicate with AI systems to solve specific problems through their help.

We believe that AI and human intelligence are complementary and should interact and develop each other (co-develop). This means that, while machines are to learn from man and master different functions of human thinking, man also has to learn from machines in certain cases in order to at least understand the language and logic of artificial intelligence. In our opinion, the graphic language — the one of drawings, diagrams and charts — could bridge the gap between AI and human intelligence as it is fairly abstract and formalized while at the same time adequate to human thinking as we know it. From this point of view, the development and use of graphic language in law like in other arts and humanities hold an obvious promise.

A language means a system of symbols of various physical nature serving a cognitive and communicative function in process of human activities. Languages emerge naturally or are created artificially for purposes. Hence, natural ethnic and artificial languages such as formal, computer, sign language etc. can be distinguished. The graphic language as a class belongs to artificial language systems.

[1] As used in this paper, the term "law" covers not only legal provisions but also other realities of law such as legal relationships, jurisprudence, education, legal awareness, legal culture.

Body text

A closer scrutiny reveals that graphic language in law is not an altogether unique phenomenon. The system of state symbols studied by heraldry, a special branch of science, is a variety of the graphical language. Another system is road signs — and other signs for water, maritime, air, railway, pipeline transport — which make up a special graphic language. The military have a system of symbols of their own such as grade and branch insignia. Industrial signs and designs (for radiation, high tension, magnetic fields) is another example. Some research papers in legal literature discuss systems of signs and symbols and study their legal importance [Ten Yu.P., 2008]. This paper will attempt to justify the composition and functions of the graphic language in law as a variety of graphic language designed to solve research and analytical problems in jurisprudence.

The terms scheme and schematization have their origin in the Greek word *schema* (appearance, form). In literature a scheme means drawing which shows components of an item, process or product and connections between them with the help of conventional graphical designations. In a more general sense, a scheme is a general description or outline[2].

N. Yau, an American researcher, has observed in connection with the use of statistics: "Data could be rather frustrating and irritating, unless you know what you are looking for or understand what is there to look for in the first place. Otherwise they become a heap of numbers and words devoid of any sense except their explicit meaning. The profound sense of statistics and visualization is that it helps to see what is behind all this. Remember: data is a reflection of reality. It is not just a heap of numbers. This heap contains a lot of stories. It has a sense, truth and beauty. Like in real life, these stories might be at times simple and sincere, at times complex and metaphorical. Some are as if borrowed from a textbook. others read like a novel. How to tell this or another story depends on you, statisticians, programmers, designers, data processing specialists" [Yau N., 2013: 21].

Graphs, maps, tables, flow charts, diagrams, timelines are among visual aids in teaching jurisprudence and other humanities. They bring clarity and expression to texts and add a touch of modernity and respectability. Statistical software packages and PC applications abound with graphical forms virtually for every occasion. However, choosing the one which fits

[2] The Concise Russian Encyclopedia. Vol. 3. Moscow, 2003. P. 337 (in Russ.)

the matter to be studied and which is best for visualization is not that simple [Logunova O.S., 2015].

In the schematization process, the following stages can be distinguished:

The object of schematization is analyzed to identify its structural elements (features) to be represented in a scheme.

The relationships between these parts, elements, features are identified.

The language of schematization — a system of graphemes, symbols and images to adequately describe the item in question — is selected.

The type of schematization — associative, ontological objective, technico-organizational, procedural, methodological etc. (see further on) — is selected;

A scheme — graphical model — of an item, phenomenon, process is created using the selected language and type of schematization.

In philosophy, science analysis and in practical jurisprudence the language of schematization has a number of functions to be divided into general and specific one. While the first group of functions is proper of any language, the second is a feature of graphic languages including that of diagrams. We believe the first group to have the following functions:

Ontological function — a language will record, describe and name a reality. This function is sometimes called nominative as one of the purposes of a language is to give names to things of reality. In our view, this function has a wider content. Naming is just a sub-function in the context of a wider task of creating a picture of reality and shaping the specific ontology.

Cognitive function — a language will arrange and support thinking processes. It is stressed in literature that a language is a thinking medium [Kolshansky G.V., 2011: 15–31]; [Pesina S.A., 2016: 51–77] which is true for both natural and artificial languages including schemes. Schemes have the merit of allowing to keep a view of things which is extremely important when dealing with complex things. Schemes considerably expand the capability of human short-term memory while at the same time being a mnemotechnic tool, a means of packing information into long-term memory.

Like any other language, schemes perform a communicative function, that is, ensure communication and exchange of information between people and — over the last few years — between man and machines as well. The practice of teaching confirms that the use of diagrams and charts will

largely intensify the exchange of information and make it more efficient. There is a recorded experiment of teaching radio operators in 1970s when one group learned in a traditional way by studying text instructions and the other by using diagrams showing the operator's actions. The use of diagrams reduced the learning time by almost one half, decision-making time by 30 percent, and error rate by 15 percent [Bowman W., Venda V., 1971: 6].

As a means of communication, graphic languages have the advantage that no translation is required, as they are perceived almost identically by individuals with approximately the same level of development irrespective of linguistic and cultural environment.

Lastly, accumulation and storage of information are also a general function of graphic language. Information will be accumulated and stored not only in word descriptions but also in figures, diagrams and schematics. Moreover, the meaning of graphical images is much less subject to change with time than the meaning of words of a natural language. Thus, our knowledge of Leonardo da Vinci's creative genius largely comes from his drawings and schemes preserved exclusively thanks to the graphical language.

Apart from general functions, graphic languages have some specific ones.

Firstly, it is a function of generalization and abstraction which, being proper of other languages as well, is immanent to the graphic language. A scheme is not a picture of a thing. Its purpose is not just to describe a thing but to show its essence, identify the underlying features and, most importantly, help separate the necessary from the accidental and secondary [Zhukovsky V.I., Pivovarov P.S., 1998].

Secondly, the schematization will reveal the invisible by making it visible. Properties, relationships, essential features of a phenomenon are not evident since they are the result of our cognitive activities. The schematization will extract them from the depth of a phenomenon for a study, albeit in a conventional graphical form.

Thirdly, schemes are a simple and accessible means of graphical modeling. A scheme can be used as a model to identify an optimal structure of the thing, add new elements, relationships, connections, remove individual fragments and directly observe the outcome of these changes.

Fourthly, schemes are a perfect visualization tool, visual aid widely used in a variety of spheres such as governance, education, science, marketing, road traffic management, etc.

Depending on their purpose and graphic language specifics, schemes could be divided into a number of classes:

Associative schemes — a class of schemes representing a free, informal map of content related to a thing, problem or subject, the most obvious example being the so-called intelligent maps (connectivity maps, memory maps, association maps, mind maps) [Buzen T., 2005]; [Buzen T., Buzen B., 2008]; [Bekhterev S., 2011]; [Nast D., 2008]; [Sibbet D., 2013].

As the main advantage, intelligent maps are able to bring together a host of various phenomena, properties, relationships and facts. Figuratively speaking, they could be called a buffet of associations. While intelligent maps are effective for primary, prior review and analysis of phenomena, their omnivorous nature does not allow to use them for solving complex analytical problems.

Flow charts are probably the most widely used type of schematization. It can be asserted with a good deal of confidence they make up a majority of practically used schemes. With modest pictorial means (circles, rectangles, connection lines and, where possible, colour), flow charts allow to decompose a phenomenon into elements and to show basic relationships between them (parts vs. whole, sequence, subordination) as well as the stage of an ongoing process.

Ontology charts are a class of schemes which attempt to describe the reality as is, the examples being the atomic structure, DNA spiral, star chart etc. A class register with a list of students and the grades they have for each subject is also a kind of operating ontology being that of academic performance. Ontology charts are designed to identify the structure and functions of things and their dynamics, as well as to record the acquired knowledge and explain the observed phenomena.

Organizational charts reflect the arrangements in a certain activity area such as management of a sector, business, research or analytical study, the examples being document flow management charts, car assembly diagrams or business game plans which allow participants to get their bearings and find a place in a complex gaming environment. Organizational charts are among the most useful graphical tools for developing and implementing projects, programmes and plans.

Methodological schemes reflect the means of thinking and activities to be used to solve a specific problem. They rely on a special graphic language designed in philosophic methodology and, depending on the context, can

perform a variety of functions such as descriptive, ontological, project, organizational etc. [Zinchenko A. P., 2004].

A specific example of schematization is the legal regulation diagram widely used in scholarly and academic literature (Fig. 1). It is of ontology chart type since it reflects a general vision of legal reality. The word ontology derived from Latin (ontologia) and several other Greek words means a branch of philosophy dealing with the nature of being and the idea of reality *as is*. In attempting to observe the reality *as is*, we always look at it through a system of concepts and representations, that is, theoretical or conceptual *lens*. A regulatory mechanism represented in Fig. 1 claims to reflect the core structural elements through which the law affects social relationships. Hence, it shows legal provisions, legal facts and actual structures, enactments, legal relationships, exercise of rights and duties, legal awareness, as well as their functional interrelations.

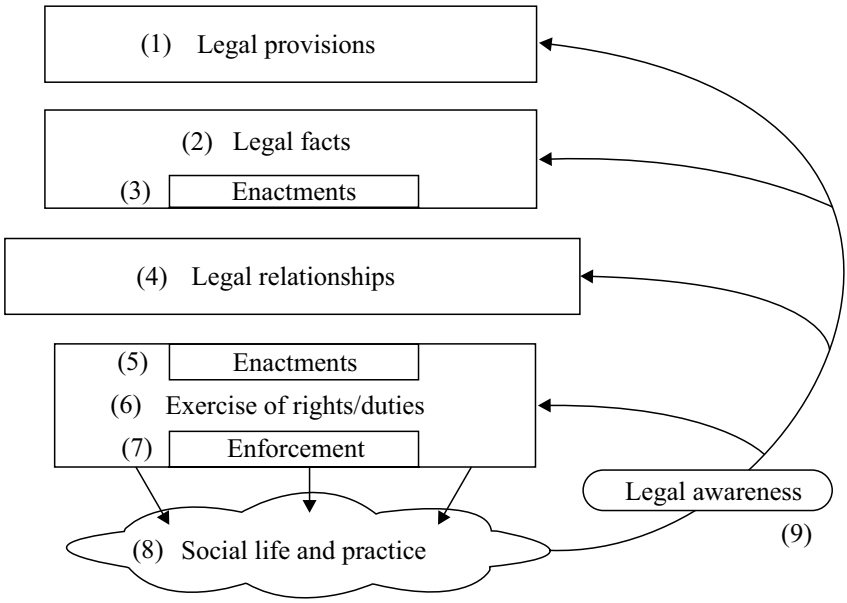

Fig 1. Regulatory mechanism

This diagram reflects the main elements of the legal regulatory mechanism and their interrelations.

Legal provisions: the root of regulation (in this model).

Facts (including components thereof) of legal importance. A legal fact, once reported, will trigger a legal provision, that is, activate it.

There are cases where facts will not suffice for legal relationships to arise: for example, an enactment is required for relationships of pension provision, public service, administrative and criminal liability, etc. By publishing a relevant enactment, the government will be involved in regulation for the second time at the level of exercise of legal provisions.

Legal relationship: a legal link arising on the basis of legal provisions between the parties to social relationships. Its distinctive feature is rights and duties of the parties and legal basis for their exercise.

Exercise of a right: another hub of the government's involvement in regulation of social relationships. Exercising a right is needed to resolve possible disputes between the parties to legal relationships (in respect of the existence of such legal relationships, existence of legal facts, amount of rights and duties and procedure for their exercise etc.).

Acts of exercise of rights and duties by the parties: exercise of rights, performance of duties, compliance with prohibitions.

Conclusive hub of the government's involvement in legal regulation: possible enforcement of duties (such as collecting debts, damages, fines, penalties; applying administrative or penal sanctions) and also possible use of legal remedies (restituting a property, home, business; securing the right to communication with children etc.).

Positive changes to social life triggered by adequate operation of the regulatory mechanism: final effect achieved by the government in establishing a legal provision.

Feedback from practice to all main elements of regulatory mechanism via legal awareness. It will tell whether the RM is effective and whether it needs to be amended/adjusted.

The diagram of the regulatory mechanism (RM) demonstrates the systemic interrelation between the elements of regulation. It allows to run an analysis of the RM, take steps to make it more efficient, and also identify *failures* when regulation does not achieve a positive outcome for this or another reason.

The legal practice also makes use of other types of schematization such as procedural, lifecycle, ideological schemes, scientific worldviews etc. "Making the schematization part of verbal communication, P. Mrdulyash wrote, will extinguish the ambiguity which complicates the understanding. Once a scheme is there, the subject matter will be rid of the superflu-

ous such as verbal polysemy, ambiguous terms. Schematics leave no wiggle room for interpretation of text or demonstration of purpose other than stated… A correct scheme contains only the crucial, essential elements and their linkages that, on the one hand, exhaustively define the content and, on the other hand, hide what is secondary. In this sense, a scheme will make the conversation dull but more exact. Figuratively (but not simplistically) speaking, a person drawing a schematic resembles a sculptor who cuts away the superfluous from the verbal block of a conversation" (Mrdulyash P., 2005: 41).

The expressions *schematism* and *schematic thinking* sometimes have a negative connotation as a feature of simplistic, primitive, dogmatic thinking unable to reflect the complex and contradictory reality in its entirety. Unfortunately, the Soviet social and political practices gave rise to a good many examples of ugly and dogmatic schematization. Authoritatively imposing dogmatic schemes on science, culture, ideology, education, labeling those who did not share them as enemies and renegades has done a colossal harm to the nation. However, no society is immune from relapses of authoritarian dogmatism. Hence, it should be made clear that the schematization is just a tool of legal thinking and, like with any tool, one should be aware of its limits beyond which its use is harmful rather than beneficial.

A distinction between schematization and visualization has to be made in the context of this paper. Visualization has multiple meanings: visual representation of an idea, concept, design in architecture; use of visual aids in education; display of internal organs in a picture, photograph or screen in medicine; external expression of psychic processes proper of human consciousness in psychology; a system of images to express an artistic idea in arts; external manifestation of hopes, dreams and subconscious drives in occultism; vivid representation of an analytical content in analytics. Being an auxiliary carrier of information relative to text, visualization helps identify the essential, fundamental ideas, show the relevance of intellectual operations and communicate as much information as possible. Schematization is, in our view, a form of visualization.

Visualization is a tricky stage of the research process in its own way. At this stage, the shabbiness of ideas, conceptual faults, logical gaps, weak evidence base etc. are difficult to hide. All these deficiencies will find their way out and become visible.

In the process of graphical visualization researchers, teachers and students will face problems of dual nature. Firstly, they need to choose a

graphic language and a type of schematization that will best express the idea of research. Secondly, they need to present a graphic scheme in a modern design form to make it vivid. While the schematization is focused on modeling a thing and identifying its essence with graphic means, the visualization purports to represent, demonstrate in a vivid form.

The difference between the former and the latter could be demonstrated on specific examples. Suppose an author, having tried various concepts, finally resorts to use the graphic image of a house. As a graphical concept, the grapheme "house" may look as follows (Fig. 2):

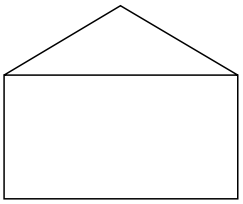

Fig. 2. The grapheme "house"

Will this suffice? For an academic discussion in most cases — yes; but where a presentation is expected to be public, the graphic concept needs to be made more expressive in its artistic form which are abundant in this case (Fig. 3):

Fig. 3. Artistic renditions of the concept "house"

The problem is to choose from this variety a graphical form which would be up to the challenge. This will require to call on a professional artist or designer, or, as the first step, to open up an album with samples of decorative design.

The scholarly and analytical practice will make use of various visualization means, the most widespread being the following.

Original text design. Scholarly and analytical documents often take the form of printed sheets of paper, only to make one expect hours of boredom and tedium. Clearly structured documents with alternating typesets and colours where graphs, quotes, definitions, conclusions and other major elements are placed in colourful boxes are much more attractive. With modern computer technologies and ready-made design patterns, decorating a text is not problematic.

Drawings. Scholarly and analytical texts sometimes have drawings to serve different purposes: illustrating a text, signaling an important wording, conclusion, definition etc.

Morphological drawings of a cross-section or part sectional view of human organs, buildings, transport vehicles, technical facilities make up a special class. They are often used to illustrate popular science and technology magazines.

Bad at drawing or cannot draw at all? No problem. Try to draw always and everywhere with whatever means you have at hand. Even a mediocre drawing will make it easier to frame and communicate a thought.

Pictures make up another major means of visualization. Large companies will normally have objects of art, paintings, watercolours and lithographic prints in their offices to make the environment less official. Pictures in text documents (such as business reports) serve roughly the same purpose. Thus, an annual report of a major Russian bank suggested associations with a ballet performance. Apparently, there were a lot of parallels for a nice, original and meaningful presentation. Such a report will not be left on the table or thrown into the waste basket. Importantly, a "picture gallery" should echo, not contradict, the document's content. The thing is to bring aesthetic dimension to a business document, add a touch of beauty, and to introduce unexpected associations and allegories, give the reader an opportunity to lay back without departing from the subject in question.

Cartoons are an excellent means of visualization for stressing the main idea of the document, and creating an atmosphere of an alternative critical view on the discussed problem. Cartoons are very informative as they invoke whole strata of social experience with limited graphical means and appeal not just to the reader's intellect, but to his emotional mindset and values.

Moreover, it should be borne in mind that the provocative nature of cartoons is differently perceived by people, sometimes giving rise to hos-

tility and negative attitude. We believe this provocativeness to help rather than obstruct the perception of text by triggering an internal dialogue and by engaging the reader in a tug of war between a serious text and a funny, ironic cartoon inserted in it.

Pictograms and infographics as a means of visualization of business, science and analytical texts have become popular over the last few years. Of course, they provide a simplified and at times even primitive picture of a process/phenomenon. But they have an important merit of covering the whole of the picture on a single sheet of paper. For example, an infographical image of the thesis defense gives an idea of the main stages, turning points and traps of this complex process, and thus helps to better prepare for it.

Digests, comics perform largely the same function as infographics but using other graphical means such as drawings and sketches of a specific artistic style to illustrate the turning points of a dramatic storyline. Digests and comics could be useful when the purpose is to expand the readership and achieve their support not only through logical argumentation but also emotional impact. Visualization of this type is best effective in marketing, PR and public analytics.

Presentations are probably the most affordable and popular form of visual representation of research and analytical documents. While a good many quality literature is devoted to the art of computer-aided presentations, the general level of analytical presentations is deplorably low. Some authors, failing to find adequate graphic images, burden their presentations with text fragments to read out later, something which is, in our opinion, absolutely inefficient. Others are lured by rich opportunities of color, light, graphics, animation and hypertext, only to transform the presentation into a gaudy circus show. And only a few manage to achieve an organic fusion of pictorial and oral performance where the presentation does not distract or dominate but complements oral speech helping to make the performed work more meaningful.

Animation in the form of a standalone film or animated drawings and charts can be a good complement to a serious research material. Animation is especially useful where a dynamic representation of interrelated processes is necessary. Thus, for example, the operating principles of a sophisticated technical system are much better visible in animated images than static drawings and schematics. Computer animation is also widely used to accompany TV news items (video images of the weather, accidents, crime, disasters, natural phenomena).

Motion pictures and video films are the most effective but also most complex means of visualization of research materials. The problem is that neither research and analytical ideas nor ideological principles are transposable to screenplay. Any such attempts (there were some) give birth to monster movies which discredit as much as impose the ideas they convey. Rather than being a simple illustration, a motion picture or video film should be a creative product of its own on the same subject as the principal document but — as in the case of cartoons — sometimes in constructive opposition to conclusions and proposals of government officers. The more independent and creative a film is, the greater impact it will make — not as a visual supplement or promotional video but as a standalone artistic production on the same subject.

3D models, as a means of visualization, are three-dimensional full-scale replica. This method is most often used to represent landscapes and architectural objects, as well as for industrial and military applications. But with the invention of 3D printing it became possible to "print" three-dimensional replica of machines, units, buildings, research models, and to provide three-dimensional visualization of abstract structural images.

Virtual and extended reality as an altogether new category of visualization emerged in the late 20th century relies on computer-generated visual effects to create artificial visual imagery replacing/extending the reality in an increasingly vivid and convincing way. The objects of virtual/extended reality are widely used in cinema, television and entertainment business including computer games. There is an active search for the forms in which they could be used in science, analytics and education.

Visualization is a powerful tool to put the outcomes of research and analysis into practice but to be used with a sense of moderation. It is well known that live metaphoric speech attracts the listener's attention and improves the understanding and memorizing. The same speech overburdened with imagery, ostentatious and pretentious, will produce an opposite effect. Practice and critical assessment of the achieved results is permanently needed to strike an optimal balance between the textual and visual, rational and emotional.

To conclude, let us consider a promising but not yet mastered and actively used form of visualization such as multi-layered visualization. It would be safe to define it as a graphical model of a process/phenomenon whose various aspects and elements are represented in the form of relatively independent, interrelated and interacting layers of a model, map or chart.

Multi-layered visualization can be widely used in a modern environment: in medicine as a sequence of photo/X-ray prints or layered CTT scans showing the structure of the studied object and/or different progression stages of a disease; in social/political sciences as a multiple aspect description of a process/phenomenon; in history as different descriptions of the same event viewed by different parties or researchers; in archaeology as a sequence of interrelated cultural layers; in cultural studies as a multidimensional description of a cultural process or phenomenon; in jurisprudence as a set of witness statements on the same event; in analytics as a multiple aspect model of a situation to be analyzed etc.

The multi-layered structure of technological systems can be demonstrated on the example of electric power engineering. "This is a complex object which has a technological layer (in industrial engineers' paradigm, it is about kilowatts, physics and process technology); a business organization layer (it is about economic agents which transform fuel and other resources into heat and light at particular homes); an economic layer (the same business processes are regarded as the transformation of money and goods, as consumption and production); a financial layer (it is about cash flows viewed outside pipes and power transmission lines). One can probably name a dozen other paradigms as prisms to view electric power engineering and its reform. However, bringing them together is only possible by configuring various knowledge and identifying the stakeholders' positions in respect of this entity to be analyzed" [Schedrovitsky P., 2008: 61].

Scholarly and reference literature makes a wide use of the terms aspect, side, viewpoint, sight angle. What new does the multi-layered visualization bring? Why is it there at all? Each of the above concepts has a domain of its own. While it is easy to write or say — side, aspect, viewpoint, sight angle — it is less evident how to depict them schematically. Unlike them, the concepts of layers and multi-layered visualization are also graphic language means are simple to schematize and understand.

Multi-layered visuals are a promising type of schematization with a wealth of capabilities allowing, in particular, to:

Bring together the various aspects of and approaches to a thing, situation, process or phenomenon.

Delineate these approaches without mixing them.

Identify deficiencies in a system of approaches or inadequate development of specific layers in a multi-layered visual and to make up for it.

Encourage new creative approaches and innovative ideas.

Demonstrate, as may be necessary, not only the structure but also the time dynamics of object interaction.

Identify interaction *hubs* in a multi-layered structure, that is, the points where the interrelated layers cross/exchange or clash/reject.

Communicate the information of various layers expressed in the language of different disciplines to the integrating layer to be enriched by adding up the interrelated aspects of a problem.

In practical research and analysis, multi-layered visuals might take different forms. Given below are examples of different types of representations of research situations.

Classic multi-layered visuals are the simplest and widely used type. From a graphical perspective, a classical multi-layered visual looks as follows (Fig. 4), its cognitive value being layers representing different sides, aspects, manifestations of a phenomenon under study, only to bring them together in a scheme which allows to consider them in relation to each other.

