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Technologies of “Artificial Intelligence”: Problems of Qualification and Legal Regime



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Abstract

Based on the civil law methodology, the paper analyzes the concept, legal nature and legal regime of the technology of artificial intelligence. The subjects discussed include: the civil law doctrine; provisions of the national and international law; enforcement practices. The study purports to theoretically justify the legal nature and legal regime of “artificial intelligence”. In view of the above subject and purpose, the paper has relied on the comparative legal and structural system methods as well as simulation method. In particular, the comparative legal method has allowed to explore specific elements of “artificial intelligence” in the context of the national and international regulation of relevant relationships. The use of this method has also allowed to justify the legal regime applicable to technologies of “artificial intelligence” as intellectual assets. The use of the structural system method has allowed to substantiate the legal nature of AI and to identify its structural elements and the scope of application (information and health care services; development and use of robotic devices in the oil and gas sector; apartment buildings design etc.). The simulation method has provided an insight into the correlation between the concepts of “artificial intelligence” and “AI implementation form”, and helped to propose a solution to the issue of legitimacy of sharing the exclusive right to AI. As a methodological peculiarity, the study combines the theoretical and empirical levels of cognition. The said combination of methods has allowed to look at the problems of qualification and legal regime in the context of controversial doctrinal and practical approaches. The study has found that the “artificial intelligence” technology, being a complex technical product, is essentially an intellectual asset (property). It was established that the doctrinal approaches qualifying AI technologies as a (“digital”) person at law or a physical thing were unfounded. The paper argues in favor of recognizing the exclusive right to the AI technology as an intellectual asset.

Keywords

“artificial intelligence”; AI technologies; intellectual asset; legal nature; legal regime; exclusive right; share.

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Background

The “artificial intelligence” technologies are known to be widely used in a variety of fields [Vavilin E.V., 2021: 13-35]. Under the National Strategy for the Development of Artificial Intelligence¹ (sub-paragraphs a, b, c, l, paragraph 5), the AI technology as a specific digital product is designed to generate technological solutions including new intellectual assets. It is noteworthy that the Strategy makes no mention of other areas of AI application. For example, nothing is said about AI being used in technologically complex processes such as surgery (surgical medical interventions) in health care². Using the area of application as a criterion, one could distinguish a number of AI technologies used for provision of various services (in particular, telemedicine technologies in health care); industrial production; national defense and security; apartment building utility system management; job matching services etc.

Of special interest is the specific use of AI technologies for the provision of health services. This area involves not only telemedicine solutions but also other AI technologies (such as those embodied in robotic devices or RD). Telemedicine consultations are currently in high demand at the federal health care centers. For example, a free telemedicine service is available at the Kulakov Research Center of Obstetrics, Gynecology and Perinatology as part of the Health Cloud project³. That consultations are also

¹ Presidential Decree No. 490 of 10 October 2019 “On the Development of Artificial Intelligence in the Russian Federation” (attached to the National Strategy for the Development of Artificial Intelligence for the period until 2030). Available at: URL: <http://www.pravo.gov.ru> 11.10.2019 (accessed: 10.11.2022)

² For surgery (surgical interventions), robotic AI devices are used. For example, da Vinci robotic surgeon (da Vinci Surgical System) comprises two units: a surgeon’s console and a controller with four robotic arms. Available at: URL: [https://ru.wikipedia.org/wiki/Da_Vinci_\(surgical_robotic_system\)](https://ru.wikipedia.org/wiki/Da_Vinci_(surgical_robotic_system)) (accessed: 25.07.2023)

³ See: Free telemedicine consultations. Available at: URL: https://ncagp.ru/index.php?t8=200&pr_p_razdel=0&pr_p_object=383 (accessed: 25.07.2023)

provided by the staff of the Morozov Children's Municipal Hospital under Moscow's Health Department⁴. In fact, AI provides an example of combining different physical forms (AI external manifestations) with "artificial intelligence" as a technology. In using AI technologies in digital medicine, both patients and their proxies will pass health information to databases (data systems). Health care institutions will use AI technologies embodied in robotic devices for provision of relevant services.

While being important for the development of this country's technological potential, AI technologies are not on the list of protected intellectual assets. The Civil Code of Russia (hereinafter CCR) does not specifically regulate the development of "artificial intelligence" or the disposal of the relevant exclusive rights.

The civil doctrine and enforcement practice have developed superficial approaches to legal qualification and definition of the regime applicable to AI technologies. Thus, AI technologies have been wrongly identified with "artificial intelligence", with the latter assumed to be a "person at law", "digital personality", "digital person" or a thing "educable like a child".