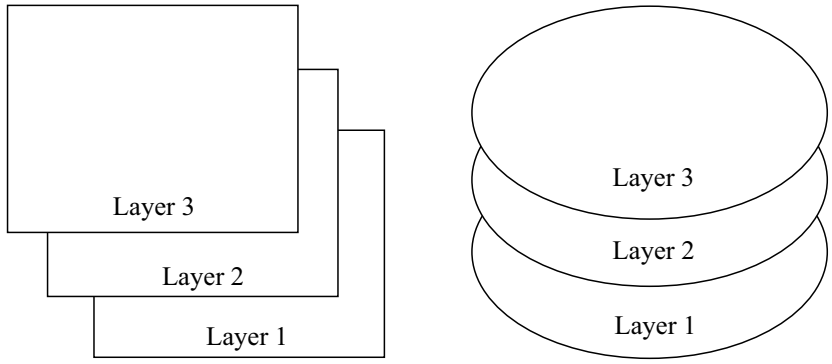

Fig. 4. Classic multi-layered visuals

Sandwich-like multi-layered visuals are closer to the classic type, with the content of a problem schematized as layers of a "sandwich". Moreover, the layers can be homogenous or heterogeneous and contain inclusions of various kind. The image of a sandwich is intuitively clear and does not require to be deciphered. In making a scheme, the number of layers could be increased or decreased without a major impact on the structure (Fig. 5).

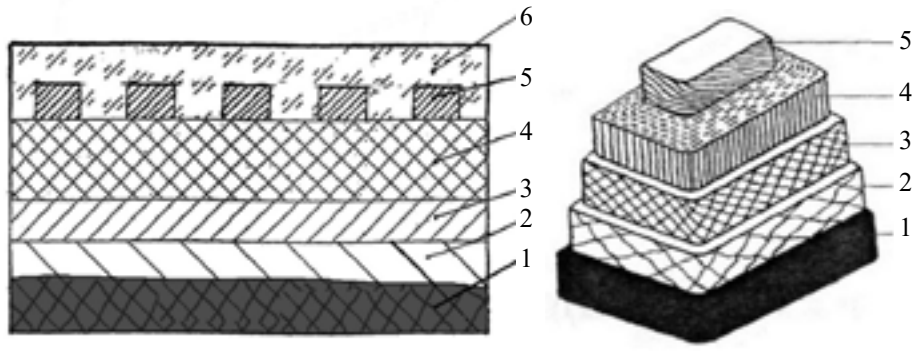

Fig. 5. Sandwich-like multi-layered visual. Planar and 3D views

Cable-like multi-layered visuals respond to a frequent need to graphically represent processes with conditions and circumstances, as it were, twining round. This is an analytical task addressed by this type of multi-layered visuals (Fig. 6) which graphically resemble a cable with the process to be analyzed in the center and external conditions and circumstances on the outside.

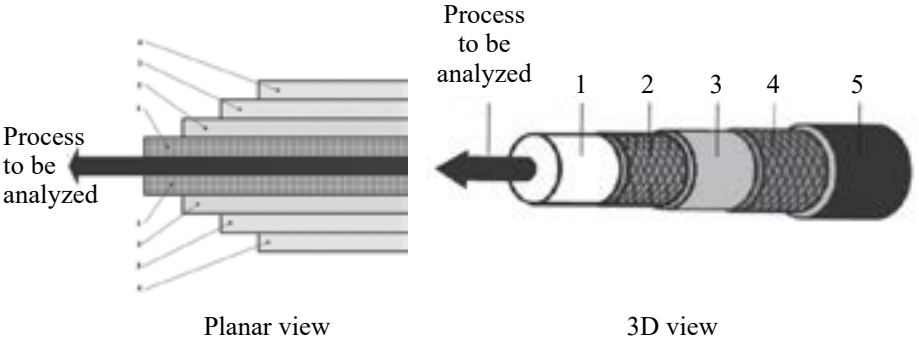

Fig. 6. Cable-like multi-layered visuals. Planar and 3D views

Egg-like multi-layered visuals. A multi-layered visual may be used to depict a multi-layered situation in a closed, secluded, isolated environment, for example, a camping trip, mountaineering group, sea vessel, submarine or spaceship. In this case, layers of the situation under study are concentrated around one or more centers, that is, form a kind of multi-layered egg subject to a minimum of outside effects. Graphically, this type of multi-layered visuals may look as follows (Fig. 7).

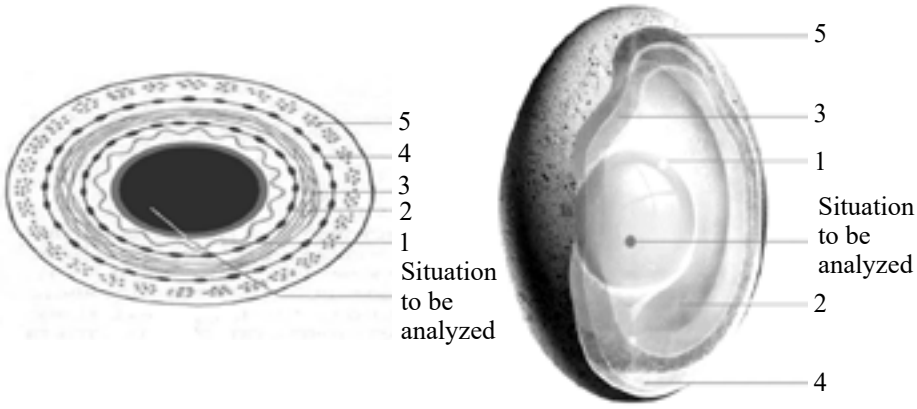

Fig. 7. Egg-like multi-layered visuals. Planar and 3D views

In using multi-layered visualizations, it should be borne in mind that their layers are normally non-equivalent, with one or more *integrating layers* which sum up the content. This layer is especially important for researchers, such as political layer in political studies, economic layer in economic studies, legal layer in legal studies etc. It could be called the "main", "summarizing", "integrating" or "output" layer (there is no definitive terminology yet). The integrating layer(s) provide(s) an insight into the whole content of a complex, multi-faceted, multi-layered structure (Fig. 8).

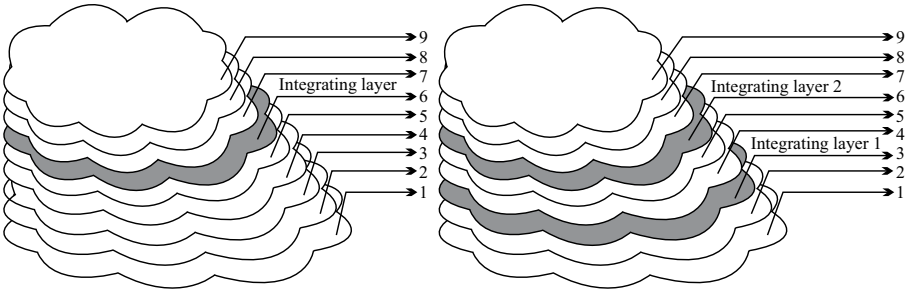

Fig. 8. Multi-layered visuals with one and two integrating layers (in black)

By connecting many diverse phenomena, multi-layered visuals will in most cases describe them in terms of different languages — economic, political, legal, technological etc. However, a vertical section view of a multi-layered visual will always reveal interaction points where ideas and rep-

resentations of one layer come into contact with other layers of reality. A multi-layered visual will merge various representations into a whole thanks to interaction points at different layers.

Practical application of multi-layered visualization can be demonstrated by a specific example. Driverless transportation is now rapidly progressing worldwide. According to the Skolkovo Foundation, Russia, driverless cars can account for 25 percent of all cars sold worldwide by 2035. As a result of their widespread use, the urban car fleet will decline by 60 percent, exhaust gases by 80 percent, and traffic accidents by 90 percent[3]. However, the development and introduction of driverless vehicles is a complex multi-sectoral problem which has a number of related sub-problems — economic, political, governance, legal, engineering and technological, infrastructure, security, fuel and energy, social etc. The range of problems for the development and introduction of driverless transportation could be represented by the following multi-layered diagram (Fig. 9):

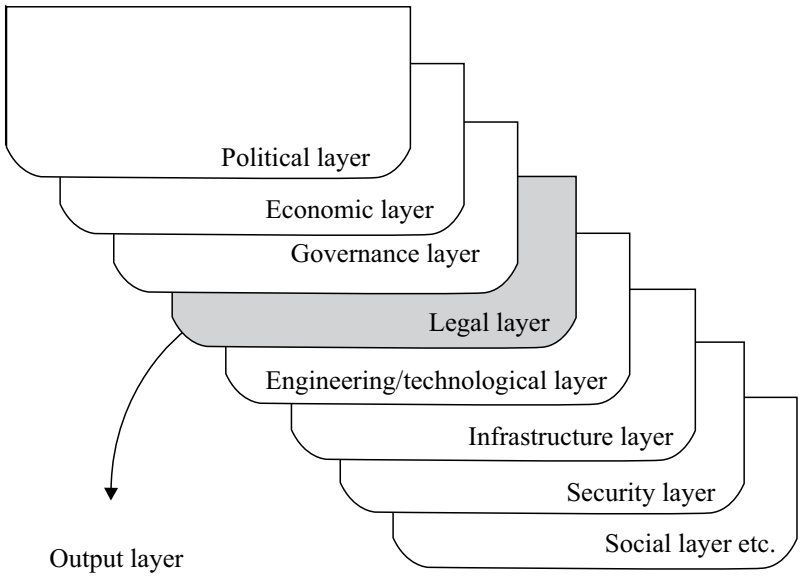

Fig. 9. The multi-layered diagram of the development and introduction of driverless road vehicles

To stress the principal point, multi-layered visuals are a promising form of schematization which allows to expressively visualize the object under

[3] Available at: URL: https://sk.ru/news/bespilotnye-avtomobili-kto-razrabatyvaet-ih-v-rossii-i-chto-meshaet-razvitiyu-rynka/ (accessed: 11.07. 2021)

study, make the related knowledge systemic and suggest new creative ideas to those who seek them. Multi-layered schematization could be used to make complex ontological, methodological and organizational charts. Meanwhile, multi-layered visualization should not be viewed as a "magic wand": while allowing to systematize and make spectacular presentations of the available knowledge, it is by no means a substitute for an in-depth research or analytical study.

Conclusion

The author of that paper has developed and offered for practical use the graphic language Grafento 1 designed to solve analytical tasks in the domain of law. This manual contains graphemes (graphic language signs) and their meaning in the tabulated form. Number 1 means that what is proposed is the initial tentative version of the graphic language.

The Grafento 1 relies on the language of methodological schemes created by G. Schedrovitsky and his followers. A number of graphemes were borrowed from A.L. Yemelianov's article "The Language of schematized images" [Yemelianov A.L., 2001: 414–459]. Graphic languages of this type can be used in legal research and legal education, as well as in the development of legal info charts, visualizations and presentations of various purpose.

The next step was the development of the Dictionary of Legal Analytical Graphics, a more advanced version of the graphic language in law which includes not only the "alphabet" but also graphic sentences, phrases, graphic descriptions and arguments. The Dictionary has samples of legal analytical schematizations of various purpose, some of which were created by students of the Legal Analytics course.

Finally, album "Legal Analytics in Definitions, Maps and Charts" can be regarded as the third step of advancing graphic language in the field of law. Its electronic version is available in the stock of HSE publications. Album brings together 200 of the most demanded schematizations in the field of legal analytics and the theory of state and law.

Like natural languages, the graphic language has a multitude of styles and sub-styles which, like its morphology and syntax, are not discussed in this paper. Those who are interested in this particular aspect may refer to William Bowman's remarkable book "Graphic Communication" [Bow-

man W., Venda V., 1971] which describes the basic elements of a graphic language including dots, lines, colours, textures and where the author analyzes "graphic statements", "phrases" and "intonations" and shows on numerous examples the wealth of graphical means to represent objects such as structures, organizations, systems, processes, dimensionalities etc.

Remarkably, apart from the graphic language in law, there are those created for other fields and practical applications — language of infographics, language of propaganda and campaigning, language of marketing etc.

Schematization and visualization in law are in constant progress to give birth to new forms, styles and fields of application. The graphic language in law is a new development which is actually at the stage of inception. Hence, everyone willing to work and think in this language can make an important contribution.

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Digitalization of Society and Objects of Hereditary Succession

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Abstract

The article explores the key issues that arise when digital assets make part of the estate. It considers how the classical theory of inheritance law could be used in the case of digital inheritance and what clarifications should be made to this theory. The purpose of the study is to examine the features of the category "heritable digital assets" and how it evolves as society undergoes digital transformation. To achieve this purpose, the first part of the study is focused on the general issues of the theory of heritable assets while the second part explores the problems of qualifying assets under civil law produced by digitalization of society (digital rights, cryptocurrencies, social network accounts) as heritable. Finally, the third part based on inductive reasoning formulates general conceptual problems of developing legislation for heritable digital assets. Based on the findings, the study concludes that the following legislative solutions to the identified problems are possible: prohibiting digital inheritance altogether; introducing regulation of inheritance specifically for digital assets; allowing digital assets to pass to estate only if they can be realistically made tradable; admitting that inheritance of digital assets is specific. Obviously, the choice of approach will largely depend on public policies regarding the digital economy that in their turn should rely on evidence-based concepts and realistic proposals. The author believes that regulation of legal relationships of digital inheritance in Russia could be based on a mixed method that combines traditional and technology-driven solutions. This is the best option if the assumption is made to allow digital assets into the estate only where they can be realistically made tradable.

Keywords

digital law; digital rights; cryptocurrency; social networks; inheritance; heritable assets; estate; will.

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Background

The digital change has become a major trend and a symbol of progress in all spheres of social life. Researchers and legal practitioners are increasingly used to blockchain, cryptocurrencies and smart contracts while digital technologies are now customary features of contractual, corporate and labour relationships, not to mention intellectual property rights where economic processes have been impacted by the Internet for decades and could not be understood outside this influence.

Inheritance law has traditionally been among the most conservative spheres of legal regulation. While digital technologies have so far had little impact on this branch, it cannot be altogether immune from the processes taking place worldwide. The current situation is simplified to some extent by a small number of real cases but any such case brings up a bitter controversy (one memorable dispute concerned access of a deceased person's heirs to his Facebook account). Meanwhile, disputes of this kind often focus on a particular case since there is no concept of digital inheritance.

The need in this concept will apparently arise sooner or later when owners of cryptocurrencies, valuable social network/computer game accounts, or other digital assets leave an estate while their potential heirs become entangled in litigation. The question at this point will be to what extent the classical theory of inheritance is helpful in such matters. This paper is an attempt to make a pertinent contribution to the solution of the said problem and propose a view on this situation.

Thus, the study purports to look into the features of the category "heritable digital assets" and how it evolves as society undergoes digital transformation. The paper will focus on the general issues of the theory of heritable assets and on the problems of qualifying assets under civil law produced by digitalization of society (digital rights, cryptocurrencies, social network accounts) as heritable. To conclude the paper will formulate general con-

ceptual problems of developing legislation for heritable digital assets based on inductive reasoning, with the author proposing his own view on how the relevant legislation should evolve.

1. Theory of inheritance law

The civil law theory did not know of any major dispute regarding assets to be inherited — at least before digital assets have made their appearance. While it was debated whether specific rights and obligations[1] can be heritable, the principle that property rights pass to estate while non-property rights do not has never been challenged.

This rule traditional for private law is enshrined in Article 1112 of the Civil Code of Russia: an estate shall comprise things owned by the testator as of the date of probate as well as other property including property rights and obligations. The rights attached to a person, non-property personality rights, other intangible goods shall not make part of the estate.

Based on interpretation of these provisions, it is generally acknowledged that property rights should meet certain requirements to qualify as heritable. Firstly, a potential testator should possess them as of the date of probate. Secondly, they should not be linked to the potential testator's personality. Thirdly, inheritance of such rights by succession should not be prohibited by law.

In practice, disputes would arise largely due to inadequate formalization of rights by testators rather than qualification of assets as heritable. Disputes of this kind concerned the inheritance of housing whose privatization was not complete[2], structures which were not authorized[3] etc. While courts often adopted different rulings in such cases, this problem suggests a need to improve procedural aspects of formalizing rights to real property rather than controversial interpretation of the rules applicable to heritable assets.

1 For instance, courts adopted different views on the possibility of inheriting a debt resulting from the testator's subsidiary responsibility envisaged by bankruptcy (insolvency) law. See: Review of legal practices of the Supreme Court of Russian Federation. 2020. No. 1, approved by the Supreme Court Presidium on 10.06.2020 // Supreme Court of Russia Bulletin. 2020. No. 10.

2 See: Review of legal practices of the Supreme Court of Russia, 2017. No. 1, approved by the Supreme Court Presidium on 16.02.2017. Ibid. 2018. No. 3.

3 See, for example, Supreme Court of Russia Ruling No. 18-KG20-91-K4 of 19.01.2021. Available at: URL: http://vsrf.ru/stor_pdf.php?id=1960006 (accessed: 22.09.2021)

Of theoretical discussions the following is noteworthy. The argument that debts were not heritable and did not pass to estate followed from the fact that heirs were responsible for debt encumbrance only within the actual cost of the inherited assets. According to V.I. Serebrovsky "debts are… only encumbrance on but not part of the estate" [Serebrovsky V.I., 2003: 60].

However, once inheritance is regarded as a process of transfer of rights and obligations, the difference between encumbrance and heritable assets is not quite clear. Debt-encumbered property (for instance, by servitude) is also heritable and makes part of the obligations attributable to the estate.

Internationally, the concept of heritable property is generally the same as the one adopted in Russia, except that a number of regulations apply to relationships arising from legal concepts unknown to the Russian law. Thus, usufruct does not pass to estate in France and Germany. Meanwhile, the continental law assumes that property rights and obligations are heritable while non-property ones are not.

However, while theoretical profile of heritable assets is not challenged at the moment, the ever emerging and rapidly progressing digital *assets* can question the relevance of this concept.

Firstly, the property and non-property components of a number of digital assets are not easy to distinguish. Thus, social network or computer game accounts that originally served the purpose of communication and entertainment have given rise to high-value transactions. Possible inheritance of an account means automatic transfer of property rights (guaranteed by inheritance law) and non-property rights (prohibited by inheritance law).

Second, there will be a problem of inadequate formalization of the rights to digital assets to be inherited since the effective inheritance law does not obviously have the mechanisms would be good enough for this.

Thus, the development and improvement of digital assets and digitization of society as a whole will require to revisit the core approaches to heritable assets or at least to specify the underlying concepts.

2. Civil law relationships resulting from digitization of society

The technological change that accelerated during the pandemic has resulted in the emergence of things unheard of in classical civil law. Obvi-

ously, civil law assumes the principle of contractual freedom, with agents free to transact in any asset except those explicitly prohibited by law or to do so subject to the established restrictions. Meanwhile, technological aspects have become so important that legal experts do not always grasp the peculiarities of the emerging relationships.

In 2019 the Civil Code of Russian Federation (hereinafter CCR) came to include a special article on digital rights (Article 141.1). It was explicitly established that such rights were property rights (Article 128), but the situation as a whole was not made any clearer. Firstly, the legally established definitions of digital rights turned out to be not quite laconic and employed the terms which themselves need to be specified (exercise of digital rights, information system rules, disposition of digital rights — all these legal categories have so far failed to elicit a shared understanding of either theoreticians or practitioners). Secondly, civil law has failed to adopt a legal regime applicable to a number of things not explicitly attributable to digital rights as defined by Article 141.1, but which entail real economic relationships (cryptocurrencies, social network/computer game accounts etc.).

Importantly, economic practice is here considerably ahead of the law. Thus, the trade in social network or computer game accounts has become quite common: anyone can purchase, for example, a World of Tanks account with a wide range of choice both in terms of price and quality (power level)[4]. Thus, the relationships are visibly real. Are such relationships governed by law and how they should be governed, is another story.

For example, certain social networks have a clause in their user agreement to regulate the transfer of account after the user's death. This approach is technically reasonable. Moreover, researchers propose to set up an encrypted online bequest system based on blockchain and smart contract technology [Chen C.-L. et al., 2021: 1].

Meanwhile, E. Yu. Petrov is right when he writes that "where a digital asset has the economic attributes of ownership, the contractual restrictions of inheritance approved by the user can be waived by courts" [Petrov E. Yu. et al., 2018: 67]. The situation is tricky. On the one hand, a technological solution is necessary to transfer an account after the user's death (for example, by specifying a heir's email); on the other hand, this option is contrary to provisions of inheritance law and likely to cause reasonable objections on the part of both notaries and heirs omitted in such a "will".

[4] See FunPay (game account exchange). Available at: URL: https://funpay.ru/lots/77/ (accessed: 25.09.2021)

The theoretical problem can be generally described as follows: a digital asset should be part of the estate as meeting the core requirements to things subject to legal relationships of inheritance (primarily giving rise to economic relationships). However, this recognition will make it impossible to implement the core principles and rules of inheritance law in terms of both procedural aspects (mentioned above) and protection of rights of the parties to legal relationships.

Taking smart contracts as an example, imagine what rights and obligations they would entail after the death of a person deciding to use this technology. It was argued that "the problem of apparently impossible assignment of a right/claim under the original smart contract is solvable" [Efimova L.G., Mikheeva I.V.,Tchub D.V., 2020: 98]. The researchers went as far as to propose specific ways to address this problem largely shared by the author of this study.

Succession inheritance is apparently possible in this situation. However, it is not quite clear what is the procedure and the agency to refer to for implementation of such rights. Let's imagine that the transfer is automatic: cryptocurrency has been transferred to heirs but is not available for lack of a key.

As another example: let's recall that para 1, Article 1149 of the CCR about the right to mandatory share in an estate serves the purpose of providing financial protection to those in precarious situation due to old age or poor health. The right to mandatory share in a digital asset appears strange both from a perspective of its essence (transferring a computer game account as a protection from old age or poor health?) and from a perspective of the procedure (transferring codes and passwords to those not mentioned in a will?). While this problem will be apparently solved by transferring other than digital property as a mandatory share, it will be necessary to determine the value of the said digital asset anyway.

This paper will focus on certain types of digital property (digital assets) — digital rights, cryptocurrencies, social network accounts — in light of the principles of inheritance law and a possibility of passing to estate. It is not possible to discuss all possible digital assets deriving from digitization of society since new ones keep coming into existence[5].

[5] Thus, there was a discussion in mid-2021 on tradability of exclusive digital tokens to images of all Hermitage paintings. While their inheritance has not been an issue so far, it is logical to assume that, once such digital assets are tradable, they should apparently pass to estate. For details see, for example, Ivanov A.A. *Stop the Hermitage!* Available at: URL: https://vk.com/ivanov.pravo?w=wall-126165392_1917 (accessed: 01.10.2021)

Meanwhile, there is no sense in discussing all such assets. A study of some of them will provide an insight into the main development trends of the legislation and legal practices, as well as into the approaches developed by business practices, and will allow to propose ways to improve the legislation.

As a matter of convention, a "digital asset" (digital thing, thing existing in a digital form) means in this paper a data resource deriving from the right to value and tradable in a blockchain as a unique identifier[6]. Importantly, such assets exist in a computer code and give rise to real relationships, primarily economic.

2.1. Digital rights

A long-awaited introduction of this concept to law has done little to simplify the general understanding of how digital assets are traded, with strange legislative restrictions only to make this situation especially confusing. Many researchers are amazed at the solution chosen by the legislator whereby digital rights are deemed the rights to claim and other rights named as such in the law, with their content and terms of exercise to be determined by the rules of a qualified data system. "Thus, the law should not only name certain rights as digital ones but explicitly qualify the data system under whose rules these rights will be deemed tradable" [Blazheeeva V.V., Egorova M.A., 2020: 266].

The author of this paper believes that the rule of Article 141.1 runs the risk of becoming a dead letter almost never used in practice. A distinctive feature of digital assets is that they emerge and improve on a permanent basis. This is what digitization of society is about. However, the logic of Article 141.1 is to "squeeze" digital rights into the boundaries of only those rights that are named in the law, something that is contrary to the principles and trends of digitization taking place worldwide.

The following wording from para 1, Article 141.1 deserves special attention: "No exercise, disposal of a digital right including transfer, pledge, encumbrance or other restriction of disposal shall be possible *unless performed in the data system without recourse to a third party* (italics added. — A.V.)".

How this rule should be interpreted in respect of a will? Is it conceivable that a will regarding digital rights may be made in a data system without

[6] See for instance: URL: https://www.banki.ru/wikibank/tsifrovoy_aktiv_/ (accessed: 01.10.2021)

recourse to a third party? The answer will obviously be negative since testamentary rules are specific in respect of other transactions.

On the other hand, para 1, Article 141.1 may be interpreted differently: once a will cannot be made "unless within a data system and without recourse to a third party", no disposal of digital rights in the event of death will be allowed. From a perspective of formal logic such interpretation is quite plausible. The only hope is that the legal practice will, rather than following this path, regard digital rights as a special kind of property rights that make part of an estate.

Among students of digital rights Yu. S. Kharitonova is willing to qualify them as heritable but believes that "only tradable digital assets can pass to estate as part of universal succession". Further she adds: "Digital inheritance in law is restricted, depending on a particular asset, by the contractual terms and/or statutory right of individuals to privacy" [Kharitonova Yu. S., 2020: 5]. That is, the problem of whether a particular digital asset will pass to estate should be solved on a case-by-case basis irrespective of the regulatory model chosen by the legislator.

A simple statement of the fact that digital rights are property rights has not obviously settled the question of qualifying them as heritable once and for all. This issue is unlikely to be solved without technical solutions supported by legislatively established rules.

In this regard, it is hard to share the optimism of certain authors who believe that specific problems in this sphere could be removed already now. For instance, it is argued that information on the existence of digital rights owned by a testator can be obtained through a review of email messages, banking transactions, entries to a register of rights reflecting transactions with assets, certified tokens etc. At the same time, it is admitted that access to e-wallets of testators identified by the heirs cannot be enforced so far in absence of a code [Bessarab N.S., 2020: 370].

Any action to study email messages, analyze banking transactions etc. will inevitably run into problems of legal (who will provide access to a banking secret or email messages?), physical (how many such actions should a heir perform and will they result in "discovery" of a digital asset?) and technical (what are the tools to be used?) nature. Therefore, it is very likely that where a heir was not aware of the existence of digital rights while the testator failed to mention them in his will, there is no chance at all to inherit them.

2.2. Cryptocurrencies

Bitcoins and later other cryptocurrencies have made a splash in the economy over the last decade. While a growing interest in cryptocurrencies is unlikely to be observed at the moment, they still hold an important place in civil transactions (including from a perspective of value and as a cash asset).

The legal profile of cryptocurrencies is controversial. While in formal terms they cannot be qualified as digital rights, researchers treat them as part of a non-exhaustive list of properties or as "other property" [Saveliev A.I., 2017], or special "digital property" [Efimova L.G., 2019] regulated by the CCR. In the international literature it is generally recognized that relationships in respect of cryptocurrencies are those of ownership [Low G., Tan T., 2020].

In Russia, there is no formal confirmation of it although the Supreme Court actually established that the relationships in respect of cryptocurrency were by law those of ownership. Thus, the following conclusion was made in one of the cases: by having transferred his property (cryptocurrencies) in exchange for cash receipts through a cryptocurrency sale transaction, the person in question pursued a certain economic purpose. Thus, there was a legal basis for the receipt of cash[7]. It follows that cryptocurrencies should pass to estate as assets qualifying as heritable.

A discussion of the procedure for inheritance of cryptocurrencies raises up questions as well. T.S. Yatsenko rightly observes that "it is currently impossible to enforce access to an e-wallet identified by heirs unless there is a code" [Yatsenko T.S., 2019: 14]. In addressing the issue of passing cryptocurrencies to estate, one needs to take into account the functional features of cryptocurrencies as a whole and specifics of a particular cryptocurrency. An approach whereby inheritance in law of cryptocurrency assets is technically impossible due to peculiarities of the asset itself is worthy of discussion [Omelchuk O., Iliopol I., Snizhanna A., 2021: 103–122].

In fact, cryptocurrencies are used according to the rules of a network where users have unique logins and passwords (and possibly other means of identification such as fingerprints). With regard to digital assets, notaries are already aware that "once a testator has failed to communicate his

[7] Civil Chamber of the Supreme Court of Russia Ruling No. 44-KG20-17-K7, 2-2886/2019 of 02.02.2021 // SPS Consultant Plus.

login and password to heirs, they are unlikely to inherit the right to a social network page or valuable network game character"[8]. The same is true for cryptocurrencies.

It is worth noting that legal experts have already made recommendations to cryptocurrency owners on how to proceed to make sure their assets are inherited by other persons after their death[9]. Meanwhile, these recommendations do not fully follow the law for lack of a specific procedure to make a will in respect of such cryptocurrency assets. It is impossible to predict how representatives of the notary profession and courts will react.

There are evidence-based approaches to mechanisms for cryptocurrencies to pass to estate. A possible procedure includes a "classical will and use of a deferred payment system (transfer of all cryptounits to the proposed heir within certain dates" [Dovlatova A.M., 2020: 50]. Meanwhile, both these options are fraught with practical problems. Making a "classical" will with a public notary may run into the problem of describing the heritable asset in question while the deferred payment system assumes that a cryptocurrency owner should be active and review this function on a permanent basis.

It is telling that upon his study of the cryptocurrency regime in Russia R.M. Yankovsky came to a discomforting conclusion that there was a trend to prohibit any such transactions. This author points out that, while cryptocurrencies are not formally included into the estate, "the regulator will shortly resort to sanctions for violation of the new law, and identify the obligations and prohibitions applicable to the issuance and transactions with cryptocurrency" [Yankovsky R.M., 2020: 43, 68]. The statement follows a certain logic as the legislator has introduced numerous prohibitions in respect of cryptocurrencies over the last few years, with legal rights of the parties to such transactions drifting away from regulation.

Let's imagine what happens if cryptocurrency transactions are prohibited in Russia. There will be a tricky situation of a conflict of laws related to regulation of the relevant relationships. As there are countries where cryptocurrency transactions are allowed and even encouraged, it is unclear how

[8] See *Moscow notaries investigated how to inherit digital assets.* Available at: Moskovskiye notariusy razbiralis kak peredat po nasledstvu tsifrovyie aktivy (notariat.ru) (accessed: 11.05.2021)

[9] See Inheriting cryptocurrency in Russia: what is important to know. Available at: Peredacha kriptovalyuty po nasledstvu v Rossii: chto vazhno znat: RBC (rbc.ru) (accessed: 11.05.2021)

the rights of a cryptocurrency owner's heirs will be protected if the law governing the inheritance relationships will be that of the Russian Federation.

While there is currently no reason why cryptocurrencies should not pass to estate, their technical and economic features are such as to make the succession by inheritance not only problematic one, but altogether impossible.

2.3. Social network accounts

Social networks were originally used exclusively for personal purpose (such as correspondence, making friends, disseminating information about oneself). Now social network accounts have evolved into business tools for quick and efficient marketing of goods and services. There is a belief that a social platform account can never serve individual purpose alone. It operates as a network component for the benefit of all users through an exchange of digital content. Other authors argue that the main purpose of each account is to satisfy the needs of both economic and non-economic nature [Grochowsi M., 2019: 1198].

There are different approaches to the legal nature of an account: an entry to the server of a social network's owner; an agreement between the user and network organizer; mixed nature [Panarina M.M., 2018: 29-30]. However, there are doubts whether the proposed options apply to all situations. A social network account can be used for a variety of purposes by one or more persons and have a unique content etc. All these things combined are supposed to affect its legal nature and thus the rights and obligations of the parties to the relationships in question. For example, while the name of one account can be registered as a trademark or service mark, that of the other cannot. Another example: the use of a business account to process consumer claims.

Interestingly, in considering one case the court ruled that a business account can be part of a business sale agreement[10], that is, incorporated into an enterprise as defined by the CCR. Obviously, an account could be treated in this original way as well.

While there is no legal provision on inheritance of social network accounts in Russia, a number of international researchers argue that the law should explicitly establish a procedure for their inheritance. It is asserted

[10] See: Third general cassation court ruling No. 88-18815/2020 of 09.12.2020 (unpublished) // SPS Consultant Plus.

that, while digital services and digital content are defined in various legal documents at the EU level, there is yet no universal definition which has to be introduced by way of amendments to EU directives.

However, the situation is not straightforward even within the EU as there is currently no EU-wide method of managing a digital estate though some countries (Estonia, Croatia, Netherlands, Poland, Italy) have their own special (and different) rules. For example, while digital rights including those to accounts are heritable in the Netherlands [Berlee A., 2017: 256–260], the Croatian legal theory and practice treat this issue with certain doubt [Vučković R.M., Kanceljak I., 2019: 724–746]. The Estonian regulation is unique in the EU as it is explicitly acknowledged by law that digital assets are heritable. Even personal belongings of the deceased (such as letters, diaries, email correspondence and personal messages in social networks) pass to their heirs provided they are stored on a hard disk or flash memory [Kolk K-A., 2020: 22].

Regarding international legal practice, the German Federal Court of Justice has made a splash when it recognized the heirs' right of access to a social network account of a deceased person. The extent of access to the account was specified in the ruling published on 15 September 2020: parents of the deceased were given the same access rights as those of the original user. When representatives of the social network provided a flash storage with a PDF file containing the account details, the court considered it to be not sufficient[11].

Thus, a social network account should theoretically make part of the estate, once its economic value (for example, for the purpose of doing business) has been proved. Meanwhile, the procedure for its transfer is not altogether clear from the perspective of law.

3. Digitization of society and digital inheritance: legal development prospects

A study of the prospects to pass to estate certain assets existing in the digital form brigs up similar findings almost in all cases.

[11] Germany: Federal Court of Justice Clarifies Scope of Postmortem Access to Social Media Accounts. Available at: https://www.loc.gov/law/foreign-news/article/germany-federal-court-of-justice-clarifies-scope-of-postmortem-access-to-social-media-accounts/ (accessed: 25.03.2021)

Firstly, all digital assets and other things under study qualify as heritable assets. Thus, cryptocurrencies (like digital rights or business accounts in a social network) are owned by the potential testator at the date of probate; they are not linked to the potential testator's personality (with exception of some aspects related to the asset's distinctive features, such as personal correspondence in the account). Moreover, the law does not explicitly prohibit — at least for the time being — to pass such rights and assets to estate.

Second, it is not always simple to calculate the value of such asset. This criterion, which should not be decisive in qualifying rights and obligations as part of the estate, can cause estate distribution problems, for example, when calculating a mandatory share. Moreover, certain valuation mechanisms — for example, of a computer game account — are possible as they determine the market demand and supply this way or another.

Third, "digital assets" are peculiar in that third-party access is complicated and often impossible. While sometimes access is possible only after a court ruling (see, for example, a German case regarding Facebook), there are cases when assets (cryptocurrencies) cannot be used at all without a code/password. In this situation, the "digital asset" is not heritable in practice, unless the testator has made a special disposition.

Fourth, as follows from the previous point, a transfer of "digital assets" from the testator to a heir is complicated even with both parties willing. While it is technically possible to envisage certain ways of transfer, the problem is whether they will be allowed by law.

Fifth, it may be that nobody except the testator is aware of the digital asset's existence. Where the testator used his business account or made transactions in cryptocurrencies on his own (including under an alias), his heirs are unlikely to ever know of the estate's existence.

In light of the above, the following legislative solutions are feasible, with the choice largely depending on public policies in respect of the digital economy.

First option: completely prohibiting to inherit digital assets; this would be contrary to the worldwide trend of digital economic development but would solve many problems in this sphere (for instance, complications inherent in the transfer of digital assets to heirs). Although there are practically no theoretical grounds for such solution, it may be possible to assert that all digital *assets* are linked to the testator's personality. This is a controversial but quite feasible approach, once we assume that codes/passwords

identify a person to the point of establishing personal link between the agent and the asset.

Second option: establishing special legal regulation for inheritance of digital assets. As such, this involves a possibility of making a special "will" (within a data system, social network etc.) or instituting a special procedure for transfer of rights and obligations under the rules of a technological network rather than procedures established by the CCR. However promising, this option cannot be implemented without infringing on the core principles of inheritance law and will also restrict the involvement of the notary profession — which in Russia holds a monopoly on formalizing the inheritance rights — in succession procedures. Whether the state is ready for this situation is an open question.

Third option: allowing digital *assets* to pass to estate only where they can be realistically made tradable. For example, where a cryptocurrency key/password is lost (failed to be specifically passed by the testator), the cryptocurrency cannot be transferred to heirs. Thus, the cryptocurrency will not be regarded as part of the estate in this situation. This solution is well-founded from a practical point of view but will considerably restrict the rights of heirs (imagine a testator spending all his savings on cryptocurrencies and failing to communicate the password to anyone). This option can be good for a "transition period", until the economic relationships in respect of digital assets are sorted out.

Fourth option: admitting by law that inheritance of *digital assets* is specific (for example, providing for a "will" to be made under the rules of a technological system — in particular, a "will" in respect of a VKontakte page, with a duplicate to be later provided by a notary) but leaving the general inheritance rules as they are. This options is obviously a compromise in the current environment.

Some legislative solutions proposed internationally partially follow the lines described above. It is reported that the introduction of an e-will and extension of the private will regime are promising lines of research and legislative work as the user should be able to dispose of his assets in the virtual space on his own.

The methods to inherit cryptocurrency assets are described as traditional, technological and mixed. Traditional methods assume a classical or private will. Technological methods: deferred payment systems built directly into crypto wallet client software; use of specific web resources to

inherit digital assets; systems for deferred access to wallets. Mixed methods assume that crypto wallets are hetitable both in the paper and hardware forms [Saleh A. et al., 2020: 235, 245].

The author of this paper believes that the mixed approach is the only option for Russia since the traditional approach does not take into account technological features of digital assets, only to result in "grey" schemes to evade inheritance law by any possible way.

Technological methods are possible, only once the departure from the core principles of inheritance law (such as protection of forced heirship rights) is made official. Moreover, such methods will add loopholes for tax evasion and/or capital flight to other countries, and, this way or another, are unlikely to be allowed in this country.

The mixed methods, in their turn, will enable to strike the right balance and involve notaries in the work to pass digital assets to estate and guarantee the rights of heirs.

A legislative solution to the problem of inheritance of digital assets should also strike the right balance between heirship rights and personal data protection. The legal science has stressed the following point: the right of uncontrolled access to assets existing in digital form — even given to a designated person or his heirs — could in most cases collide with the right to privacy, personal data protection and secrecy of correspondence. As a possible solution, such stated will — once the testator has designated a specific person as heir — should be given consideration including for access to all personal data.

As another aspect worthy of the legislator's attention, digital assets should be differentiated and assume different inheritance procedures. For example, there should be different procedures whereby business accounts and ordinary accounts pass to estate. In each specific case it should be explored whether a specific asset is linked to the testator's personality. It may be that it should not pass to estate at all.

Thus, there are certain legal development prospects regarding the inheritance of digital assets in Russia. Anyway, while distinctive features of such assets should be taken into account, the legislator will need to choose a regulatory option based primarily on the chosen regulatory policies in respect of the digital economy.

To conclude, it is worth pointing out at the Spanish experience of regulating digital inheritance where the legislator in an attempt to regularize the

relationships in question introduced confusing and chaotic rules without caring to propose any technological solution, only to make matters worse despite a laudable pedagogical function [Crespo M., 2019: 101,129]. The Catalonian law of 2017 already provides for a possibility to appoint a digital agent to act vis-à-vis digital service providers who maintain active accounts of the testator [Molins M., 2020: 908].

The difference of approaches adopted in Spain as a whole and Catalonia that is part of Spain is striking. But the most important thing is that laws in this sphere will not work unless they take into account the technological features of the digital estate and are underpinned by universal and understandable concepts. In fact, this is what the Russian legislator is encouraged to do.

Conclusion

Inheritance law in Russia (both in legislation and practice) appears to be the last stronghold against digitization attacks. In fact, civil law rights explicitly include digital rights; in the sphere of corporate relationships, blockchain has been already used for voting for a number of years; contracts and intellectual property have long been discussed through the prism of digitization etc. Meanwhile, the problems in inheritance practices are just emerging — it would be good if the theory and law are up to the challenge.

The following legislative options are possible, with the choice depending on public policies in respect of the digital economy: completely prohibiting to inherit digital assets; establishing a special legal regime for regulating digital inheritance; allowing digital assets to pass to estate only where they can be realistically made tradable; admitting that inheritance of digital assets has certain specifics.

Meanwhile, the legal regulation of digital inheritance relationships in Russia could be based only on a mixed method combining traditional and technological methods. This method best correlates with allowing digital assets to pass to estate only where they can be realistically made tradable.

The traditional approach does not take into account technological features of digital assets, only to result in "grey" schemes to evade inheritance law by any possible way. Technological methods are possible, only once the departure from the core principles of inheritance law (such as protection of forced heirship rights) is made official. Moreover, such methods will add

loopholes for tax evasion and/or capital flight to other countries, and, this way or another, are unlikely to be allowed in this country.

In any case, it is necessary to legislatively allow certain assets (listed in the law) to pass to estate under the rules of a technological system (including a social network, computer game) rather than legal provisions. This will guarantee digital assets, in particular, cryptocurrencies, to be inherited while allowing individuals to make a disposition in case of death within the technological system itself and will thus ensure the principles of testamentary freedom and inheritance by succession to the fullest possible extent.

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Regulating Data Systems of Road Transport Telematics in Russia and Worldwide

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Abstract

The paper is focused on the problem of regulating the operation of data systems of road transport telematics in the Russian Federation to satisfy the widening needs of governments and municipal authorities, natural and legal persons who access and use the relevant data. The authors identify two main approaches to improving the law applicable to road transport telematics: comprehensive regulation and selective, point-by-point regulatory changes. Both approaches envisage introducing amendments to the law, removing gaps including by defining the legal regime applicable to data generated through the use of transport telematics, creating an environment for efficient operation of the Autonet, and protecting personal data in the same time. The subject of the paper is domestic regulations governing social relationships in transport telematics data systems, in particular, those regarding the procedures for the development, operation and use of such systems including collection, storage, processing and availability of data generated by vehicles including odometers operated in the territory of the Eurasian Economic Union; the requirements to cartographic support for transport telematics data systems; international regulatory experience of creating, operating and using telematics data systems and the legal regime governing the relevant data. The objective of research is to study how current regulation can be improved and administrative barriers removed to support the implementation of the Autonet component of the National Technology Initiative. The research methodological approach of the study has demanded implementation of both general and special research methods such as philosophic one, formal logical method, structural systemic one, historical, formal legal, dogmatic, interpretative, comparative and the

method of expert assessment. The general research methods mentioned involved the techniques such as structuring, description, analysis and synthesis of research findings resulting from the analysis of domestic and international regulations. Based on the analysis made, the authors of the study identified gaps and conflicts in the legislative regulation in the field under consideration. Suggestions and recommendations aimed for improving situation are made.

Keywords

administrative barriers, data system, road transport telematics, navigation, data processing, information, transport vehicle, intelligent transport system, information systems, navigation telematic platform.

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Background

The Autonet component of the National Technology Initiative (para 7 of the Action Plan/Roadmap approved by Russian Federation Government Resolution No. 535-r of 29 March 2018 as amended by Government Resolutions No. 927-r of 13 May 2019 and No. 1815-r of 11 July 2020), which is actively pursued at the moment, requires to improve the law and remove administrative barriers for development of transport telematics. Moreover, as specified in the Action Plan, legal constraints for its implementation may include the absence of legal and technical regulations needed:

to regulate marketing of new products and make the market accessible to new types of businesses (it is doubtful that special regulation is required to make the market accessible to new types of businesses. There are general requirements to legal entities and private entrepreneurs to be established while special requirements govern specific areas of activity. However, no requirement may apply to new types of businesses since they are not there yet);

to implement new business models.

It has been also observed that, while standards to support the development and dissemination of hi-tech solutions do not yet exist, there are standard-setting regulations and documents whose provisions are not up to modern R&D challenges and priorities, only to hold back the marketing of new products and services.

Apparently, there is a need to sort out what is wrong with the Russian law and how similar problems are addressed elsewhere.

1. Articulating the problem

By 2025, the international market for road transport telematics systems is forecasted to reach USD 12.7 trillion, the domestic market — USD 1.17 trillion. These forecasts are contained in the roadmap developed as part of the NTI project[1].

While social relationships relevant to the implementation of the Autonet Component of the National Technology Initiative are fairly diverse by their nature, they have been largely addressed by law. However, the active trend for digitization of practically all spheres of life [Khabrieva T.Ya., 2018: 5] and the use of modern ITC technologies require, as observed in legal literature, to amend the effective law [Khabrieva T.Ya., Chernogor N.N., 2018: 5] and — in a number of cases — adopt new regulations. This also involves the improvement of domestic law to encourage the development and marketing of hi-tech solutions to make sure that Russian companies hold dominant positions in the emerging global markets [Tikhomirov Yu.A., 2020: 5].

A number of issues are to be addressed at the supranational level under the EAU Treaty, impossible to solve within the framework of domestic law. These are primarily the areas subject to customs and technical regulation. Since the issues of security of transport vehicles themselves and related requirements are within domain of technical regulation, for the most part they cannot be regulated exclusively by national law. Hence, regulation of the Autonet component of the National Technology Initiative should take into account the EAU's technical documents including the Technical Regulation of the Customs Union "On the Security of Road Vehicles" effective since 1 January 2015.

2. Russian law regulating the Autonet and other data systems of road transport telematics

The current stage of human development involves an ever growing use of IT and ITC technologies in all spheres of life including road transport.

[1] Available at: URL: www.cnews.ru (accessed: 21.05. 2021)

The data systems based on the telematics principle (remote vehicle condition monitoring, tracking, reading technical parameters, generating technical reports) are already at work. These systems are a combination of GPS tracking technologies with onboard diagnostics systems, something which allows to monitor the driver's behavior, register equipment failures and finally make driving safer. The telematics for road transport has a theoretically unlimited potential, with a properly adjusted telematics network allowing to streamline the operation of emergency services, vehicle insurance system, organization of parking lots and road traffic system as a whole, and to identify the need in expanding the road infrastructure.

Telematics vehicle monitoring systems do not only make road traffic safer: they also make a good tool for raising investment due to their innovative edge and marketing prospects.

However, the regulation of vehicle telematics is still at the stage of inception both in Russia and elsewhere due to the sector's novel nature and a wide range of issues underlying the regulation of road transport telematics. These include road safety, technical condition of transport vehicles, streamlining and managing traffic flows etc. Social relationships involved in road transport telematics are themselves complex by nature. Hence specific blocks of telematics-related issues are already part of different programme documents, especially those regarding information and traffic safety.

Thus, making traffic safer to preserve life, health and property of individuals has been identified as a government priority[2] (2018-2024 Road Safety Strategy for the Russian Federation). The national security strategy also deals with traffic safety issues, with the following implementation principles identified:

priority for introducing new technologies to ensure traffic safety (intelligent transportation systems, global tracking, driving automation, active and passive vehicle security, other promising systems to dramatically improve the prevention and reduce the severity of traffic accidents);

planning and reviewing activities based on findings of ongoing monitoring of accident-prone traffic zones taking into account the risk factors acknowledged by the international expert community (driving at excessive

[2] Russian Government Resolution No. 1-r of 08 January 2018 "On Approving the 2018-2024 Road Safety Strategy for the Russian Federation". Available at: URL: http://www.pravo.gov.ru (accessed: 23.01.2018)

speed and in a state of intoxication, failing to use safety belts, child retention systems and devices, safety helmets etc.).