Based on the above, it has a sense there is a special urgency to discuss the problems of legal qualification and legal regime of AI technologies.

1. "Artificial Intelligence" Technologies: Legal Qualification Discussion

Before identifying a legal regime applicable to AI technologies, it is necessary to determine their legal nature in the first place. As was already mentioned above, the civil doctrine has proposed a variety of approaches to qualify AI technologies. It is useful to discuss them in detail.

One of the doctrinal approaches recognizes AI as a person at law, with its advocates identifying "artificial intelligence" with AI technologies.

Thus, R. Dremluga, O. Dremluga, A. Mamychev and Yu. Matyuk endow AI with a legal personality but fail to identify any universally applicable objective criteria to recognize AI as a person at law [Dremluga R.I., Mamychev A.Yu., Dremluga O.A., Matyuk Yu.S., 2019: 127]. They just argue that AI and related technologies mimic human cognitive functions.

⁴ Available at: URL://<https://xn--90adclrioar.xn--p1ai/telemedicine/> (accessed: 25.07.2023)

We believe this position to be contrary to the provisions of the CCR on persons. A natural person as a person at law is characterized by legal capacity and competence (Article 21 of CCR); a legal person has legal capacity (Article 49). A necessary qualifying attribute of a person at law is will (the presence of will and the ability to manifest it). Specific operating capabilities of AI are determined by its developers. These digital products do not possess a will of their own or an ability to manifest it. No amendment to the civil law can make up for the lack of will in AI technologies.

As an argument in favor of endowing “artificial intelligence” with a legal personality, S. Afanasiev notes its “cognitive features and skills” of a person at law (natural person) which AI will possess in the future [Afanasiev S.F., 2022: 13–31]. In contrast to the above statement, the author concludes that a combination of these features and skills “does not make AI personable”. In our view, this stance is wrong. No mimicking of human properties and skills will make AI a person at law endowed with a will and volition.

In analyzing the definition of “will”, it is possible to conclude that the presence of will is mainly manifested by the freedom of behavior⁵. The operational algorithm of AI technologies is determined by developer. These digital products are designed by their creators (natural persons or a team) as part of their job or under a statutory contract (commissioning contract or R&D contract for the performance of research and development). AI technologies embody the will of their authors or those who commissioned them. In our view, AI technologies are not free in their behavior, its variability being pre-determined at the time of development. The variability of AI behavior depends on the creator’s or customer’s will (persons at law).

A view advanced by some researchers [Kuteinikov D.L. et al., 2019: 85–95] whereby autonomous devices have “full freedom of will” and “become persons” with “a special legal status similar to that of a natural person” is also contrary to the generally acknowledged understanding of will and volition.

Persons at law exercise their civil rights “by their will and in their interest” (paragraph 2, Article 1 of CCR). AI technologies do not have either will or interest of their own and are thus unable to participate in legal relationships as persons at law. The term “similar to the natural person’s legal status” proposed by these authors. It fails to clarify what combination of

⁵ Available at: URL: <http://slovardalja.net/word.php?wordid=3639> (accessed: 25.07.2023); URL: <http://slovarozhegova.ru/word.php?wordid=3741> (accessed: 25.07.2023)

rights, duties and penalties applicable in the event of default is meant. The authors' opinion is contrary both to provisions of civil law and approaches developed by its enforcement practices.

A number of scholars recognize AI's legal personality on the grounds that it is embodied in a "digital (electronic) person". In support for AI's recognition as a "digital person" with the relevant status, M. Aksenova refers to "the use of a legal fiction similar to that of a legal person" [Aksenova M.A., 2020: 18–24]. One would be hard pressed to accept such argument. A legal fiction is only possible once there is a person possessing other properties and qualities than those shared by natural and legal persons. Meanwhile, we know nothing of such persons at the moment.

The author believes doctrinal concept of a "digital (electronic) person" or "digital (electronic) personality" does not have any constitutive features, being a product of a mechanical combination of the concepts "electronic" and "person" (or "personality"). The unjustified accentuation of these categories does not hold as an argument in favor of "digital" persons being parties to "digital relationships". The category of "digital person" as an "embodiment" of "artificial intelligence" fails to provide any conclusive proof that this digital entity has a legal personality.

No activity by natural or legal persons in a digital environment will give rise to new "digital" persons at law. The parties to digital interactions are natural and legal persons who use their "digital projections". As a reflection of natural or legal persons at law in a digital environment, the digital projection cannot make up an independent "digital" person at law. Any recognition of new "digital" persons at law ("electronic person" or "digital personality") endowed with a special "digital" status is, in our view, baseless.