The National Technology Initiative announced in the President's Address to the Federal Assembly in 2014 was critically important for the development and dissemination of telematics systems for road transport[3]. Essentially, the National Technology Initiative is a programme of interventions to shape principally new markets and create an environment for Russia's global technological leadership by 2035 including in web-based telematics for road transport.

The National Technology Initiative's implementation involves, in particular, the improvement of the regulatory framework and the lowering of administrative barriers identified as a "general obstacle for economic growth, welfare and better performance of public and social institutions" [Zubarev S.M., 2018: 4].

As part of the National Technology Initiative, the Government adopted Resolution No. 535-r of 29 March 2018 ("Resolution No. 535-r") to approve an action plan/roadmap for improving the law and removing administrative barriers for the Autonet component of the NTI ("Plan") which concerns the transportation, logistics, tracking and telecommunications infrastructure, only to directly affect, as a driver of economic growth, other industries and economy as a whole.

Regulating the Autonet is expected to make sure that:

the technology of Big Data generated by road vehicles operated in Russia's territory is used and an infrastructure for collecting, processing, storing and making such data available via different communication channels is in place;

telematics technologies for transportation systems and intelligent onboard systems and related services are developed and made available in line with new and progressive business models, including to make traffic safer;

active driver-assist and autonomous driving technologies are developed and used in different economic sectors;

technologies are developed for higher accuracy and reliability of positional tracking and digital mapping.

[3] Presidential Address to the Federal Assembly of 04 December 2014 // Rossiyskaya Gazeta. 2014. No. 278.

Para 7 of Resolution No. 535-r provides for the development of a draft law to put in place a regulatory framework for efficient operation of the Autonet.

The draft law envisaged by the Plan is expected to provide a framework for the development and operation of data systems for road transport telematics, and to identify their legal status; introduce relevant definitions including with regard to collection, storage, processing and availability of data to be generated by transport vehicles operated in the territory of the Russian Federation. Maps for relevant data systems, legal regime, conditions of availability and the range of users of tracking data are critically important issues.

The envisaged draft law is not there yet. Specific provisions covering road transport telematics to various extent are contained in the aforementioned strategic documents as well as in other regulations[4]. Moreover, provisions to be taken into account in developing regulations for road transport telematics are contained in a number of federal laws[5].

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[4] Transportation Strategy of the Russian Federation for the period until 2030 approved by RF Government Resolution No. 1734-r of 22 November 2008; Presidential Decree No. 899 of 07 July 2011 "On approving priority areas for the development of science and technology in the Russian Federation and a list of critically important technologies"; Concept Note for Long-Term socioeconomic development of the Russian Federation until 2020 approved by RF Government Resolution No. 1662-r of 17 November 2008; 2017–2030 Strategy for the Development of Information Society in the Russian Federation approved by Presidential Decree No. 203 of 9 May 2017; 2020 Innovative Development Strategy for the Russian Federation approved by RF Government Resolution No. 2227-r of 8 December 2011; IT Development Strategy for the Russian Federation for the period of 2014-2020 and until 2025 approved by RF Government Resolution No. 2036-3 of 1 November 2013; 2020 Concept Note for the Development of Geodesy and Cartography approved by RF Government Resolution No. 2378-r of 17 December 2010; Cyber Security Policy of the Russian Federation approved by Presidential Decree No. 646 of 5 December 2016; Russian Government Order No. 1189-r of 03 June 2019 "On approving the 2019–2021 Concept Note for the development and operation of the national data management system and action plan ("roadmap") for developing the national data management system"; RF Government Order No. 1911-r of 28 August 2019 "On approving the Concept Note for the development of the integrated government cloud platform", etc. // SPS Consultant Plus.

[5] Federal Law No. 126-FZ "On Communications" of 07 July 2003; Federal Law No. 152-FZ "On Personal Data" of 27 July 2006; Federal Law No. 149-FZ "On Data, Information Technologies and Cyber Security" of 27 July 2006; Federal Law No. 16-FZ "On Traffic Safety" of 09 February 2007; Federal Law No. 170-FZ "On Motor Vehicle Inspection and Amending Specific Regulations of the Russian Federation" of 01 July 2011, etc. // SPS Consultant Plus.

While a dedicated federal law is not there yet, the definitions to be used in the Autonet component of the National Technology Initiative are being developed to some extent:

telematics control unit[6];

satellite tracking device[7];

secure software/services, industrial internet, internet of things, information society, cyberspace, cloud computing, big data processing, technology-independent software/services, digital economy[8];

vehicle condition monitoring sensors[9];

Moscow City intelligent transportation system[10];

intelligent transportation system[11];

road machinery tracking data, road machinery telematics data[12].

However, this is not enough. To implement para 7 of the Action Plan ("road map") for improving the law and removing administrative barriers in support of the implementation of the Autonet component of the National Technology Initiative, it is required to adopt a whole set of critical decisions, in particular, those defining the legal status (including the legal

[6] Moscow Government Resolution No. 780-PP of 03 December 2013 "On the State Information System "Integrated Regional Navigation and Information System of Moscow"// SPS Consultant Plus.

[7] Customs Union Commission Resolution No. 877 of 09 December 2011 "On Approving the Customs Union Technical Regulation "On Road Transport Safety"//SPS Consultant Plus.

[8] Presidential Decree No. 203 of 09 May 2017 "On the Strategy for Development of Information Society in the Russian Federation for 2017-2030" // SPS Consultant Plus.

[9] Federal Law No. 395-FZ "On the ERA-GLONASS State Automated Information System" of 28 December 2013 // SPS Consultant Plus.

[10] Moscow Government Resolution No. 597-PP "On the Intelligent Transportation System of Moscow" of 30 August 2017.

[11] Supreme Eurasian Economic Council Decision No. 19 of 26 December 2016 "On Guidelines and Stages for Implementation of Coordinated/Agreed Transportation Policies of EAU Member States"; RF Government Order No. 1-r "On Approving the 2018–2024 Road Safety Strategy for the Russian Federation" of 08 January 2018 [2], "GOST R 56675-2015. National standard of the Russian Federation. Intelligent transportation systems. Subsystems for control and monitoring of the condition of urban and regional motorways based on analysis of road machinery telematics data" (approved and made effective by Rosstandard Order No. 1635-st of 27 October 2015) // SPS Consultant Plus.

[12] GOST R 56675-2015 // SPS Consultant Plus.

principles for development, operation and use) of the Russian tracking and telematics service platform (RTTSP) which generates national statistical and analytical data ("big data") on both motor vehicles and road infrastructure, and other transport-related information, the legal regime of the data being obtained, as well as the legal status of data operators.

Solution to the said issues largely depends on the RTTSP status. It would be optimal and promising to assign to the RTTSP the status of a public information system. Under Article 2, Federal Law No. 149-FZ of 27 July 2006 "On Data, Information Technologies and Cyber Security"[13] ("Federal Law No. 149-FZ"), a data system is a combination of data contained in databases and of information technologies and hardware which process that data. Under Article 14 of the same Federal Law, public information systems will be developed, upgraded and operated in accordance with requirements envisaged by the national legislation on contract system for procurement of goods and services for public and municipal needs, or by the national legislation on public-private (or municipal-private) partnership, on concession agreements or — where the operation of state information systems is not financed from the budgetary system — by other federal laws.

Public information systems are developed and operated on the basis of statistical and other data provided by individuals (natural persons), entities, public authorities and local government bodies.

While Federal Law No. 22-FZ "On Navigation Activities" of 14 February 2009[14] does not have any definitions related to data systems, it contains provisions relevant for road transport telematics, in particular, on public navigation maps including those of motorways.

Legislation of constituent entities of the Russian Federation contains a definition of such data systems. Thus, under Moscow Government Resolution No. 780-PP of 3 December 2013 "On the State Information System "Integrated Regional Navigation & Information System of Moscow"[15], the information system called "Moscow Integrated Regional Navigation & Information System" ("RNIS") is a public data system for collecting, processing, storing and providing tracking and telemetric data ("monitoring data") on RNIS-registered vehicles equipped with GLONASS/GLONASS-GPS tracking devices ("telematics control unit") moving around Moscow,

[13] Russian Federation Code of Laws. 2006. No. 31 (part 1). Art. 3448.

[14] Ibid. 2009. No. 7. Art. 790.

[15] Moscow Mayor and Government Bulletin. 2013. Special issue. No. 31.

data on vehicle owners and persons operating them by virtue of the right to economic management, operational control or other legitimate basis ("vehicle owners"), as well as on telematics control units, transport vehicles and other information.

Under Leningrad Oblast Government Resolution No. 328 of 04 October 2013 "On Approving the Provision on the Regional Information and Navigation System of the Leningrad Oblast"[16], the regional information and navigation system of the Leningrad Oblast (RINS LO) is a distributed architecture public data system for data/navigation support of road transport and self-propelled machinery using GLONASS/GLONASS-GPS, including for data/navigation support of auto routes in the North-South and East-West transportation corridors that cross the Leningrad Oblast territory.

In accordance to Federal Law No. 149-FZ, a data system may be operated by a natural/legal person engaged in relevant business activities including processing of information contained in its databases. Para 5, Article 14 of that law specifies that, unless otherwise established by a decision to develop the public data system, the operating functions shall be carried out by the customer who has entered into a public contract for development of such data system. Moreover, the public data system shall be commissioned under a procedure established by the said customer.

Also, the provisions of Russian Federation Government Resolution No. 676 of 06 July 2015 which establish the requirements to the procedure for development, commissioning (de-commissioning) and operation of public data systems and further storage of the data contained therein have to be taken into account. These include, in particular, the following requirements to be complied with if executive authorities or private partners have taken steps to develop, commission, operate or de-commission such systems and to further store the data contained therein:

requirements to protection of data contained in such systems established, within their competence, by the federal executive authority for cyber security and by the federal executive authority for countering the technological intelligence and protection of technical data;

requirements to arrangements and steps for protection of data contained in the system;

requirements to personal data protection envisaged by part 3, Article 19, Federal Law "On Personal Data" (where the system collects personal

[16] Available at: URL: http://www.lenobl.ru (accessed: 14.10.2013)

data). These include, in particular, the requirements to physical storage of biometric personal data and technologies of their storage outside personal data systems.

The Autonet is an information system bound to store personal data. Hence, it is not just provisions of Article 19 but also general requirements of Federal Law No. 152-FZ of 27 July 2006 "On Personal Data" that have to be complied with. It is noteworthy that the data legislation is fairly dynamic, with major adjustments in respect of personal data currently pending. In particular, a draft law containing the definition of anonymised and fully anonymised personal data not subject to the personal data legislation has been already developed.

While the federal law does not contain any definition of an "information and navigation system operator", the regional law has the definition of an "operator". In accordance with Leningrad Oblast Communication and Information Committee Order No. 11 of 13 November 2018 "On Approving the Procedure and Amount of Transfer of Monitoring Data to the Regional Information & Navigation System of the Leningrad Oblast"[17], the RINS LO operator is an entity involved in operation of the Leningrad Oblast's regional information and navigation system including processing of data contained in its databases. Under Leningrad Oblast Government Resolution No. 328 of 4 October 2013[18], the RINS LO operator is the joint-stock company "Regional Navigation & Information Center of the Leningrad Oblast" (JSC RNIC LO).

Leningrad Oblast Communication and Information Committee Order (No. 11) also define a minimum set/amount of monitoring data to be transferred to the regional information and navigation system:

on-board navigation and communication device ID;

vehicle geographic latitude in WGS-84 coordinate system;

vehicle geographic longitude in WGS-84 coordinate system;

vehicle speed;

vehicle course;

vehicle location time and date print;

alert button on;

discreet input values.

[17] Available at: URL: http://www.lenobl.ru (accessed: 16.11.2018)

[18] Available at: URL: www.lenobl.ru (accessed: 28. 12. 2013)

A definition of the legal regime applicable to data has to take into account Presidential Resolution No. 163-rp of 18 May 2017 "On Approving the Plan for Migration to Domestic GPS Technologies". In the context of digital economy, this will require to reduce the restrictions on the availability and use of spatial data, and to provide for publication of specific categories of geospatial data.

Thus, while the Russian legislation contains a fair amount of provisions that regulate road transport telematics this way or another, there is no systemic legal regulation. This is why V.V. Putin, President of the Russian Federation, requested in Order No.Pr-77 of 14 January 2017 to develop "a national navigation telematic service platform" in Russia[19].

3. International experience of regulating road transport telematics

Internationally, regulation of road transport telematics is not adequately developed yet for a number of reasons including the novel nature of the problem, comprehensive nature of the resulting social relationships, and wide range of issues to be regulated, many of which are not relevant for many countries still. However, some countries have already made certain steps in this direction.

For lack of a single consolidated instrument to fully regulate the issues of road transport telematics, some countries (United States, Canada, Germany, etc.) have multiple regulations applicable this way or another. Under the general rule, a legitimate vehicle owner may have a tracking (geolocation) system installed. As a matter of principle, it is a right, not an obligation since nobody (except corporate carriers) is obliged to do so. At the same time, an illegally installed (not agreed by the vehicle owner) and operated GPS system (for example, tracking an already sold vehicle) is an offense.

The overall focus is that commercial carriers should have on-board recording devices installed[20] to enable monitoring of the following information:

[19] Action Plan ("roadmap") of the Autonet component of the National Technology Initiative (Annex No. 2 to minutes of Presidium of Council for Economic Upgrading and Innovative Development of Russia under the President of Russia. 24.04.2018). Available at: http://nti.one (accessed: 10.06.2021)

[20] Safety, compliance and reporting guidelines for commercial transportation. Available at: https://csa.fmcsa.dot.gov/About/Index (accessed: 15.09. 2020)

driver's name and position (corporate association);

total driving time over eight previous days;

driving in contravention of speed limits;

data on stops;

data on fuel reserves;

data on display of alarm signals for the driver.

Many countries actively develop a system of telematics-driven car insurance to basically make it easier for the insurer to identify a driver's style using the data retrievable from a telematic unit and thus to assess the risks involved. The driver respecting the speed limit, seldom using hard acceleration/braking, and turning at lesser angles can have better terms of insurance than those who practice aggressive driving.

Thus, it could be asserted that countries currently address specific, particular issues of road transport telematics while a systemic, comprehensive solution is not there yet.

4. Promising ways of regulating data systems of road transport telematics

Development of such segment as road transport telematics is a natural process of technological change giving rise to new objects of social relationships. Any new object of law should fit into the existing legal system and find its place in it, with the correctness and effectiveness of regulation depending on whether this place is right. There may be several ways of fitting a new object into the existing legal system. The first and probably the simplest way is where the existing legal provisions and institutions are fully applicable to the object given its properties; the second — where the existing regulation is not fully adequate to the new object of law, with the "alien" provisions and institutions still applicable to it; and, finally, the third — where provisions designed specifically for the new object of law are developed to take into account its legal nature and properties.

A different ratio between state regulation and deregulation of specific sectors is observed at different development stages of economic relationships depending on a host of factors. Deregulation may be due to a number of reasons. There may be social relationships that:

the government does not consider necessary to regulate it;

cannot be efficiently regulated by law;

cannot be regulated by law at all.

The boundaries between these groups are dynamic and subject to change as social relationships develop. Moreover, whether regulation is efficient or not and whether strict regulation is socially justified or not is one of the main criteria in choosing between different models affecting social relationships.

Undoubtedly, unless there is regulatory support, the Autonet component of the National Technology Initiative cannot be implemented in terms of operation of telematic transportation systems and introduction of new business models and advanced technological solutions. The emerging relationships concern the rights and interests of individuals, businesses and public authorities, with legal problems partially arising from a need to determine new rights and duties for various groups of parties to social relationships in data systems of road transport telematics, and to address the issues of responsibility, only to require regulation through legislation. Moreover, regulation should largely take place at the federal level as it bears on the rights and duties of the subjects to these relationships as well as on the issues of responsibility.

The social relationships involved in the development, operation and progress of the Russian navigation telematic service platform and its interaction with data systems of road transport telematics should become a core segment of regulation.

Conclusions

Telematic transportation systems now need to be regulated primarily to ensure they can interact with the Russian navigation telematic service platform for transfer and receipt of data between these systems and the platform within the established limits.

The telematic transportation systems currently emerging in Russia process diverse, voluminous, multi-party data. The issues of developing and operating the relevant data systems, defining the objectives and principles of their development and operation, determining the composition of data systems and of the parties to the relationships involved in their development and operation, their rights, duties and responsibilities should be addressed irrespective of these parameters.

It is critically important to define the data content, accumulation procedure and terms of accessibility of the system's resources as well as to identify ways for ensuring the security of data processed by the system including personal data.

There are apparently two main approaches to improving the law applicable to transportation telematics — comprehensive regulation and *selective* regulatory changes. Both approaches assume amending the legislation, removing regulatory gaps, in particular, identifying the legal regime applicable to the data generated by transportation telematics, and creating the conditions for efficient operation of the Autonet with uncompromising protection of personal data.

As applied to telematic transportation systems at this stage, both approaches are legitimate and have advantages of their own. In the future, the choice should invariably be for comprehensive regulation as it allows regulate relationships arising in the segment of transportation telematics by a single legal instrument. At the moment the weakness of this approach lies in inadequate development of the relationships in question and uncertainty of optimal solutions to arising problems since regulation is largely focused on what is not there yet, only to create a real risk of overlooking the problems to be addressed or choosing wrong options for lack of experience.

Selective regulatory amendments will allow to identify and promptly address the areas of concern. However, comprehensive regulation will be possible (and necessary) in the future with accumulation of experience and new knowledge.

It is already obvious that statutory regulation will ensure the development of an infrastructure for collection, processing, storage and availability of data to be generated, and solve the critical issue — who should be recognized as the owner of data — in particular, generated by the big data technology; something that will eventually determine who will have access to such data, on what terms and under what legal regime.

Moreover, other countries' best practices in respect of vehicle insurance are already available for judgment and applicable to the Russian Federation.

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Regulatory Principles of Development, Introduction and Use of Artificial Intelligence in Asian countries

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Abstract

The Eastern Asia region is emerging as a new centre of innovative development of information technologies and global digital economy. The digital transformation of socioeconomic and political existence of countries is inextricably linked to the development and adoption of new regulatory systems. The overall success of the digital transformation of economy and society is hinged on the introduction of specific groups of technologies. Identifying specific groups of technologies as the reference points of the digital transformation is equally sensible from a regulatory perspective. Artificial intelligence is a key technology for digital transformation of any country at large. This study purports to identify the main regulatory features of the development, introduction and use of artificial intelligence in Asian countries such as People's Republic of China, Singapore, Republic of Korea and Japan which are global digital leaders and which were chosen for this study on the basis of an analysis of independent ratings. A comparative study of the core regulatory provisions aimed at harmonizing social relationships arising from the development, introduction and use of artificial intelligence in the countries in question allows to propose possible ways of developing national regulation in respect of ethics and law applicable to AI. Based on the methodology of formal logical analysis and comparative law, the study allows to identify the essential regulatory principles of the development, introduction and use of AI in the selected countries. The findings point out a considerable similarity both at the level of strategic documents and codified regulatory principles, with the precedence for welfare of society and state. While some of the documents under study make references to human rights and individual liberties, the key idea is the achievement of prosperity and sustainable development of society. This approach is better suited to be replicated in the context of Russia. While all of the reviewed instru-

ments perpetuate a humanistic approach involving an assessment of AI's impact on users, society, environment, its interpretation in Asian countries differs from the one adopted in the Western world.

Keywords

law and ethics of artificial intelligence, comparative law, cyberethics, cyberlaw, law of the People's Republic of China, law of Singapore, law of the Republic of Korea, law of Japan.

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Background

One of many different approaches developed by the international practice to establish a regulatory system for digital economy is to identify social relationships and behavior of the entities to be regulated in the course of the development, introduction and use of specific technologies as a complex subject of regulation. In this regard, the technology of artificial intelligence is the one currently stirs up interest.

The development of artificial intelligence (hereinafter AI) is a national priority in many countries, with dozens adopting and implementing strategies and programmes to encourage studies and developments in this area. The introduction of intelligent technologies into the economy, welfare and governance has become a key point of public policies in many countries. Regulation of the emerging social relationships involved in the development, introduction and use of AI is a key issue in this area.

With the adoption of a national AI code of ethics, Russia is making its first steps in this direction. A study of the relevant international experience is needed to develop a regulatory system for the development, introduction and use of AI. Meanwhile, the currently available research papers are focused on Western Europe and North America whose regulatory approaches and principles applicable to AI are often ill-suited to the Russian context. Hence it is of major interest to review the existing regulatory principles of the development, introduction and use of AI in those Asian countries which are global leaders of the digital economy.

1. Digital economy and AI

Some researchers argue that the development of digital economy is hinged on the introduction of specific cross-cutting technologies. For instance, V.A. Vaipan considers the following technologies to be crucial for successful development of the digital economy: big data; neurotechnologies and artificial intelligence; shared register systems (blockchain); quantum technologies; new production technologies; internet of things; robotic and sensor components; wireless technologies (including 5G networks crucial for driverless vehicles); technologies of virtual & augmented reality [Vaipan V.A., 2019]. The author reasonably argues that successful digital transformation of economy and society is inextricably linked to the introduction of specific groups of technologies. These technologies are vital to realize a transition to a new socioeconomic order within the given time period.

Identifying specific groups of technologies as reference points of the digital transformation is also sensible from a regulatory perspective. The digital economy and stages of its development could be represented as a set of technologies to be applied to economic activities and various aspects of social life. This process of introduction and use gives rise to specific social relationships to be conventionally divided into macro-groups that are easier impacted by regulation.

Groups of technologies have common features and normally exhibit similar regulatory problems as regards social relationships emerging in the process of use. While cross-cutting technologies are not tantamount to the digital economy, the perception of the digital transformation through the lens of specific technological development will greatly simplify the understanding of ongoing changes. To have an idea of the digital transformation and how it splits into specific objectives, a simple model of technological change is required.

Using specific technologies as a backbone of the regulatory system's design will considerably simplify the task by reducing it to the development of systems or sets of provisions regulating the given groups of technologies. This approach will make legal collisions and contradictions much less likely to occur. In such a model, the areas of regulatory intervention are separated by being linked to specific cross-cutting technologies.

Many countries have adopted this particular model to drive and regulate the digital economy. They opt for a legal policy applicable to specific

technologies to be used rather than digital economy as a whole. Thus, many countries including global technological leaders have strategies for the development and introduction of artificial intelligence which often envisage a special legal regime to encourage R&D and investments into a specific cross-cutting technology.

Thus, in 2017 China adopted the New Generation Artificial Intelligence Development Plan[1] expecting to become a global leader in AI innovations by 2030 at the last stage of its implementation. By that time, the core AI sector is expected to more than double up to CNY 1 trillion (nearly USD 147 billion). The strategy also provides for improvement and review of the national regulatory system to address problems involved in the development and use of AI technologies [Roberts H., 2020]. Decomposing the digital economy into extended groups of social relationships involved in the application of specific technologies is thus one of the promising models for the development of regulatory policies.

Artificial intelligence is now believed to be a major breakthrough largely in advance of other cross-cutting technologies. It is a unique computing technology that already has a major impact on social relationships and is likely in the near future to radically transform social order across the board. It is logical to expect that a technology with so much social impact will change the regulatory sphere as well.

The widespread introduction of artificial intelligence will give rise to new social relationships. This is true not just for AI. The most important overall feature of information society and digital economy is the emergence of a new system of social relationships. In other words, the digital economy and information society make up a new system of social relationships arising from the use of computer data and ITC technologies. Thus, T. Ya. Khabrieva and N.N. Chernogor have identified 9 new types of relationships related to digitization [Khabrieva T. Ya., Chernogor N. N., 2018: 94].

We will start off by analyzing what artificial intelligence/intelligent system is from a technical point of view. What makes this technology stand out compared to others, only to affect the nature of regulation applicable to its use? The answer to this question will help to identify the limits of applicability of the instruments to be considered further. Definitions of artificial intelligence currently abound. Thus, some of the frequently cited studies

[1] Available at: https://flia.org/notice-state-council-issuing-new-generation-artificial-intelligence-development-plan/ (accessed: 12.07.2021)

define AI as the capability of a machine/device to imitate intelligent behavior [Padhy N., 2005: 23]. It means the behavior previously associated only with humans which ranges from perception of complex images to creativity.

Some Russian researchers underline that "an intelligent system is the one which can intentionally, depending on the state of data inputs, change not just operating parameters but the way of behavior as such, the latter depending not only on the current state of data inputs but also on the previous states of the system itself" [Yakushev D.I., 2016: 67]. This definition identifies one major feature to single out AI technology and systems from other computer-driven technologies and systems, the former being more self-determined and less dependent on unpredictability of input parameters than other computer systems.

I.R. Begishev and Z.I. Khisamova define AI as an adaptable, autonomous, cognitive intelligent system capable of conscious volitional behavior and allowing to imitate neuronal and neuronal network activities of human brain by processing environmental information [Begishev I.R., Khisamova Z.I., 2021: 25]. The said definition identifies many of the features proper of intelligent computer systems. Moreover, it narrows the concept of "intelligent systems" down to their specific implementation based on neuronal networks. While AI systems based on neuronal networks currently dominate, there are other ways of building intelligent systems such as knowledge-based systems [Aslamova E.A. et al., 2018] or evolutionary algorithms [Zaginaylo M.V., Fatkhi V.A.]. The definition proposed by these authors thus fails to cover all implementation approaches to the modern AI systems.

Meanwhile, the approach equalizing "neuronal networks" and AI is not off the mark. Since deep neural networks have been the most widespread approach to developing AI systems, they are indeed meant in most cases when reference is made to artificial intelligence. The technologies for digital imitation of the neural networking structure of human brain allow to successfully solve a variety of tasks, from imitating live human contact to driving a vehicle [Nikolenko S., Kadurin A., Arkhangelskaya E., 2020: 7–10]. A breakthrough in AI over the last decade owes itself precisely to neural networks.

Artificial intelligence based on neural networks is capable of solving many tasks more efficiently than man. There has long been a firm belief that artificial intelligence can never beat masters of Go since the moves in board games of this type cannot be anticipated, with possible combinations

outnumbering atoms in the Universe. Meanwhile, a trained intelligent machine was able to beat several world champions. Rather than programmed to play in the ordinary way, the AI system learned to master Go by repeatedly playing itself a game — in fact 29 million times to achieve complete superiority over human champions [Silver D., 2017].

In doctrine the process of AI development is most often understood as programming, which is wrong. Intelligent systems based on neural networks are not programmed but learn using either the data they generate or interactions with similar systems. Programmers will only design their architecture, run tests or verify the results. The behavior of a system is predictable only with some probability. A wrong understanding of the development process and operating parameters of AI systems makes it difficult to draft adequate regulatory provisions.

For instance, some Russian researchers believe that a robotic algorithm is developed by man even in case of AI and self-learning neural networks [Vasiliev A.A., Ibragimov Zh. I., 2019: 51]. Others [Vasiliev A.A., Pechatnova Yu.B., 2020: 17] argue that regulation of "programming errors and their implications" is the crucial issue of using intelligent computer systems.

For the purpose of this study, an AI system is defined as a computer system or software which imitates one or more aspects of intelligent behavior and which is more self-determined and independent from the developer's (user's) will than other computer systems. Some intelligent systems are capable of (self) learning and are to some extent non-predictable and non-transparent to their developers and other users.

The specific features of AI technology determine the unique nature of social relationships arising from its use, only to require a special approach to regulation in this area.

2. Asian countries as global AI leaders

It is only recently that Russia put forward claims for leadership in this area, with the first attempts to develop the relevant regulatory framework embodied in the national AI code of ethics which was developed through cooperation between major IT companies, public agencies and academics community[2]. This document has not only defined the core principles of AI

[2] AI Code of Ethics Signed in Russia. Available at: URL: https://rg.ru/2021/10/26/v-rossii-podpisan-kodeks-etiki-iskusstvennogo-intellekta.html (accessed: 16.02.2021)

regulation but also established the requirements to development and use of intelligent systems to be complied with. Though Russia has achieved a considerable success in digitization, the country is not among global leaders yet.

A review of the relevant international experience may considerably help to evaluate the potential for application of the national regulatory policies and options for its development. For a study of regulatory mechanisms applicable to AI, it is of major interest to examine the experience of countries at the top of independent digitization ratings since this analysis would allow to identify promising ways to develop the national regulatory framework for AI.

The experience of Western Europe and North America has been extensively described in Russian and international scholarly literature. For this reason, it is the countries of Asia taking a lead in one or more indicators relevant for the digital economy that were selected for the study. The selection was made on the basis of their ranking in global competitiveness ratings published under the auspices of the World Economic Forum in its Global Competitiveness Reports of 2019[3] and of 2020[4].

Singapore ranks third in the said ratings in terms of regulatory development related to digital economy while being among top ten countries in terms of many digitization-related criteria. China, with its largest digital services market, is also a leader in digitization along with South Korea (top ranking in ICT adoption and top ten in digital infrastructure, innovation capability and macroeconomic indicators of digital transformation) and Japan (top ranking in human capital development, top ten in GCI 4.0, digital services market, digital infrastructure and also innovation capability). Thus, the analysis will focus on Asian digitization leaders with a global level domination.

Moreover, regulation of the digital sector follows a different philosophy in Asia. In Eastern Asia, digitization is regulated on the basis of altogether different cultural principles and paradigms. The West is trying to strike the right balance between commercial use of data and common good arising from the protection of privacy and personal dignity. According to the

[3] World Econ0mic Forum. The Global Competitiveness Report Insight Report 2019. Available at: http://www3.weforum.org/docs/WEF_TheGlobalCompetitivenessReport2019.pdf (accessed: 12.01.2021)

[4] Ibid. 2020. Available at: http://www3.weforum.org/docs/WEF_TheGlobalCompetitivenessReport2020.pdf (accessed: 24.05.2022)

Western ideology, machines cannot be completely independent as this is a human prerogative. Eastern Asia will often put common good first due to Confucian, Buddhist and animist traditions. Far from being in opposition, man coexists with nature, surrounding things and other people in a harmonic way [Kokuryo J., 2022]. State or nation is often perceived as a meta-family to share personal data with, a family from which there could be no secret. This is probably why these countries are successful in terms of ITC development in general and AI in particular.

3. Strategic planning standards for AI development

The countries under study have adopted strategic documents defining the AI development for decades ahead. They reflect the national political and economic context this way or another. Thus, China adopted in 2017 the New Generation of Artificial Intelligence Development Plan in support of its claims for the global technological leadership[5]. Under the plan, AI is a technology to transform the life of each human being and the world as a whole, the main objective being to secure a national leading edge in the area of AI development, introduction and use.

The Chinese strategic plan refers to AI technology as a driver of economic development and a new catalyst of industrial transformation to be focused on by the government. It is explicitly stated that major changes to AI-related policies and regulations are required to achieve success.

The AI development strategy puts forward four basic principles reflecting the peculiarities of China (para II B), one of which being absolute technological leadership to secure the country's domination elsewhere thanks to success in AI. Moreover, under the AI development principles, any achievements in civil use are to be made available to the government for military use.

Under the strategic plan, China is expected to achieve global leadership in both theoretical and practical studies of artificial intelligence by 2030. By this time the *Heavenly Empire* should become a global leader in AI applications and a driver of AI innovations. The said achievements are necessary to secure China's leading edge in economic and innovative development. By 2030, China expects to develop a system of regulations, ethical basis and comprehensive policies applicable to AI (IIC).

[5] Available at: https://flia.org/wp-content/uploads/2017/07/A-New-Generation-of-Artificial-Intelligence-Development-Plan-1.pdf (accessed: 16.07.2022)

Not claiming for itself a global technological leadership, Singapore has a strategic plan focused on four specific AI applications. The AI development at the national level is regulated by the Singapore National AI Strategy[6] whereby the country should become a global center for the development, testing, introduction and scaling of AI solutions. The document's focus is on economic transformation and higher living standards through the introduction of AI systems rather than on global domination in intelligent technologies.

Under this strategy, the transformation will be driven by five national AI projects, each addressing Singapore's key integrated socioeconomic objectives. The first project called *Intelligent Cargo Planning* purports to streamline air, sea and road cargo traffic across the country, its performance indicators being higher productivity of businesses and higher efficiency of the national economy. This focus is crucial since Singapore is a major transportation hub in Asia.

Singapore has been at the top of international ratings of smart city solutions for several years in a row. As the country boasts to be the smartest city nation[7], the second nationwide AI project is focused on "uninterruptible and efficient municipal services" to be made more accessible, reliable and modern.

The third nationwide AI project is for "prevention and treatment of chronic diseases", with intelligent systems, according to the strategy's text, to increase the efficacy of prevention and diagnostics of chronic diseases. It is also expected to use AI for reducing the cost of treatment. The project assumes that AI could be widely used for analysis of clinical data, medical images, genome data and health-related behavioral aspects. As applied to health, AI should result in increased life expectancy, lower costs and higher quality services.

The fourth nationwide project is focused on "individual education through adaptive learning and skills assessment". Singapore is a recognized regional leader in education, its two main universities sustainably being among top three of the Asian university rankings[8]. The fourth initiative

[6] Available at: https://www.smartnation.gov.sg/files/publications/national-ai-strategy.pdf (accessed: 16.07.2022)

[7] Available at: https://www.smartnation.gov.sg/about-smart-nation/our-journey/achievements (accessed: 16.07.2022)

[8] Available at: https://www.qschina.cn/en/university-rankings/asian-university-rankings/ (accessed: 16.07.2022)

purports to help teachers increase the learning efficiency of each student individually through the use of AI solutions. Since the country attempts to secure for itself a better position in the international market for education services, this objective is also a priority.

Despite Singapore is a global center open to international travel, the authorities pay much attention to security of its borders, with border control as the fifth key project of the national AI strategy. Its implementation is expected to result in more secure borders and better quality services offered to tourists. One of the project's objectives is to make border control fully automatic and monitored by intelligent systems.

Singapore has not adopted a specific strategy for AI regulation, its national strategy containing only one relevant provision — para 4.2 stating "the intellectual property regulation will be reviewed to make sure Singapore's laws support the development and marketing of new AI technologies"[9]. Transparent and clear legislation is expected to attract investment and assure the country's tech entrepreneurs.

The Korean Government announced the adoption of the National Strategy for Artificial Intelligence in 2019[10] to define the development of AI in Korea until 2030. By this time, the country is expected to rank third in terms of digitization and to successfully compete with global IT leaders such as China, Germany and Japan are repeatedly mentioned in the strategy for comparison. In stressing global importance of AI technologies, the document emphasizes the peculiarities of Korean digital economy. Practical steps for achieving the strategic objectives include the development of ethical standards, promoting and building confidence in intelligent technologies in society, creating an AI learning support center for data protection, encouraging R&D, and creating new jobs in skills required for effective development and use of AI. The strategy has 100 nationwide objectives divided into 9 strategies and 3 areas — AI ecosystem, AI use, human-centric AI — with the following three main objectives to be achieved by 2030:

making South Korea more competitive internationally in the area of digital technologies;

[9] Available at: https://www.smartnation.gov.sg/files/publications/national-ai-strategy.pdf (accessed: 16.07.2022)

[10] Available at: https://www.msit.go.kr/eng/bbs/view.do?sCode=eng&mId=10&mPid=9&pageIndex=&bbsSeqNo=46&nttSeqNo=9&searchOpt=ALL&searchTxt (accessed: 25.07.2022)

achieving full-fledged use of AI in various sectors (e-government, industry, health, etc.);

improving the living standards through the use of AI.

The Korean strategy follows an approach similar to that of Singapore. It is planned to make AI hardware and software more competitive by "identifying and focusing" on the areas where the country can achieve success and a leading edge. Moreover, it is expected to support both fundamental and applied AI studies, that is, to actively develop education and research relevant for intelligent technologies.

In Japan the main strategic document is the Social Principles of Human-Centric AI)[11]. Adopted in 2019, this instrument does not only provide a strategy but also contains ethical principles and standards to govern the introduction of AI. The strategy is based on the following principles:

AI-ready society — social changes needed to realize Society 5.0;

Human-centric AI.

To make society AI-ready, Japan should move in this direction jointly with the national government and related industries and businesses. Under the strategic document, its principles should become part of public policies. Moreover, Japan should promote these principles internationally and take leadership in international discussions to create AI-ready societies worldwide.

The strategy's provisions, while not considered as regulations, determine the development path of the country's regulatory framework. Strategic documents also identify social and political priorities to affect nationwide regulatory development. The said documents define the structure and content of future codes of ethics and often provide a basis for regulatory formulas and definitions.

4. Regulatory principles and framework of AI development, introduction and use

Some countries have recently taken steps at the national level to formulate the general principles and provisions for AI regulation in various forms.

[11] Available at: https://www8.cao.go.jp/cstp/english/humancentricai.pdf (accessed: 24.07.2022)

Russia is also among such countries, with the AI Code of Ethics mentioned above. The jurisdictions under study do not have universal regulations governing AI. However, Singapore, China, Republic of Korea and Japan have adopted soft regulation in the form of so-called AI codes of ethics.

In 2021, China's Ministry of Science and Technology adopted the New Generation Artificial Intelligence Ethics Specifications[12]. It was stated as part of its General Principles that the purpose was to introduce ethics into lifecycle of AI development and use, with its normative rules serving to promote fairness, justice, harmony, safety and security, and to prevent problems such as prejudice, discrimination, invasion of privacy and data leakage[13].

These rules apply to natural and legal persons, as well as no-profit entities and government agencies involved in AI-related activities including governance, R&D, procurement and application. The document details each type of AI-related activities. Governance refers to strategic planning, drafting and implementation of policies, regulations, rules and technical standards, as well as resource allocation, supervision and inspection. R&D mainly means research and development of AI-related technologies and products. Procurement regards production, operation and sale of AI products/services while use basically means purchase, consumption and marketing of intelligent products and services.

The Chinese AI code of ethics also enshrines the following ethical standards and principles, including:

Enhancing the well-being of humankind.

Promoting fairness and justice.

Protecting privacy and security.

Ensuring controllability and trustworthiness.

Strengthening accountability.

Improving ethical literacy.

The first principle means that AI-related innovations and applications should be human-centric, with the code and its underlying provisions being focused on the needs, values and rights shared by all people. The text

[12] Available at: https://opengovasia.com/china-develops-code-of-ethics-to-regulate-artificial-intelligence/ (accessed: 16.07.2022)

[13] Available at: https://ai-ethics-and-governance.institute/2021/09/27/the-ethical-norms-for-the-new-generation-artificial-intelligence-china/ (accessed: 16.07.2022)

makes a special point of the need to observe national and regional ethical standards. In line with the Confucian tradition, it requires to adhere to the priority of public interests. Other elements of the East Asian culture are visible in the duty to promote harmony between man and machine, and to strengthen the feeling of happiness.

The provision on improving ethical literacy is a principle rarely found in national codes of ethics. The code requires to actively study and mainstream the knowledge related to AI ethics, gain an objective insight into ethical problems, and keep from under- or overestimating ethical risks. It is stated that there is a need to hold or participate in discussions of AI-related ethical problems, as well as to raise awareness on issues of AI ethics and governance.

In Singapore, the main document addressing AI law and ethics is the Model AI Governance Framework[14]. Published by the PDPC (Personal Data Protection Commission), it contains the guidelines followed by a majority of Singapore's AI developers. The document's second edition was presented at the annual meeting of the World Economic Forum in Davos, in January 2020[15].

The standards and principles stated in the Model AI Governance Framework are discretionary. The document provides advice on issues to be discussed when assessing specific applications of AI technology and possible confidence-building steps. The Model AI Governance Framework also recommends reasonable steps to bring in-house policies, structures and processes at private companies and public agencies in line with existing data governance and protection practices. Despite the Framework's non-binding nature, many companies in Singapore have undertaken to adhere to its standards and principles. Many tech companies also implemented the document's standards into corporate bylaws by making discretionary guidelines binding on their staff.

As stated in the Model AI Governance Framework, all regulations applicable to AI relationships should rely on the following two principles: AI should be explainable, transparent and fair); AI should be human-centric). To describe the first principle, the document makes use of three attributes at once: explainable, transparent and fair. Many guidelines and regulations

[14] Available at: https://ai.bsa.org/wp-content/uploads/2019/09/Model-AI-Framework-First-Edition.pdf (accessed: 25.07.2022)

[15] Available at: https://www.pdpc.gov.sg/-/media/Files/PDPC/PDF-Files/Resource-for-Organisation/AI/SGModelAIGovFramework2.pdf (accessed: 31.07.2022)

refer to the said attributes as specific principles underlying the use of AI [Floridi L., Cowls J., 2021]; [Engstrom D., Ho D., 2020].

The human-centric attribute enshrined in the code has to be clarified. Under the text, the AI governance rules should primarily take into account human nature, rights and liberties, human needs and creative potential. It means that the rules to be enshrined in a regulation should be for the benefit of people in the first place. An emphasis on this principle is questionable. The human-centricity, as observed by many researchers in Russia and elsewhere [Chesterman S., 2020] is an a priori attribute of any social rules, both ethical or legal.

The explainable attribute reflects to what extent AI is understandable to an outside observer. As applied to regulation of social relationships arising from AI use, it primarily means understanding of AI decision-making processes by society.

Transparency is an AI attribute close to some extent to *explainable* since it also means that society should be able to exercise control over the functioning of an intelligent system. As an AI attribute, transparency could be understood in two ways: legal transparency (accessibility of programme codes despite the intellectual property or commercial secret regimes enshrined in the national legislation) and algorithm transparency (understanding how the algorithm works).

Fairness as an AI attribute often means that decisions made by intelligent systems will be free from discriminatory human prejudice of various kind which in scholarly literature and regulatory documents is equivalent of discrimination based on race, culture, gender [Gentzel M., 2021].

The Framework explains that human centricity means AI should be used to amplify capabilities, protect the interests and ensure well-being and safety of man. These considerations are of primary concern in the design, development and deployment of AI in Singapore. This list of attributes rather reminds of human-centric or humanistic approach also mentioned in the Chinese AI Code of Ethics.

Singapore does not just declare the principles of AI ethics but also creates the tools to make them real. On 25 May 2022, the Infocomm Media Development Agency (IMDA) and Personal Data Protection Commission (PDPC) announced the creation of AI Verify, the world's first AI governance testing system intended for companies willing to demonstrate compliance with AI ethical principles in an objective and verifiable way. This

development designed to make AI-based IT products more transparent is now at the minimum viable product stage (MVP)[16].

Developers and owners can test the declared performance of AI systems on standardized texts in accordance with a set of principles. AI Verify brings together a mix of open-code testing solutions including process audits as a convenient self-assessment toolbox. This toolbox will generate reports for developers, managers and business partners covering the main aspects affecting AI performance.

The approach boils down to testing products for compliance with the Model AI Governance Framework. Testing applies to AI attributes such as transparency (compliance with stated outcomes, understanding decision-making processes, and absence of unintended bias), safety, system sustainability, performance tracking capability. This system is actually an intelligent technology for autonomous check for compliance.

In December 2020 the Ministry of Science and ITC jointly with the Korean Information Society Development Institute have presented the AI Standards of Ethics, a summary of the key principles and requirements to AI technologies, at the meeting of the Presidential Committee on the Fourth Industrial Revolution[17]. The document contains 2 core principles and 10 requirements to AI systems to be developed and introduced.

The core principles enshrined in the document are: human dignity — human life has the highest value, AI should be designed and used in a way not harmful to physical and psychic health of man; public utility — AI should be used to achieve the maximum well-being for everyone and ensure protection of vulnerable groups which may be isolated from information society because of their status; viability — the use of AI should correspond to purposes and intentions of the activity field for which it was designed and to comply with ethical standards.

In Japan, the AI ethics is regulated by the Social Principles of Human-Centric AI)[18]. While the document assumes that the introduction of new

[16] Developing the MVP for AI Governance Testing Framework. Available at: https://www.pdpc.gov.sg/news-and-events/announcements/2021/07/developing-the-mvp-for-ai-governance-testing-framework (accessed: 24.07.2022)

[17] Available at: https://www.korea.kr/news/pressReleaseView.do?newsId=156428773 (accessed: 24.07.2022)

[18] Available at: https://www8.cao.go.jp/cstp/english/humancentricai.pdf (accessed: 04.07.2022)

ethical principles will lead to the realization of society 5.0, the regulatory principles to be introduced should rely on a new philosophy.

The philosophy of society 5.0 is underpinned by three core values. *Dignity*: under the Japanese code of ethics, the new society will have respect for human dignity. People cannot be overly dependent on AI while the technology cannot be used to control human behavior through the excessive pursuit of convenience and efficiency. Using AI as a tool, it is proposed to construct a society where people can better demonstrate various human abilities: show greater creativity, engage in challenging work, and live richer lives both physically and mentally. This principle to a large extent echoes the statements of other digitization leaders in Asia (China, Singapore, Korea).

Diversity and inclusion is another principle which assumes that people with diverse capacities, characteristics, backgrounds can pursue their own well-being. While the principle is rather an ideal, the document puts it forward as an objective for the realization of society 5.0. People of diverse backgrounds, values and ways of thinking should be able to pursue their goals. The first two principles of society 5.0 echo the principles of human-centricity stated in AI code of ethics of China and Singapore. The same principle is enshrined in a majority of Western regulations of AI.

The third principle of society 5.0 philosophy is sustainability. AI should be used to create a range of new businesses and solutions to resolve social disparities and develop a sustainable society. There is a need to address global environmental problems and climate change. The sustainable development concept is widespread and now makes part of many strategic documents at the international level, one of the best known being the Sustainable Development Goals published by the United Nations[19]. Judging by its text and explanations of this principle, the Japanese code echoes the UN SDGs. It also has obvious links to the Confucian concept of social harmony and animistic ideas of universal connection.

Conclusion

The analysis shows a considerable similarity of AI regulatory principles in states studied both at the level of documented strategies and codified regulatory principles, with well-being of society and state as the predominant vec-

[19] Available at: https://www.un.org/sustainabledevelopment/ru/sustainable-development-goals/ (accessed: 24.07.2022).

tor. Despite that certain documents under study refer to human rights and individual liberties, the key idea is pursuit of prosperous and sustainable society. This approach is better suited to be replicated in the context of Russia.

In Asia man is conceptually regarded as an object rather than subject (which is less true for Singapore). All documents under study are based on the humanistic approach providing for an assessment of AI impact on users, society and environment, something that should not deceive unsophisticated readers. First, this humanism towards man is passive. While developers have an obligation to make technology humane, the authorities have the right to control this process. Second, the priority is prosperous society, not man. This Asian humanism is considerably different from what is enshrined in codes of ethics in Western Europe and North America.

At the same time the humanistic approach stated in Asian countries marks a step towards people and their needs. It welcomes solutions that do not harm but improve the life of people and society [Xu L., 2020]. Moreover, as some authors rightly note, the introduction of any technology is a step towards dehumanization by default [Oviatti S., 2021: 278–287]. Technologies replace and oust man from decision-making by reducing human understanding and control of events. Hence, it is necessary to enshrine this principle since any technology is knowingly anti-human, unless its developers and operators are forced to apply it with a view to man and human values, liberties and needs.

The potential connecting link between the Western and Eastern approaches is protection/safeguard of human dignity. Despite different priorities and objectives all national codes of ethics make a point of safeguarding human dignity this way or another, with human needs, abilities and characteristics to be taken into account in developing and using AI.

In addition, responsibility for the caused damage is also a point in common. While the concept of individual responsibility before society and state undoubtedly exists in the West, Eastern societies make a focus on being loyal and responsible to one's family or even strangers. Despite significant cultural differences, developers, owners or other persons involved in AI operation should be responsible for their actions.

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Comment

Review
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Key Issues in the Intellectual Property Court's Presidium Rulings

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Abstract

The comment reviews key positions in the rulings of the Presidium of the Russian Intellectual Property Court (IPC) issued between January and March 2022. This Chamber hears cassation appeals against the decisions of the IPC first instance and deals primarily, but not only, with matters of registration and validity of industrial property rights. Therefore, this review predominantly covers substantive requirements for patent and trademark protection, as well as procedural issues both in the administrative adjudicating mechanism at the Patent office (Rospatent) and at the IPC itself. The current review encompasses a variety of topics related to trademark law, such as the assessment of the risk of confusion, invalidity grounds based on a prior well-known trademark or on an appellation of origin, the application of art. 6.septies of the Paris Convention, early termination of the legal protection of a trademark, unfair competition. This review also highlights several procedural points, such as the suspension of administrative proceeding in parallel trademark litigation and the limits of a third party's intervention in patent invalidity proceedings. Regarding patents, the review deals with prior art, encompassing unpublished patent applications, and the rules for determining claims' features.

Keywords

trademarks. appellations of origin, patents, unfair competition, invalidity procedure, early termination, agent, risk of confusion, well-known trademarks.

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I. Trademarks

1. A Trademark Counterposed to an Appellation of Origin

The tests of a sign, sought to be registered as a trademark, for confusing similarity to an appellation of origin based on Article 1483.7 of the Civil Code of the Russian Federation (hereafter CC RF) include no check of the respective goods' similarity.

The semantic criterion is sufficient for assessing the degree of similarity between a figurative sign and a verbal one. Even where not all similarity tests (graphic, sound, and semantic) are applicable, comparative assessment of any signs that can be registered as trademarks is still required. Similarity between two signs may be found irrespective of whether there is corresponding similarity on all the criteria.

The risk that ordinary consumers can confuse a verbal sign with a figurative one only exists where the word or phrase constitutes an exhaustive, obvious and natural name of what is depicted (which suggests itself without any conjecture or indirect association).

Consent of the proprietor of an appellation of origin to the registration of a trademark that includes a sign similar to the appellation of origin cannot remove the impediment to the registration of that trademark in the meaning of CC RF Article 1483.7.

IPC Presidium Ruling of 18 March 2022 in Case No. SIP-714/2020

The Disputed Sign

Rospatent denied registration of a combined sign with the words ТУЛЬСКАЯ ЯГОДА (Tula Berry [Company]) as it failed to meet the requirements of CC RF Article 1483.7. In particular, the ТУЛЬСКИЙ САМОВАР (TULA SAMOVAR) was counterposed to the disputed sign. The applicant's ensuing challenge against that decision of Rospatent was dismissed as well.

The applicant applied to the IPC for the invalidation of Rospatent's latter decision.

The first instance judgement, upheld by the cassation instance, dismissed the claim on the following grounds:

The first instance court found the verbal elements of the disputed sign to be weak and the figurative element to be a strong one. The court found the strong figurative element of the claimed sign semantically identical to the strong SAMOVAR verbal element of the appellation of origin and concluded that those identifiers were generally similar. As the above signs' strong elements were identical in terms of semantic meaning, while non-comparable on other criteria established by law, the first instance court found a high degree of similarity.

Given the lack of legal need to assess the degree of similarity between the goods and services identified by the claimed sign and by the appellation of origin, the court established that Rospatent's final conclusion regarding confusing similarity of the signs compared was well-founded.

The court bore in mind that the methodology for assessing the risk of confusion between trademarks in public circulation was defined by the Rules for Drafting, Filing and Examination of Documents that are Grounds for Legally Significant Actions Leading to State Registration of Trademarks, Service Marks and/or Collective Signs, approved by Order 482 of the Ministry of Economic Development of Russia, and by Para. 162 of Resolution of the Plenum of the RF Supreme Court No. 10 dated 23 April 2019 'On Application of Title Four of the Civil Code of the Russian Federation' (hereinafter referred to as 'Resolution No. 10'). The same methodology is used to assess the risk of confusion between trademarks and appellations of origin, but without taking into account the degree of the goods' similarity.

CC RF Article 1483.7 does not restrict comparing any trademarks with any appellations of origins. A finding on similarity between signs hinges on the risk of associative links between the signs being compared emerging in ordinary consumers' minds.

Where not all the similarity tests (graphic, sound, and semantic) are applicable, comparative assessment between any signs that can be registered as trademarks is still needed. Similarity between two signs may be found irrespective of whether there is corresponding similarity on all the criteria.

The said criteria are only used to establish the risk of confusion between signs, which may also exist where similarity is low or non-existent by some criteria but quite strong by another criterion. In this connection, verbal and figurative signs may also be subject to comparative analysis.

Only a semantic similarity test can be used to assess the degree of similarity between a figurative sign and a verbal one.

A figurative sign and a verbal one may only be found confusingly similar where a consumer reading the verbal sign will develop a lasting association with the figurative sign, which will grow stronger if the signs compared are (sought to be) registered for identical goods and/or services.

The risk of ordinary consumers confusing a verbal sign with a figurative one only exists where the word or phrase constitutes an exhaustive, obvious and natural name of what is depicted (which suggests itself without any conjecture or mediate association).

A similar approach to comparing figurative and verbal signs is suggested in the practice of the European authority (Para 3.4.4.5 of Part 4, Section B of the EU Trademark Examination Guidelines approved on 10 March 2016) and in Para 2.479 of the WIPO Guide (Publication No. 489, 2004). The same approach is used in the decisions by the IPC Presidium in Case No. SIP-146/2016, dated 09 December 2016, and in Case No. SIP-965/2019, dated 18 January 2021.

In respect of the argument that the first instance court misused the rule in CC RF Article 1483.7 as the proprietor of the appellation of origin saw no actual confusion between the sign and the identifier counterposed, the IPC Presidium noted the following:

Unlike CC RF Article 1483.6.5, Article 1483 of the same Code ignores the consent of the appellation of origin as a circumstance that removes the respective impediment to the registration of the said sign as a trademark.

Where an identical or similar appellation of origin is counterposed to a trademark, CC RF Article 1483.7 provides for the registration of the trademark if the following conditions are met:

the appellation of origin is included as a non-protectable element in a trademark being registered in the name of the person who possesses the exclusive right to the appellation; and

the trademark is being registered in respect of the same goods that the appellation of origin has been registered to identify.

Thus, for a trademark to be registered, the trademark registration applicant must become the proprietor of the appellation of origin first rather than one or more proprietors of the appellation give their consent.

As it follows from the facts of the case, the company is not the proprietor of the appellation of origin. Nor is the other condition met in the case under review, for the element meaning 'samovar' is protectable in this case.

2. A Trademark Registered Upon an Agent's Application

The provisions of CC RF Article 1512.2.5 and Article 6.septies of the Paris Convention apply to trademark registration applied for by an agent/representative, even if registration is effected in another person's name.

A buyer or client cannot be considered an agent or representative for the purposes of application of CC RF Article 1512.2.5.

Early termination of legal protection of a trademark does not preclude challenging the registration of that trademark.

IPC Presidium Ruling of 05 March 2022 in Case No. SIP-244/2020

The Disputed Trademark

Baltic Trade Company, LLC applied for the registration of a combined sign as a trademark (the disputed trademark).

The rights to the registration of the trademark upon the said application were eventually transferred to a foreign entity, Ballinger Limited (UK), in whose name the trademark was registered. The exclusive right to the trademark was subsequently transferred to another foreign entity, Benton Marketing Limited, Belize, under a contract of alienation of the exclusive right to the trademark.

The ABC Design company challenged the granting of legal protection to the disputed trademark in its entirety on the grounds that it had been regis-

tered in violation of Article 6.*septies* of the Paris Convention. The company pointed to the existence of agency relations between itself and the Baltic Trade Company on the date when the registration of the disputed trademark was applied for.

After examining the challenge, Rospatent dismissed it and decided to uphold the legal protection of the disputed trademark. In so doing, the authority bore in mind that ABC Design had not proven that it did have agency relations with the Baltic Trade Company.

ABC Design went to the IPC to have the said Rospatent decision overruled. The first instance court granted their claim and required Rospatent to re-consider the challenge.

The first instance court noted that Rospatent had not assessed the entire body of evidence to find out whether the Baltic Trade Company, that applied for the registration of the disputed trademark, was acting as ABC Design's agent/representative in selling its goods in the Russian Federation, and whether the evidence confirmed that the said entity was circulating ABC Design goods, as an intermediary, in the Russian Federation.

The first instance court proceeded from the fact that it was registration of a trademark applied for by the agent, not just done in the agent's name, that was material for checking whether legal protection had lawfully been provided to the disputed trademark under Article 6.*septies* of the Paris Convention.

Rospatent appealed on points of law to the IPC Presidium, pointing to the following facts in particular:

In Rospatent's opinion, the first instance court should not have found ABC Design interested in filing the challenge under CC RF Article 1512.2.5, because, by the date of examination of the case on its merits, the legal protection of the disputed trademark had been prematurely terminated due to the liquidation of the proprietor, and an entry to that effect had been made in the State Register of Trademarks and Service Marks of the Russian Federation.

On the other hand, the IPC Presidium disagreed with that argument of Rospatent, for to challenge the granting of legal protection to a disputed trademark is an interested person's lawful right, and invalidation of the legal protection granted to a trademark has legal consequences different from those of the liquidation of its proprietor.

The IPC Presidium found the first instance court to have properly held that the fact of liquidation of the current proprietor could not hinder the examination of ABC Design's challenge. The reason was that, as specified in Para 139 and 174 of Resolution No. 10, persons believing that the legal protection of a trademark must be cancelled since granted — e.g., defendants to a claim based on the use of the trademark before its legal protection was terminated, — may be interested in contesting trademarks whose legal protection has been discontinued for the future only.

Upon checking the grounds for Rospatent's argument that the presence or absence of agency relations between ABC Design and the Baltic Trade Company played no significant roles in determining whether the granting of legal protection to the trademark was in line with Article 6.*septies* of the Paris Convention and CC RF Article 1512.2.5, the IPC presidium noted the following:

In Rospatent's perspective, the granting of legal protection to a trademark may be found invalid on the grounds of Article 6.*septies* of the Paris Convention and CC RF Article 1512.2.5, only if such a sign was actually registered in the name of an agent or representative of a person that owns an identical or confusingly similar trademark in a State Party to the Paris Convention, therefore the filing of the application by an agent or representative of such a person is immaterial if the rights have eventually passed to another person.

Indeed, the provisions of CC RF Article 1512.2.5 are so worded that legal protection provided to a trademark may be contested and fully invalidated for the entire duration of the exclusive right to the trademark, if granted in the name of an agent or representative of a person that possesses that exclusive right in a State Party to the Paris Convention in violation of that Convention's requirements.

As the disputed trademark was not registered in the name of the Baltic Trade Company, with which ABC Design claims to have agency relations, Rospatent states that there are no grounds to consider ABC Design interested in filing the application on the grounds of Article 6.*septies* of the Paris Convention and CC RF Article 1512.2.5.

On the other hand, Article 6.*septies* of the Paris Convention includes a provision that if the agent or representative of the person who is the proprietor of a mark in one of the countries of the Union applies, without such proprietor's authorization, for the registration of the mark in his own name,

in one or more countries of the Union, the proprietor shall be entitled to oppose the registration applied for or demand its cancellation.

The interpretation of the above rule suggests that it is the relations between the principal and applicant existing precisely at the time of application that are material to the invalidation of the said trademark.

This provision aims to prevent wrongful use of an earlier trademark by its proprietor's agent or representative, for those persons may exploit the knowledge and experience gained in doing business with the proprietor, and thus derive an unjustified benefit from the efforts and investment made by the proprietor.

To apply the said rule, the court is thus expected to establish whether all of the following conditions are met:

the objector must be the proprietor of the earlier trademark;

the applicant must be or have previously been an agent or representative of the trademark's proprietor;

the registration application should have been filed in the agent's or representative's name without the proprietor's consent — without good reason;

the application must concern signs that are identical or essentially similar to the initial trademark.

Bearing in mind that the registration application for the disputed trademark was filed by the Baltic Trade Company, with which ABC Design believes to have agency relations, the first instance court properly found ABC Design interested in filing a challenge on the said ground.

In returning ABC Design's challenge for re-consideration to Rospatent in its respective part, the first instance court noted that the administrative authority should assess the entire body of evidence adduced by the objector to confirm the argument in question, to determine whether the Baltic Trade Company, that applied for the registration of the disputed trademark, acted as ABC Design's agent/representative in selling the former's goods in the territory of the Russian Federation, and whether the circulation of ABC Design's goods by that entity as an intermediary in the Russian Federation holds true.

However, the first instance court failed to take into account that in the contested decision, Rospatent had reviewed ABC Design's submissions and found no agency or representation relations between the Baltic Trading

Company and the ABC Design company, and had also noted that the Baltic Trading Company had presented no contracts or agreements indicative of such relations.

In this situation, the first instance court ought to have verified the above finding of Rospatent by examining and evaluating, on its own, the evidence adduced by ABC Design to confirm the existence of agency/representation relations between itself and the Baltic Trade Company on the disputed trademark's priority date, and ought to have found out whether the Baltic Trade Company acted dependently on / independently of the proprietor (e.g. a buyer cannot be considered an agent or representative as the buyer bears no fiduciary obligations to the proprietor, i.e. the entering into a goods supply contract does not indicate legal relations arising for the buyer to represent the seller in further resale of the goods), and whether all the conditions for the application of Article 6.*septies* of the Paris Convention were met.

In view of the foregoing, the IPC Presidium cancelled the first instance court's decision and remanded the case for retrial.

3. Perception of a Phrase in a Disputed Trademark

Two or more words may be perceived as a single verbal element in a trademark due to the latter's specific layout, which leads the consumer to understand certain words, otherwise individual lexical units, in conjunction — given their specific juxtaposition and the setting in which the trademark is used.

IPC Presidium Ruling of 24 February 2022 in Case No. SIP-605/2021

Rospatent dismissed an action challenging the registration of a combined trademark with the verbal element 'Мастер Муравей' (*Master Muravey,* or *Master Ant*], the action being filed under CC RF Article 1483.10 by the exclusive proprietor of two 'Муравей' (*Ant*) verbal trademarks.

The first instance judgement, later upheld by the cassation instance, also dismissed the 'senior' trademark owner's claims.

In explaining the procedure for applying the invalidity ground in CC RF Article 1483.10, the IPC Presidium dwelt upon the methodology for assessing the risk of confusion — more specifically, on the issue of an element in the 'junior' trademark being perceived as another entity's trademark. The

case where the 'junior' trademark employs a combination of several words presents particular difficulties.

The IPC Presidium pointed out that, in such a case, one should establish whether the words are perceived as a set expression (such as 'eye ball', 'Indian summer', 'public servant', 'solid hour', 'good tradition') or phraseological unit (e.g. 'Monomach's Cap' [meaning the burden of being in power]). Signs belonging to that group are holistic as they acquire a new meaning that departs from the semantic meanings of their component words.

The meaning of such expressions is unrelated to the semantics of each individual word they are comprised of, as the words lose all individual attributes of a word (lexical meaning, inflexion forms, and syntactic function) and only retain their sound pattern. The words in such expressions are inseparably linked.

Consequently, while formally consisting of several words, such expressions are perceived as unified elements due to their integrity and loss of word attributes by their individual lexical units.

The IPC Presidium also noted that several words may be perceived as a single verbal element not only in the above-mentioned cases but also due to a specific layout of a trademark's elements, which leads the consumer to understand certain words, otherwise individual lexical units, in conjunction — given their specific juxtaposition and the setting in which the trademark is used.

A similar position is set out in IPC Presidium Rulings of 23 September 2021 in Case No. SIP-871/2020, and 17 December 2021 in Case No. SIP-591/2020.

In view of the foregoing, the IPC Presidium was compelled to uphold the first instance court's finding that there were no grounds to establish similarity between any element of the disputed trademark and the trademarks counterposed, as the disputed ('junior') trademark was an indivisible construct and was not perceived as a sign comprising a number of independent elements.

4. Presumption of an Appellation of Origin Validity

Registration of a means of individualisation, e.g. a trademark, an appellation of origin, a geographical indication, at Rospatent gives rise to the presumption that it meets the legal requirements, which presumption

can only be rebutted by challenging such registration in administrative proceedings.

A disputed trademark's similarity to any other means of individualisation does not mean, in itself, dissimilarity from a specific means of individualisation counterposed.

IPC Presidium Ruling of 18 February 2022 in Case No. SIP-1018/2020

Two holders of exclusive rights to the *Narzan* [mineral water] appellation of origin filed a claim before Rospatent requesting the invalidity of the 'Dolina Narzanov' (*Dolina Narzanov,* or *Narzans Valley*) in respect of all ICGS Class 21 goods and Class 35 services. Following these proceedings, Rospatent upheld the legal protection of the disputed sign, therefore the claimants went to the IPC.

The first instance court dismissed the claims. The IPC Presidium ruled to turn down the decision and send the case for re-examination.

The first instance court had found no risk of confusion between the disputed trademark and the appellation of origin and agreed with Rospatent's finding that the granting of legal protection to the disputed trademark was in line with CC RF Article 1483.7.

The IPC Presidium granted the claims in the cassation appeal as it found breaches of both the methodology for establishing a disputed trademark's similarity to the counterposed appellation of origin and, generally, the methodology for establishing the risk of confusion. In its decision, the IPC Presidium pointed to three main deficiencies of the judgement under appeal.

Firstly, the first instance court had wrongly taken into account the courts' findings of the absence of a risk of confusion between the NARZAN verbal sign and the NARZAN TAVRIDY trademark in the cases Nos. A63-14231/2017 and SIP-1006/2020. The IPC Presidium held that the circumstances were not similar in this case, for the disputed NARZAN TAVRIDY and DOLINA NARZANOV trademarks were dissimilar.

Secondly, in comparing the disputed trademark and the appellation of origin counterposed to it, the first instance court had wrongly found the NARZAN verbal element to be a weak one. To draw such a conclusion, the first instance court had assessed the circumstances of the granting of legal protection to the NARZAN appellation of origin in the absence of any challenge filed and first examined under the administrative procedure.

The IPC Presidium recalled that the registration of the means of individualisation at the Rospatent gave rise to the presumption that it met the legislative requirements, only rebuttable by filing a challenge against such registration (Para. 52 of the Resolution No. 10).

So, unless and until the registration of the NARZAN appellation of origin was duly challenged (under CC RF Article 1535), the 'Narzan' verbal element was legally (1) the name of a specific geographical site (2) used as the designation of a product whose properties were mainly or exclusively determined by the geographical conditions and/or human factors specific to that geographical site (Article 30.1 of the Trademarks Law in force on the date when the registration of the appellation of origin was applied for).

In this situation, and also given the content of the exclusive right to an appellation of origin (CC RF Article 1519), the assessment of similarity between the NARZAN and DOLINA NARZANOV signs had to establish whether an ordinary consumer perceived the DOLINA NARZANOV geographical site as an obvious reference to a geographical site (or another object) other than that indicated by the NARZAN sign.

Thirdly, in assessing similarity between the signs, the first instance court had expressed the wrong opinion that the disputed trademark was more similar to still another protected appellation of origin, 'УРОЧИЩЕ ДОЛИНЫ НАРЗАНОВ' (*UROCHISHCHE DOLINY NARZANOV*, or *NARZANS VALLEY TERRAIN*). In that case, the court had not only overrun the scope of the challenge, for the said appellation of origin had not been counterposed to the disputed trademark, but also overlooked the fact that a disputed trademark's similarity to any other means of individualisation did not mean, in itself, dissimilarity from the specific means of individualisation counterposed.

On re-examination, the Rospatent decision was found illegal in its entirety, and the granting of legal protection to the disputed trademark was found invalid (IPC judgement of 04 July 2022 in the same case, upheld by IPC Presidium ruling of 17 October 2022).

5. Challenging Legal Protection of a Trademark Counterposed to a Well-known Trademark

The grounds for contesting the legal protection of a trademark are defined by the legislation in force on the date of the trademark registration application, even if a well-known trademark counterposed to it was

recognised well known in retrospect, under CC RF Title Four, after the application date of the disputed trademark. The same legislation will also define the scope of the protection of the well-known trademark counterposed to the disputed trademark.

Unlike the Civil Code of the Russian Federation, the Trademarks Law used to grant varying scopes of legal protection to a well-known trademark, depending on whether an already registered trademark or a sign used as a trademark but lacking legal protection in the territory of the Russian Federation was recognised well-known. The Trademarks Law would provide expanded legal protection only to a registered trademark later found well known.

IPC Presidium Ruling of 11 February 2022 in Case No. SIP-914/2020

The 'Pesnyary Belarusian State Ensemble' State Institution (hereinafter referred to as 'Ensemble') challenged the granting of legal protection to the *Pesnyary* trademark before Rospatent on the grounds set out in CC RF Article 1512.2.2 and .2.4.

The objector pointed out that the Ensemble owned the exclusive rights to the Pesnyary trademark, found well-known in 2010, since 01 January 1985, in respect of ICGS Class 41 services ('arranging and conducting of concerts; production of shows'). The objector believed that consumer would associate the use of the disputed trademark by its proprietor with the Ensemble, which might infringe on its lawful interests (Article 19.1.2, Para 2 of the Law No. 3520-I of the Russian Federation 'On Trademarks, Service Marks and Appellations of Origin' dated 23 September 1992, hereinafter referred to as 'Trademarks Law').

Rospatent established that some of the goods and services designated with the disputed trademark were non-relative to the services bearing the well-known trademark counterposed, and noted the following as it considered the application of CC RF Article 1512.2.4:

The established well-knownness of the counterposed trademark generates no plausible associations with the same producer in respect of goods and services found non-relative. The challenge file contains no documents confirming any injury to the legal interests of the proprietor of the well-known trademark in connection with continued legal protection of the disputed trademark in respect of the said goods and services.

The Ensemble believed that Rospatent's decision as regards refusal to invalidate the granting of legal protection to the disputed trademark in

respect of non-relative goods and services was unlawful and violated its rights and legal interests, so it applied to the IPC, challenging that decision.

After checking the Rospatent decision for compliance with CC RF Articles 1508.3 and 1512.2.4, the first instance court concluded that the administrative authority had not established whether the use of the disputed sign by its proprietor in respect of goods and services non-relative to the services behind the trademark counterposed to it generated any associative links in consumers' minds, and whether such use could infringe on the Ensemble's lawful interests. In this connection, Rospatent's decision was found invalid.

The IPC Presidium set aside the first instance judgement and remanded the case for reconsideration.

The IPC Presidium found that the question of the law applicable to disputed legal relations, namely of CC RF Articles 1508.1 and 1512.2.4, was material to the correct examination of the cassation appeal.

In this connection, the IPC Presidium evaluated the application of the said substantive law rules by the first instance court in this case.

By virtue of CC RF Article 4.1, civil legislative acts do not operate retroactively and only apply to legal relations that arose after their enactment, unless otherwise specified by law.

Article 5 of the Federal Law No. 231-FZ 'On the Enactment of Title Four of the Civil Code of the Russian Federation' dated 18 December 2006 contains a similar rule and stipulates that CC RF Title Four applies to those rights and duties that will arise after it is enacted.

As specified in Para 27 of Resolution No. 10, where the issue of a patent or granting of legal protection to a trademark or appellation of origin are challenged, the grounds for invalidating these shall be determined according to the legislation that was in force on the date the application was filed with Rospatent or with the federal authority for selection inventions.

The disputed trademark was registered pursuant to an application filed on 19 September 2003. In accordance with that priority date and the abovementioned law rules and explanations by the Supreme Court, the law applicable to the assessment of its protectability is the Trademarks Law.

The fact that the disputed trademark has been counterposed to a well-known trademark, recognised as such in 2010, i.e. after the application was filed in respect of the disputed trademark, cannot preclude the use of the applicable law determination approach set out in Para 27 of Resolution No. 10.

As the well-knownness of a trademark or sign used as such is a fact of objective reality (Decision No. 2145-O of the Constitutional Court of the Russian Federation dated 19 September 2019), consequently, where a trademark/sign is found well known before the registration of another trademark, similar to the former, was applied for, the sign is presumed to have been well known to the consumers in retrospect. Rospatent simply states that the trademark has been well known since a certain date up to the date of such a statement.

The fact of the Pesnyary sign's well-knownness in the Russian Federation was established since 01 January 1985, i.e. a date preceding the disputed trademark's priority date (19 September 2003). Consequently, the Pesnyary sign was well known in the Russian Federation on the disputed trademark's priority date.

So, while the trademark well known in the Russian Federation was recognised as such in 2010, when CC RF Title Four was already in force, the disputed trademark must be checked for protectability under the Trademarks Law that was in force on the disputed trademark's priority date.

It is the Trademarks Law that should determine the scope of legal protection to be given to a well-known trademark that may be counterposed to the disputed trademark.

The rule in CC RF Article 1512.2.4 only applies to determine the challenge filing procedure (with Rospatent) but not the scope of counterposition of the well-known trademark.

Unlike the CC RF, the Trademarks Law would grant a well-known trademark varying scopes of legal protection depending on whether an already registered trademark or a sign used as a trademark but legally unprotected in the Russian Federation had been declared well-known.

Para 1, Article 19.1.2 of the Trademarks Law granted a well-known trademark the legal protection established for trademarks by that Law. Where an already registered trademark was recognised well-known, the legal protection of such a trademark would also extend to goods unrelated to those for which it was found well-known — provided that the use of that trademark by another person in respect of such goods was associated with its proprietor in consumers' minds and might injure his lawful interests (Para 2 of Article 19.1.2 of the Trademarks Law).

The disputable question in this case is whether the legal protection of the counterposed well-known trademark also extends to non-related goods.

The provisions of Para 2 of Article 19.1.2 of the Trademarks Law only apply to an already registered trademark eventually recognised to be well known.

However, the first instance court never established what was well-known, the previously registered Pesnyary trademark, or a sign that was used as a trademark but was legally unprotected in the Russian Federation.

6. Suspension of Administrative Proceedings; Presumption of No Risk of Confusion Between Two Trademarks

Rospatent may suspend its proceedings on a challenge, inter alia, where facts have been established in a different administrative or judicial case that are (1) material for, but (2) cannot be established in the administrative proceedings in question. For example, the administrative proceedings on a challenge filed under Russian Federation Civil Code (hereinafter referred to as RF CC) Article 1483.6 (that may take into account that the trademark counterposed is not used) may be suspended in the presence of concurrent litigation concerning early termination of the legal protection of the trademark counterposed, due to its non-use.

Before finding that the affected party's trademark may probably be confused with the alleged infringer's, one must properly impugn the presumption that the two duly registered trademarks are not confusingly similar. Barring that, confusion may be found probable where the alleged infringer is using their trademark in a form different from that in which the trademark was granted legal protection.

IPC Presidium Ruling of 09 February 2022 in Case No. SIP-707/2021

The Disputed Trademark

PJSC Sberbank of Russia (hereinafter referred to as Sberbank) owns a figurative trademark (the disputed trademark), registered in respect of a broad range of goods and services of all ICGS classes.

The ALLTIME Company challenged the granting of legal protection to the said trademark before Rospatent, stating that its registration was incompatible with CC RF Article 1483.3.1 and .6.2.

In the course of the proceedings on the challenge, Sberbank moved that the administrative procedure be suspended until the judgement in case No. SIP-259/2021 concerning ALLTIME's claim that Sberbank's actions to acquire the exclusive right to the disputed trademark should be found an act of unfair competition, took legal effect.

Rospatent granted Sberbank's motion: The proceedings on ALLTIME's objection to the granting of legal protection to the disputed trademark were suspended because the IPC was considering case No. SIP-259/2021.

ALLTIME applied to the IPC for the invalidation of Rospatent's above decision to suspend the proceedings.

The first instance court dismissed the claim. The court proceeded from the fact that the IPC's finding in SIP-259/2021, that Rospatent can take into account that the consumer might be misled as to the goods manufacturer / service provider when considering the objection to the granting of legal protection to the disputed trademark, hence the outcome of dispute resolution in the said case may affect the outcome of the challenge proceedings that examined a similar body of facts.

The IPC Presidium overruled the first instance judgement and found Rospatent's decision to suspend the proceedings invalid — on the following grounds:

Rules No. 644/261 for Administrative Examination and Resolution of Disputes by the Federal Intellectual Property Authority, approved by an order of the Ministry of Science and Higher Education and Ministry of Economic Development of the Russian Federation dated 30 April 2020 (hereinafter referred to as 'Rules No. 644/261') establish an administrative procedure for Rospatent to examine and resolve intellectual rights protection disputes, including objections to the granting of legal protection to trademarks. In the sense of the Rules No. 644/261, the parties to an administrative dispute are entitled to exercise their right to the protection of their violated or contested rights and lawful interests and to prompt, fair and public administrative (out-of-court) proceedings.

At the same time, under Art. 34, Rules No. 644/261, examination of an administrative dispute may be suspended upon a party's motion or by a collegiate decision of the Patent Disputes Chamber if administrative or judicial proceedings are ongoing in another case, which can result in a decision/judgement that may be material to the resolution of the dispute in

question, and/or if interim measures have been taken in respect of the intellectual property item, until these are lifted.

According to the IPC Presidium, suspension of administrative proceedings means that Rospatent temporarily refrains from certain actions due to objective circumstances precluding further examination of the dispute until these are removed, or due to a risk of a non-regulatory legal act being passed without regard to facts and evidence that are material to the proper resolution of the disputed issues.

Administrative proceedings may be suspended, *inter alia*, if other administrative proceedings or litigation seek to establish facts that are material for, but cannot be established in the administrative proceedings in question.

This situation is vividly exemplified by the administrative proceedings on a challenge filed under CC RF Article 1483.6 (which might take into account that the counterposed trademark is not used) in the presence of parallel judicial proceedings concerning early termination of the counterposed trademark due to its non-use.

The contested Rospatent decision cites no grounds as to why the authority found it necessary to suspend the administrative procedure, and no circumstances that are material to the proceedings, but cannot be established in their course.

At the same time, the first instance court assumed Rospatent to have proceeded from the fact that the examination of case No. SIP-259/2021, based on the ALLTIME's claim to Sberbank demanding that the latter's action to acquire the exclusive right to the disputed trademark be found an act on unfair competition, would lead to a finding that the consumer might be misled as to the goods manufacturer / service provider, which could be taken into account by the administrative authority as it verified the arguments in the challenge.

The IPC Presidium found the first instance judgement to have been based on a misunderstanding of substantive and procedural law rules, for the following reasons:

The claim examined in SIP-259/2021 was to be resolved according to the Paris Convention, the Law on the Protection of Competition, and the explanations given in Resolution No. 2 of the Plenum of the Supreme Court of the Russian Federation 'On Some Issues Arising from the Application of the An-

ti-Monopoly Legislation by Courts' dated 4 March 2021 (hereafter — Resolution No. 2), requiring that the following body of facts should be established in a dispute concerning violation of the ban on unfair competition:

the fact that the business is taking actions that can affect the competitive situation;

the business chose a competition method differing from the conduct that would be expected of any business pursuing its commercial interest in a similar situation but limited to the exercise of its civil rights and to fair business practices;

the business is seeking to obtain an advantage in its economic activities, particularly a commercial benefit or an opportunity to derive it, at the expense of other market participants — particularly by exerting influence on customers'/consumers' choices and on the opportunities for competing *bona fide* businesses to take advantage of goods supply in the market, and/or by harming competing businesses in other similar ways (e.g. by using/undermining third parties' business reputation).

The IPC Presidium held that the need to establish whether a consumer can be misled as to the goods manufacturer / service provider hinged on the facts and arguments cited by the plaintiff in justification of his position, not on the category of the dispute in question.

It could not be inferred from the first instance judgement that the court had established such facts and found that the comprehensive, complete and objective examination of the case No. SIP-259/2021 required it to prove or rule out the possibility of the consumer being misled as to the goods manufacturer / service provider as ALLTIME and Sberbank used their trademarks.

In view of the foregoing, the IPC Presidium held that that the first instance court's finding that the SIP-259/2021 judgement to be passed would affect the outcome of the examination of the challenge filed under CC RF Article 1483 and stating that the registration of the disputed trademark was at variance with CC RF Article 1483.3.1 and .6.2, was not based on facts established by the court nor on the evidence in the case file.

As the contested non-regulatory legal act adopted by Rospatent failed to establish co-incidence between the objects of proof in SIP-259/2021 and in the administrative case where the ALLTIME challenge was examined, or to establish that one case could not be considered until the other was resolved, the IPC Presidium found the suspension of proceedings on the challenge unlawful.

Besides, the IPC Presidium was bearing in mind that administrative dispute was to be resolved within a reasonable time frame and that a federal executive authority could not dodge its duties.

On the other hand, the IPC Presidium noted that even if the facts of the consumer being misled, similar to those to be established in the administrative proceedings, were to be considered in the case No. SIP-259/2021 (provided arguments to this effect were advanced by the parties to that case), a second condition for suspending the administrative proceedings was not met anyway: Rospatent could establish those facts on its own.

The IPC Presidium found it proper for the appellant to argue that it was the administrative authority that, by virtue of its competence (CC RF Article 1513), was to verify the arguments stated in the challenge and conclude, in that disputable situation, whether the appellant had proved that the consumer might be misled as to the goods manufacturer / service provider (in verifying the arguments based on CC RF Article 1483.3.1) and whether the disputed trademarks and that counterposed to it were similar to the point of being confused (in verifying the arguments based on CC RF Article 1483.6.2).

Furthermore, as regards the anti-monopoly proceedings in court, it is important to bear in mind that confusion of two registered trademarks cannot be established until the legislative presumption that such confusion is improbable is duly destroyed.

As noted in Ruling No. 8091/09 of the Presidium of the RF Supreme Commercial Court dated 01 December 2009, no actions taken to use one's registered intellectual property may be deemed a violation of a right to another intellectual property item with an earlier priority date.

In the presence of two valid trademark certificates, no action by the holder of a certificate with a later priority date may be deemed a violation of rights to a trademark registered on an earlier date until that later certificate is found invalid according to the procedure established by CC RF Article 1513 (Ruling No. 10519/09 of the Presidium of the RF Supreme Commercial Court dated 15 December 2009).

Following the logic of Para. 52 and 142 of the Resolution No. 10, in such a situation, before confusion of the affected party's trademark with the sign being actually used and constituting the alleged infringer's trademark can be found probable, one must duly impugn the presumption that confusion of two duly registered trademarks is improbable.

Without such impugnment, in case both the affected party and the alleged infringer own trademarks, confusion of a specific sign in use may only be found probable if the alleged infringer is using its trademark in a way different from the one that was granted legal protection.

At the hearing before the IPC Presidium, Rospatent offered oral explanation that the administrative proceedings were to be suspended because, in case the claim were granted in court, Rospatent would get an additional ground to terminate the legal protection of the disputed sign. The explanation was dismissed for the following reasons:

The IPC Presidium assumed that Rospatent meant that if the granting of legal protection to the disputed trademark is recognised an act of unfair competition, the protection could be terminated on the basis of CC RF Article 1512.2.6.

On the other hand, firstly, such a finding (if achieved in court) could be a cause for a separate challenge, and, secondly, Rospatent could not take it into account on its own initiative, without a challenge filed by the interested party on that specific ground (CC RF Article 1513.1).

7. Influences on Competition, and Product Market Definition

Not only cases where the alleged infringer and the injured party compete directly with each other give rise to a finding that specific actions are acts of unfair competition, but also wider situations where an economic operator's acts potentially affect the state of competition.

A market's product boundaries can only be defined by analysing product interchangeability (anti-monopoly legislation) rather than product homogeneity (trademark legislation).

IPC Presidium Ruling of 03 February 2022 in Case No. SIP-143/2021

The Disputed Trademark

Mr. M., an individual entrepreneur, applied to the IPC for the invalidation of the decision that the Federal Anti-Monopoly Service Administration for St. Petersburg had taken after considering Mr. M.'s complaint that Mr. D., also

an individual entrepreneur, had violated the requirements of Part 1, Article 14.4 of Federal Law No. 135-FZ 'On the Protection of Competition' dated 26 July 2006 (hereinafter 'Competition Protection Law'). The applicant claimed that Mr. D.'s action to acquire and use of the disputed trademark should be qualified as an act of unfair competition. As the anti-monopoly authority noted in establishing Mr. M.'s interest, Mr. D., in its's trademark holder capacity, used blocking measures on the VKontakte social network against users who were distributing merchandising products dedicated to The SCP Foundation fiction-writing project, including the administrator of the VKontakte group via which Mr. M. sold items marked with the disputed sign.

The first instance judgement dismissed the applicant's claims. The IPC Presidium ruled to turn down the contested decision and to submit the case for re-examination. On re-examination, the decision of the anti-monopoly's authority was found fully invalid (*IPC judgement of 07 April 2022*).

On overruling the initial first instance judgement, the IPC Presidium expressed the following positions.

Firstly, the first instance court had overlooked the explanations in Para. 30.3 of Resolution No. 2, to the effect that not only cases where the alleged infringer and injured party compete directly with each other, but also wider situations, where an economic operator's acts potentially affect the state of competition, may give rise to a finding that specific actions are acts of unfair competition.

In this connection, not only a competitor's actions may be found to be unfair competition but also those taken by a person who/that is not a competitor at the time but acts to influence the competitive environment and obtain unjustified competitive advantages.

The court should have checked whether the person who had obtained trademark registration for a sign that had become known to a wide range of consumers through the actions of a broad range of persons was actually getting an unjustified competitive advantage, given that such registration prohibited everyone, except the proprietor and their licensees, from continued use of that sign.

Secondly, the first instance court had also violated the provisions of the Competition Protection Law as it examined whether the alleged infringer and the injured party were competitors.

Instead of analysing anti-monopoly legislation concepts (goods' interchangeability), the first instance court had analysed trademark law con-

cepts (goods homogeneity), which was a mistake and prevented the court from determining the market's boundaries.

The product boundaries of the market under review in this case constitute the retail sale of merchandising products related to The SCP Foundation, via a website and a group in the VKontakte social network, i.e. the boundaries of this products market are defined by products intended for a certain group of consumers — namely Internet users interested in a specific topic.

On the other hand, the first instance court had overlooked the usual behaviour of buyers of merchandising products, for whom the price of a product and the signs on this product are usually decisive, rather than the specific product type. Consequently, products that are not homogeneous (e.g. mugs and refrigerator magnets) may be interchangeable as souvenirs.

8. Early Termination of Legal Protection of a Trademark

The exclusive right to a disputed trademark passes to its new proprietor in the same status it had at the time of passage, particularly as regards the existence of an interested person's request in respect of the trademark. In this connection, where the exclusive right to the trademark is transferred after a claimant sues for early termination of legal protection of that trademark, a request to its new proprietor is not required.

IPC Presidium Ruling of 28 January 2022 in Case No. SIP-275/2021

A trademark had been registered in a company's name. On the grounds of an exclusive right alienation agreement, Company A alienated their exclusive right to that trademark in favour of Company B.

On 10 December 2020, a claimant, citing their interest in early termination of the legal protection of that trademark, submitted a request to that effect to Company A that was the proprietor of the trademark at that time.

Given the information contained in the answer to their request, on 17 February 2021 the claimant submitted a similar request to the new proprietor, Company B, in the belief that the exclusive right to the disputed trademark had passed to another entity.

The first instance court granted the claim on Company B, as it found that the claimant complied with the pre-trial dispute resolution procedure

and found the claimant interested in early termination of the legal protection of the disputed trademark.

As the claims for early termination of the legal protection of the trademark could only be granted in respect of that identifier's proprietor, the first instance court dismissed the claims on Company A that was no longer its proprietor at the time when the court took up the dispute.

Company B appealed on points of law to the IPC Presidium. In Company B's opinion, the first instance court had misinterpreted CC RF Article 1486.1, since the claimant had not complied the pre-trial dispute resolution procedure in its respect. Company B disagreed with the first instance court's finding that the request filed by the claimant on 17 February 2021 to Company B did not invalidate the previous request of 10 December 2020 filed to Company A.

In the appellant's opinion, in that case the first instance court was to replace the improper defendant and deny examination of the claim because the pre-trial dispute resolution procedure had not been complied.

The IPC found the arguments in the cassation appeal that the claimant had not complied the pre-trial dispute resolution procedure in respect of Company B, invalid for the following reasons:

According to CC RF Article 1486.1, legal protection of a trademark may be prematurely terminated in respect of some or all the goods that the trademark was registered to identify, if the trademark is not used for three consecutive years.

An interested party who believes that the proprietor is not using a trademark in respect of all or some of the goods that the trademark was registered to identify shall propose to such a proprietor to apply to the federal executive agency for intellectual property for the termination of their right to the trademark or enter into an agreement with the interested party for the alienation of the exclusive right to the trademark in respect of all or some of the goods that the trademark was registered to identify. The interested party's proposal will be submitted to the proprietor and to the address indicated in the State Register of Trademarks and Service Marks of the Russian Federation or in the respective register indicated in an international treaty entered into by the Russian Federation.

The interested party may submit the request to the proprietor not earlier than three years after State registration of the trademark.

Should the proprietor fail to apply for the termination of their right to the trademark or to enter into an agreement for the alienation of the exclusive right to the trademark with the interested party within two months the latter shall be entitled, within thirty days after the above two-month period expires, to go to court with a claim for early termination of the legal protection of the trademark due to its non-use.

After assessing the submissions in the case file according to Article 71 of the Code of Commercial Procedure of the Russian Federation (hereafter — CCP RF), the first instance court made a well-founded conclusion that the claimant had complied the pre-trial dispute resolution procedure.

This fact is confirmed by the pre-trial request with an attached return receipt confirming its submission to the company's A address indicated in the State Register of Trademarks and Service Marks and to its address indicated in the Single State Register of Legal Entities. The two months' period of waiting for the proprietor's answer and the thirty days' deadline for bringing the claim have also been met in this case.

The IPC Presidium found it correct for the first instance court to find that the claimant had properly submitted the pre-trial request to the company A (the legal entity that owned the trademark at the time the claimant made the request).

The eventual passage of the exclusive right to the trademark from the first company A to Company B is indicative of succession in this substantive relationship.

As specified in Para 163.2 of the Resolution No. 10, proprietor replacement during the examination of a dispute in court does not require the interested party to submit a new pre-trial request or alter the period of the use of the trademark to be assessed. What is taken into account is whether any proprietors have (not) used the specific trademark in the three-year period pre-ceding the submission of the request by the interested party, followed by the claim brought in court.

In view of the foregoing, the pre-trial request subsequently filed by the claimant to Company B was not necessary, for information only, and did not nullify the previous one. The fact it had been submitted does not affect the finding that the mandatory pre-trial dispute resolution procedure was discharged in respect of the proper party.

The approach indicated in Para 163 of the Resolution No. 10 is applicable in this case, for a different approach would unduly subject a person that

has duly made a pre-trial request in good faith to the risks of the eventual alienation of the trademark and alteration of the three-year period where its use by the proprietor must be proved.

The exclusive right to the disputed trademark passed to its new proprietor in the status in which it was at the time of transfer, i.e. with an interested person's request made in respect of it.

II. Patents

1. Inclusion of Unpublished Applications in Prior Art

In addition to the avoidance of double patenting, the rule in CC RF Article 1351.2 and the provision in Para. 51 of the Administrative Rules No. 701 that implements the afore-mentioned legal rule also aims to ensure that the person who was the first to declare themselves as the author of a patentable object is recognised as the author.

IPC Presidium Ruling of 05 March 2022 in Case No. SIP-1046/2020

Rospatent quasi-judicial body found the patent registration of a utility model for a 'manicure/pedicure apparatus nozzle' to be invalid for lack of novelty. Prior art was a utility model application, on which the patent was issued after the contested patent was applied for.

While contesting the substance of the administrative authority's decision (*the claims were dismissed by the IPC Presidium Ruling of 29 April 2022 in case No. SIP-76/2021),* the applicant asked the IPC to invalidate Rule 56 of the Administrative Rules No. 701* in respect of the provision reading 'irrespective of whether information thereon has been published as of the application's priority date', which made it possible to include any invention, utility model and industrial design applications, not made public until after the application's priority date, in the utility model's prior art.

The first instance judgement, later upheld by the IPC Presidium, dismissed the applicant's claim.

In its judgement, the first instance court held in particular that the inclusion in prior art of mere applications for patents to an invention, utility model or industrial design, filed in the Russian Federation, for the purposes of novelty requirement assessment, pursuant to CC RF Article 1351.2 — provided these were eventually published, — aimed to avoid double patent-

ing, with patents issued to identical technical solutions one of which was disclosed in an application with an earlier priority date that was not made public on the priority date of the patent application in question, and the other was disclosed in the application in question.

In her cassation appeal, the applicant stated that the judgement she appealed against failed to duly consider her argument that the contested Article 56 of the Administrative Rules No. 701 was not about 'double patenting' and only governed the search of information on a utility model application. She believed the relations arising from applications for identical solutions being concurrently filed by different persons to be governed by CC RF Article 1383.1.

In dismissing that argument, the IPC Presidium confirmed that the mechanism defining the information to be included in prior art for checking the novelty of a utility model aimed to prevent a case where two patents are issued to the same technical solution.

The IPC Presidium also explained that inclusion of information about patent applications not necessarily issued and consequently published in the state of the art pursued an additional goal. The provision in CC RF Article 1351.2 and the contested provision of the Administrative Rules No. 701 also aimed to ensure that the person who was the first to declare him/herself the author of the patentable object was finally recognised as the author (while the application might disclose multiple objects with some only mentioned in the description and/or shown in the drawings). The rule in CC RF Article 1351.2 thus prevents cases where a patent is issued to a later applicant rather than the first author who applies and discloses a certain object.

** Rules for Drafting, Filing, and Examining Documents that are Grounds for Taking Legally Significant Actions for State Registration of Utility Models, and Forms Thereof, approved by Order No. 701 of the Ministry of Economic Development of the Russian Federation dated 20 September 2015.*

2. No third parties may challenge Rospatent's decision to extend a deadline missed by the applicant. Third parties' interference in the patent granting procedure may only be allowed in cases provided for by law.

IPC Presidium Ruling of 04 March 2022 in Case No. SIP-536/2021

A manufacturer applied to the IPC to invalidate Rospatent decisions of 07 April 2021 and 16 March 2018, which cancelled earlier decisions to declare a patent application revoked. As a remedy, the applicant asked to obligate Rospatent to cancel the decision to issue the patent.

The IPC ruled to dismiss the case. The IPC Presidium upheld the ruling.

As established by the first instance court, on 05 March 2015, the international application filed by Impero Pascal was channelled into the national phase in the Russian Federation.

On 26 March 2017, Rospatent decided to declare the application revoked, as no request for substantive examination was received in the established time period as required under CC RF Article 1386.1.

After Impero Pascal moved to have the missed deadline extended, on **16 March 2018** the administrative authority decided to cancel the above decision that had declared the application revoked.

The experts' request for information was forwarded to Impero Pascal. As the documents and/or additional materials requested by the experts were not submitted in the established time period, Rospatent declared the application revoked on 05 August 2020.

On 31 March 2021, the authority received Impero Pascal's motion for the extension of the missed deadline for the provision of additional materials and his answer to the request including a more specific formula. After considering the motion, on **07 April 2021** Rospatent decided to cancel its earlier decision that had declared the application revoked and to extend the missed deadline for the provision of additional materials.

Proceeding from the experts' findings, Rospatent decided to grant the patent.

The first instance court concluded that in the case in question Rospatent decisions of 07 April 2021 and 16 March 2018 were intermediate ones after they were made, the proceedings on the application filed by Impero Pascal resumed.

The court also noted that the actions taken by the manufacturer to challenge Rospatent's decisions taken on the said application aimed essentially to challenge the patent. On the other hand, the granting of a patent may be challenged on the grounds and according to the procedure established by CC RF Article 1398.

According to CC RF Article 1398.7, the cancellation a decision of the Federal Executive agency on intellectual property to issue a patent is a consequence of the patent found invalid. However, in this case the manufacturer wanted to circumvent the legally established patent challenge procedure as it sought a remedy in the form of Rospatent's patent issue decision cancelled.

In this situation, the first instance court dismissed the case on the grounds of CCP RF Article 150.1.1, as it considered that court was not competent to consider the case in question.

As noted in Para 13 of the Resolution No. 46 of the Plenum of the Supreme Court of the Russian Federation dated 23 December 2021 'On the Application of the Code of Commercial Procedure of the Russian Federation during the Examination of Cases in First Instance Court', on the grounds of CCP RF Article 127.1.1.1 the IPC may refuse to take up (1) applications challenging intermediate actions of Rospatent and (2) applications for the protection of intellectual property rights when such protection is provided under the administrative procedure.

In this case, the first of the above two grounds was applied to the Rospatent decisions at the core of the dispute: It was established that they were intermediate. The finding is in line with the applicable law rules. An administrative authority's decision that does not complete the proceedings is an intermediate one.

In the light of the explanations given by the Supreme Court, such a decision cannot be challenged in isolation from the decision that completes the proceedings in question. No findings as to the legality of an act or action that do not complete the proceedings may be made in separate litigation. A similar approach was set out in the IPC Presidium ruling of 10 December 2021 in the case No. SIP-346/2021.

The fact that the decisions at the core of this dispute continue, rather than complete, the proceedings on the application is obvious and is not contested in the cassation appeal.

According to CC RF Article 1389.1, the initial or extended deadline for the provision of documents or additional submissions requested by the Federal Executive agency on intellectual property (Article 1384.4 in the article's version on the first decision's or .3 on the second decision's date, and Article 1385.6), the deadline for requesting substantive expert examination of the application (Article 1386.1) and the deadline for filing a challenge

to the above Federal Executive agency (Article 1387.3) may be extended by the said Federal Executive agency if the applicant cites good reasons for having missed them.

A decision to deny extension of a missed deadline will terminate the proceedings on the application; it is final and may be appealed against as such.

A decision to extend a missed deadline does not terminate the proceedings and cannot be appealed against on its own.

This is a typical approach not limited to challenged Rospatent decisions. E.g., it underlies CCP RF Article 117.

The IPC Presidium dismissed the manufacturer's statement that, being unable to challenge the intermediate decision by Rospatent, it found itself 'disenfranchised' and could not challenge the patent issue decision on the grounds of allegedly unlawful deadline extension.

Firstly, by virtue of CC RF Article 1387.3, the manufacturer is not entitled to challenge a patent issue decision on any grounds whatsoever; this right is provided to the applicant only.

It is the patent, if actually granted, that can be contested by third parties (including the manufacturer) under the rules in CC RF Article 1398.

Secondly, the imposition of legal restrictions specifying both the scope of administrative acts and the grounds on which these can be contested in court aims to maintain the general balance of interests in society and the principle of legal certainty.

The issue of a patent, with an exclusive right to it granted for a certain period of time, reflects a trade-off between the interests of the patent holder, for whom that right creates preferential terms of investing in the adoption of new technology, and those of the society, always interested in broad utilisation of technological achievements, i.e. in having free access to the results of research and technological advancement.

Before the patent holder receives the patent, no exclusive right to its object arises (in respect of trademarks, a similar approach is reflected in Para 155 of the Resolution No. 10) or affect third parties' rights (even temporary legal protection of inventions and industrial designs is considered to have never existed if no patent is received).

Consequently, before the patent owner receives the patent, no third parties' rights and lawful interests are considered injured or challenged by intermediate acts (CCP RF Article 4).

No decision on the extension of a missed deadline is adopted in respect of the rights and duties of persons not involved in the administrative procedure.

Third parties may only be allowed to interfere in the patent granting procedure in cases expressly provided for by law (as e.g. for trademarks in CC RF Article 1493.1.3).

The absence of restrictions on third parties' interference in the patent granting procedure would make it possible to block the very procedure for issuing them and the checks of technical solutions for patentability.

Consequently, the decisions by Rospatent at the core of this dispute are intermediate, and the impossibility of contesting them by non-parties to the administrative proceedings injures no such persons' rights.

3. No Grounds for Licensee's Involvement in Patent Invalidation Dispute

Any adverse consequences for the rightholder's counterparties or other related parties arising from the invalidation of a patent to a utility model are outside the scope of the dispute before the Intellectual Property Court.

IPC Presidium Ruling of 22 February 2022 in Case No. SIP-667/2021

Rospatent satisfied an invalidity claim against a patent issued for a utility model to Sonneville A.G., which contested that administrative decision before the IPC.

As the contested utility model was part of a complex system used under a license agreement between RZDstroy and Sonneville A.G., prior to the hearing both entities petitioned for RZDstroy to be involved in the proceedings as a third party bringing no claims on its own in respect of the subject of the dispute.

The IPC dismissed both petitions, as the petitioners had not justified how a judicial act in the said case could affect RZDstroy's rights or duties owed to either party. In lodging a cassation appeal with the IPC Presidium, RZDstroy insisted that the judgement in the utility model patenting case might affect its interests considerably, as there arose the issue of the legal effect of patent invalidation on their contractual obligations.

As the IPC Presidium dismissed the cassation appeal, it explained the following:

In accordance with the CCP RF Article 51, involvement of third parties that bring no claims on their own aims to prevent any adverse consequences for them. The court must establish which specific interests of the petitioner are touched upon by the dispute in question, and whether its judicial act may affect that person's rights or obligations in respect of either party.

The court established that RZDstroy had not been a party to the administrative proceedings on the patent's invalidity. In this situation, the questions of what interests of RZDstroy might be affected by the dispute and whether a judicial act could affect that entity's rights and/or obligations in respect of either party were to be resolved on the basis of a review of the administrative dispute's subject matter. In this case, the subject of the dispute was the utility model's conformity to the 'novelty' patentability requirement, rather than the rights and obligations of the persons entitled to use the utility model under a license agreement entered into with its rightholder.

The cassation instance court rejected the argument in the appeal that the invalidation of the disputed patent would preclude the execution of the agreement between RZDstroy and Sonneville A.G., for the invalidation and cancellation of the patent did not mean that the license agreements entered into before such invalidation were invalid or unconcluded.

The cassation instance court specified that any adverse consequences for the patent holder's licensee or other related parties that might arise from the invalidation of the patent to the utility model were also outside the scope of the dispute before the IPC.

4. Rules for Defining the Features of a Device Patent Formula

An invention's formula (patent claims) may not be fragmented into the smallest possible components with a view to finding out its features; the content of the invention's features shall be determined on a case-by-case basis by analysing the content of the formula and the inter-relationships among its components.

IPC Presidium Ruling of 28 January 2022 in Case No. SIP-403/2021

A company brought a challenge before Rospatent, objecting to the issue of a patent to a group of inventions named 'Plastic Keychain with a Built-in

Radio Frequency Tag, and Method of Manufacturing This' on the grounds that the invention failed to meet the 'inventive step' requirement, stating that all the features of that invention had been known from prior art. After the challenge was dismissed, the applicant contested the Rospatent decision before the IPC.

The first instance judgement, later upheld by the IPC Presidium, dismissed the applicant's claims.

Rospatent established that the prior art sources attached to the challenge contained no information about the feature in the independent Claim 1 formulated as the 'presence of a rugged surface on the external protective lamination layers for better adhesion precisely to composite lenses'. That led Rospatent to conclude that the design reflected in the independent Claim 1 of the disputed patent did not expressly follow from the information contained in the prior art documents, and met the 'inventive step' test.

In objecting to Rospatent's position, the applicant pointed out that Rospatent had wrongly merged multiple features into one and thus arrived at an erroneous conclusion that no such collective feature was known from the state of the art. In the applicant' opinion, the feature of the 'presence of a rugged surface on the external protective lamination layers for better adhesion precisely to composite lenses' contained a number of features whose disclosure was confirmed by the prior art documents he provided in the claim.

In rejecting the company's argument that the feature should be split into a number of individual features, the first instance court concurred with the administrative authority in that individual features should not be arbitrarily identified without regard to their inter-relationship during the examination of an invention's formula.

As the IPC Presidium dismissed the cassation appeal, it concurred with the first instance court in that an invention formula should not be split into the smallest possible components with a view to finding out its features (e.g. the cassation appeal suggested that the feature formulated as 'for better adhesion precisely to composite lenses' should be considered separately), and the content of the invention claims must be determined on a case-by-case basis by analysing the content of the formula and the inter-relationship among its components.

In that connection, the appellant's call for finer fragmentation of the feature under scrutiny was rejected, for it actually aimed at re-assessment of the facts of the case.

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Legal Issues in the **DIGITAL AGE**

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Вопросы права **В ЦИФРОВУЮ ЭПОХУ**

ЕЖЕКВАРТАЛЬНЫЙ НАУЧНО-АНАЛИТИЧЕСКИЙ ЖУРНАЛ

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3/2022

ЕЖЕКВАРТАЛЬНЫЙ НАУЧНО-АНАЛИТИЧЕСКИЙ ЖУРНАЛ ТОМ 3

Статьи

Комментарии

Научная статья

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LEGALTECH В ЦИФРОВОЙ ЭКОНОМИКЕ И ПРАВОВОМ РЕГУЛИРОВАНИИ ЭКОНОМИЧЕСКОЙ ДЕЯТЕЛЬНОСТИ ГРАЖДАН

Наталья Евгеньевна Савенко

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Аннотация

В статье на основе изучения законодательства и доктрины рассматриваются во взаимосвязи категории «цифровая экономика», «legaltech», «экономическая деятельность граждан». Акцентируется, что данные категории являются приоритетными направлениями развития России и все они в полной мере подвержены цифровизации. Правовая наука отражает многообразие трактовок legaltech. Распространенным является его понимание в качестве узкого инструментария юристов. Автор аргументирует расширительное толкование этого многопланового явления, предназначенного широкому кругу субъектов экономической деятельности. Доказывается, что legaltech выступает одновременно элементом цифровой экономики и цифровизированным средством правового регулирования экономической деятельности граждан. Выявлены тенденции и риски при внедрении и использовании инструментов legaltech. В аспекте правового регулирования на основе инструментально-правового подхода сформулированы функциональные характеристики legaltech.

Ключевые слова

legaltech, цифровая экономика, искусственный интеллект, большие данные (big data), правовое регулирование экономической деятельности граждан, правовая грамотность, автоматизация регистрации и отчетности, контроль за деятельностью субъектов экономической деятельности.

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ЦИФРОВИЗАЦИЯ НОРМОТВОРЧЕСКОЙ ДЕЯТЕЛЬНОСТИ В УСЛОВИЯХ ИНФОРМАЦИОННОГО ОБЩЕСТВА

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Аннотация
Цифровые технологии проникают во все большее количество сфер деятельности человека. Их распространение сопровождается повышением производительности труда, возникновением новых возможностей в науке и технике. Формируемые благодаря им стандарты информационного общества становятся новой реальностью. Право, правотворческая деятельность являются более латентными, чем экономическая и иная социальная деятельность. Одна из функций права — обеспечивать стабильность в обществе, за счет своей статичности отфильтровывать незначительные, сиюминутные изменения отношений. Однако сфера правотворчества так же, как и вся деятельность государства, не стоит на месте, она развивается вместе с развитием науки и технологии. Анализируя и воспринимая лучший опыт цифровизации отдельных видов деятельности нормотворческие органы внедряют цифровые технологии в процесс подготовки и принятия нормативных правовых актов. Статья посвящена анализу научных разработок сферы цифровой трансформации нормотворчества. Как итог исследования предлагается алгоритм поэтапного внедрения современных цифровых технологий в деятельность нормотворческих органов.

Ключевые слова
цифровая среда, законодательные технологии, информационное общество, эпоха цифровых технологий, нормотворчество, управление обществом, правовые последствия.

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Научная статья

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ГРАФИЧЕСКИЙ ЯЗЫК В ПРАВЕ

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Аннотация

Статья посвящена раскрытию роли графического языка в праве. Актуальность данного направления заметно возросла ввиду стремительного распространения искусственного интеллекта в различных сферах жизни, в том числе в сфере права. Юристы нуждаются в языке взаимодействия с системами искусственного интеллекта для решения с их помощью своих проблем. По мнению автора, искусственный интеллект и естественный интеллект дополняют друг друга и должны находиться в состоянии взаимодействия и взаимного развития (со-развития). Это означает, что не только машины должны набираться опыта у человека, осваивать функции человеческого мышления, но и человеку нужно учиться у машин — по крайней мере, понимать язык и логику действий систем с искусственным интеллектом. Одним из «переходных мостиков» между искусственным и естественным интеллектом может быть графический язык — язык рисунков, схем, графиков — который абстрактен и формализован, но в то же время доступен обычному человеческому мышлению. С этой точки зрения расширяются перспективы использования графического языка в сфере права и в других гуманитарных областях человеческой деятельности. Под языком в статье понимается система знаков различной физической природы, выполняющую познавательную и коммуникативную функции в процессе человеческой деятельности. Языки формируются естественным образом или создаются искусственно для определенных целей. В числе искусственных языков есть и такой класс, как графические языки. При этом графический язык в праве –не уникальное явление. Разновидностями графического языка являются системы государственных символов, знаки дорожного движения, производственные знаки и схемы (радиация, высокое напряжение, магнитные поля). В статье обосновывается состав графического языка в праве — разновидности графического языка, ориентированного на решение научно- аналитических задач в сфере правоведения. Рассматриваются функции графического языка

и виды рабочих схем. Показаны основные этапы процесса схематизации. Подробно разобран пример схематизации общетеоретической юридической категории «механизм правового регулирования». Разграничиваются схематизация и визуализация. Визуализация, по мнению автора, — представление содержания некоторого явления в видимой, наглядной, образной форме. В человеческой практике используется огромное количество разнообразных форм визуализации. Схематизация представляет собой одну из особых форм визуализации.В заключительной части статьи рассмотрены многослойки — относительно новая перспективная форма схематизации. Показаны преимущества многослоек как формы схематизации, рассмотрены их виды и сферы возможного применения. Дан краткий обзор ближайших перспектив развития графического языка в праве.

Ключевые слова
язык права, графический язык. функции графического языка, виды схематизаций, визуализация.

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Научная статья

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ЦИФРОВИЗАЦИЯ ОБЩЕСТВА И ОБЪЕКТЫ НАСЛЕДСТВЕННОГО ПРАВОПРЕЕМСТВА

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Аннотация
Статья посвящена ключевым вопросам, возникающим при включении цифровых объектов в наследственную массу. Рассматривается, как «классическая» теория наследственного права может быть использована для разрешения указанной проблемы и какие уточнения должны быть в эту теорию внесены. Целью исследования является рассмотрение особенностей категории «объекты наследственного правопреемства» и ее трансформации в связи с происходящими в настоящее время процессами цифровизации общества. С этой целью автор в первой части работы рассматривает общие вопросы теории объектов наследственного правопреемства. Во второй ча-

сти статьи анализируются проблемы отнесения некоторых объектов гражданских правоотношений, возникших в процессе цифровизации общества, к наследственной массе (цифровые права, криптовалюты, аккаунты в социальных сетях). В третьей части, используя индуктивные рассуждения, исследователь формулирует общие концептуальные проблемы развития законодательства, связанные с «цифровыми» объектами наследственного правопреемства. Сделан вывод, что возможны следующие законодательные решения выявленных проблем: установление полного запрета на наследование «цифровых» активов; создание отдельного правового регулирования наследственных отношений специально «под» цифровые активы; допущение включения в наследственную массу «цифрового объекта» только если его реально возможно ввести в оборот; допущение некоторых особенностей наследования «цифровых объектов». Несомненно, выбор подхода сильно зависит от политики государства в сфере цифровой экономики, которая в свою очередь должна исходить из научно обоснованных концепций и реалистических предложений. Позиция автора заключается в том, что правовое регулирования «цифровых» наследственных отношений в России может быть основано на смешанном методе, включающим в себя совокупность традиционных и технологических методов. Такой метод наиболее коррелирует с допущением факта включения в наследственную массу «цифрового объекта» только если его реально можно ввести в оборот.

Ключевые слова
цифровое право; цифровые права; криптовалюта; социальные сети; наследование; объекты наследственного правопреемства; наследственная масса; завещание.

Для цитирования: Волос А.А. (2022) Цифровизация общества и объекты наследственного преемства. *Вопросы права в цифровую эпоху.* Т. 3. № 3. С. 68–85 (на англ. яз.). DOI:10.17323/2713-2749.2022.2.68.85

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Научная статья

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ПРАВОВОЕ РЕГУЛИРОВАНИЕ ИНФОРМАЦИОННЫХ СИСТЕМ АВТОТРАНСПОРТНОЙ ТЕЛЕМАТИКИ В РОССИИ И ЗА РУБЕЖОМ

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Аннотация
Статья посвящена проблеме правового обеспечения функционирования информационных систем автотранспортной телематики в целях обеспечения потребности государственных и муниципальных органов, физических и юридических лиц в доступе к телематической автотранспортной информации и ее использовании. Авторы выделяют два основных подхода к совершенствованию законодательства в сфере транспортной телематики: комплексное регулирование и «точечные» изменения законодательства. И тот, и другой подход предполагают внесение изменений в законодательство, устранение пробелов, в том числе определение правового режима информации, формируемой в процессе использования транспортной телематики, создание условий, обеспечивающих эффективное функционирование «Автонет», защиту персональных данных. Объектом исследования стали нормативные правовые акты Российской Федерации, регулирующие общественные отношения в сфере информационных систем автотранспортной телематики, в части порядка создания, эксплуатации и использования таких систем, в том числе в части сбора, хранения, обработки и предоставления данных, формируемых транспортными средствами, включая одометры, находящимися в эксплуатации на территории Евразийского экономического союза; требования к картографическому обеспечению информационных систем автотранспортной телематики; зарубежный опыт правового регулирования отношений по поводу создания, эксплуатации и использования информационных систем автотранспортной телематики, а также правового режима включенной в них информации. Целью работы стало изучение направлений совершенствования правового регулирования и устранения административных барьеров в целях обеспечения реализации Национальной технологической инициативы по направлению «Автонет». Методологический аппарат исследования составили общие и специальные методы научного познания: философский метод, формально-логический метод, системно-структурный метод, исторический метод, формально-юридический метод анализа, догматический метод, метод толкования права, сравнительно-правовой метод, метод экспертного оценивания. При применении указанных общих методов научного познания использованы такие приемы исследования, как структурирование, описание, анализ и синтез результатов работы, сформулированных на основе проведенного анализа нормативных правовых актов Российской Федерации и зарубежных стран.

Ключевые слова
административные барьеры, информационная система, автотранспортная телематика, навигация, обработка данных, информация, транспортное средство, интеллектуальная транспортная система, информационные системы, навигационно-телематическая платформа.

Для цитирования: Терещенко Л.К., Трунцевский Ю.В., Лещенков Ф.А. (2022) Правовое регулирование информационных систем автотранспортной телематики в России и за рубежом. *Вопросы права в цифровую эпоху.* Т. 3. № 3. С. 86–100 (на англ. яз.). DOI:10.17323/2713-2749.2022.2.86.100

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Научная статья

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ОСНОВЫ РЕГУЛИРОВАНИЯ РАЗРАБОТКИ, ВНЕДРЕНИЯ И ПРИМЕНЕНИЯ ИСКУССТВЕННОГО ИНТЕЛЛЕКТА В АЗИАТСКИХ СТРАНАХ

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Аннотация
Восточная Азия стала новым центром инноваций в сфере информационных технологий и глобальной цифровой экономики. Цифровая трансформация социально-экономической и политической жизни государств неотъемлемо связана с разработкой и принятием новых систем нормативного регулирования. Успех цифровой трансформации экономики и общества в целом тесно связан с внедрением технологий. Выделение отдельных групп технологий в качестве ориентиров цифровой трансформации целесообразно также с точки зрения нормативного регулирования. Одной из ключевых технологий, от которой зависит цифровая трансформация государства в целом, является искусственный интеллект. Целью настоящей работы выступает определение особенностей регулирования разработки, внедрения и применения искусственного интеллекта в странах Азии, лидирующих в сфере цифровой экономики. Посредством анализа независимых рейтингов в качестве таких стран избраны Китайская Народная Республика, Сингапур, Республика Корея и Япония. Данные страны объединяет не только лидерство в цифровой экономике, но принятие так называемых «азиатских» ценностей и «азиатской» морали, стержнем которых является конфуцианство. Проведение сравнительного исследования основных положений нормативных актов, направленных на упорядочивание общественных отношений при разработке, внедрении и применении искусственного интеллекта в данных странах также позволяет выработать предложения о возможных направлениях развития российского регулирования в сфере этики и права искусственного

интеллекта. В работе использована методология формально-логического анализа и сравнительного правоведения, что позволяет раскрыть сущность основ регулирования разработки, внедрения и применения искусственного интеллекта в выбранных странах. Сделан вывод, что как на уровне стратегических документов, так и в плане кодификации принципов регулирования есть значительно сходство. Доминирующей линией является благосостояние общества и государства. В некоторых изученных документах есть отсылки к правам человека и индивидуальным свободам, но ключевой идеей является достижение процветания общества и его устойчивого развития. Такой подход в большой степени подходит для переноса его на российские реалии. Во всех рассмотренных актах закреплен гуманистический подход, который предполагает оценку влияния применения ИИ на его пользователей, общество и окружающую среду. Интерпретация данного подхода в каждой из исследованных азиатских стран имеет специфику.

Ключевые слова
право и этика искусственного интеллекта, сравнительное правоведение, киберэтика, киберправо, право Китайской Народной Республики, право Сингапура, право Республики Корея, право Японии.

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Для цитирования: Дремлюга Р.И. (2022) Основы регулирования, разработки и применения искусственного интеллекта в азиатских странах. *Вопросы права в цифровую эпоху.* Т. 3. № 3. С. 101–119 (на англ. яз.). DOI:10.17323/2713-2749.2022.2.86.101–119

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КОММЕНТАРИИ

Обзор

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ОБЗОР КЛЮЧЕВЫХ ПОЗИЦИЙ ПРЕЗИДИУМА СУДА ПО ИНТЕЛЛЕКТУАЛЬНЫМ ПРАВАМ

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Аннотация

В обзоре приведены ключевые позиции постановлений Президиума Суда по интеллектуальным правам, принятых с января по март 2022 г. Президиум Суда по интеллектуальным правам рассматривает кассационные жалобы на решения суда первой инстанции, в частности, по делам, связанным с регистрацией объектов интеллектуальных прав и с оспариванием правовой охраны. Соответственно данный Обзор преимущественно посвящен вопросам охраноспособности объектов патентных прав и средств индивидуализации, а также отдельным процессуальным аспектам деятельности Роспатента и Суда по интеллектуальным правам. В новом Обзоре рассмотрены различные вопросы, связанные с товарными знаками: сходство до степени смешения, противопоставление с более ранним общеизвестным товарным знаком или наименованием места происхождения товара, применение статьи 6*septies* Парижской конвенции, прекращение действия товарного знака, недобросовестная конкуренция. Также освещены некоторые процессуальные вопросы, касающиеся приостановления административного судопроизводства, участия третьих лиц в процедурах оспаривания. В части патентов рассмотрены вопросы включения неопубликованных заявок в уровень техники, правила определения признаков формулы.

Ключевые слова

Российская Федерация, судебная практика, товарные знаки, прекращение охраны, сходство, недобросовестная конкуренция, НМПТ, патент.

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