A doctrinal link between AI technologies and "digital persons" is wrong for a number of reasons. Firstly, an absolute identification of a specific person at law with his or her "digital projection" involves certain practical difficulties [Puchkov V.O., 2020: 143–158]. Secondly, a failure to recognize someone's digital projection by law does not allow to establish a legal link between a person and his or her digital projection. In this connection, it is equally impossible to assert a legal link between a person's "digital projection" and AI technology.

E. Lungu and A. Kartskhia propose to enshrine "personal digital status" in the Civil Code as well as recognize "digital personality" as a special person at law [Lungu E.V., 2020: 61–63]; [Kartskhia A.A., 2017: 17–26]. We be-

lieve that this step, if implemented, will undermine the actual link between a person at law and his or her “digital projection” and will give rise to artificial “persons” at law devoid of delict dispositive capacity. It is noteworthy that E. Lungu and A. Kartskhia do not take into account a controversial approach developed by enforcement practices in this regard.

Thus, only an identifiable person at law will act in a digital environment⁶. Meanwhile, the interested party has to prove that the person and his or her digital image coincide⁷. In our view, this approach is fraught with a number of practical problems. It is applicable where wrongdoers come into unauthorized possession of someone’s account or identity. Where a wrongdoer violates the third party rights through dishonest use of his “digital projection”, the affected party will have no remedy. Operators and proprietors of information systems do not normally disclose information to identify and authenticate users and are not liable for an incorrect procedure of personal identification or actions committed under an anonymous, somebody else’s or false “digital projection”.

Here is another example of wrong qualification of AI as a person at law. A. Serova endows an information system with the attributes of a person at law [Serova A.V., 2019: 65–71], with a data system, robotic device and a chatbot (application for computers, smartphones etc.) put on par.

A. Serova’s argument is not acceptable. An information system is a form of container for big data. The database and “artificial intelligence” are elements of big data. A data system cannot be confined to “artificial intelligence”. Equating AI and data system is wrong from the legal standpoint. In our opinion, a distinction should be made between data systems (transferable assets), their developers, proprietors and operators. The operator and proprietor (holder of the exclusive right) are liable for correct operation of the data system and observance of the rights of users and third parties.

While the operator (and/or proprietor) is a party to civil law relationships, the data system cannot be recognized as a person at law. The law on information and information technologies formally allows a natural person

⁶ See, for example, Arbitration Court of Moscow District Resolution of 03.07.2018 on case No. A40-73666/2017 // SPS Consultant Plus; Arbitration Court of Sakha Republic (Yakutia). Decision of 27.12. 2018 on case No. A58-5241/2014 // Ibid.

⁷ See, for example, 5th Arbitration Court of Appeal Resolution of 19.02. 2020 on case No. A51-330/2019 // SPS Consultant Plus: Judicial practice; 18th Arbitration Court of Appeal Resolution of 27.01. 2020 on case No. A76-40662/2018 // Ibid.

to act as data system operator⁸. Meanwhile, under the special law a data system operator — for example, an investment platform — can only be a legal entity (business company)⁹.

Private and public information systems¹⁰ are transferrable. Endowing these transferrable assets with the properties, “status” and “powers” of a person at law does not have any legal basis of its own and is a way for unfair proprietors to evade legal liability. In our view, there is no argument to support the qualification of AI technologies (data systems) as a special person at law.

According to D. Ponomareva and A. Barabashev, “artificial intelligence” may be of two types: “autonomous and subordinated AI”, the former endowed with the attributes of a person at law since, as these authors believe, they can produce intellectual assets [Ponomareva D.V., Barabashev A.G., 2020: 36–43].

According to Article 1228 of the Civil Code, an intellectual asset is created by “an individual whose work has produced it”. As was noted above, AI “creative” activities are enabled by the developer(s) of these technologies, first of all through the algorithms to “perform” specific actions. Any AI technology devoid of these algorithms will have no “ability” to create. Intellectual assets resulting from the “activities” of AI technologies will be authored by the creator(s) of these digital entities or anyone holding the relevant rights. If created by a legal person, they will be authored by the employee(s) of such legal person as part of their job.

Probably the issue of recognizing “artificial intelligence” as a legal person is best resolved by L. Yu. Vasilevskaya who wrote that insisting on a legal personality of “artificial intelligence” and endowing it (similar to natural and legal persons) with social and legal attributes of legal capacity, personality and delict dispositive capacity is a departure from the classical

⁸ See paragraph 12, Article 2 of Federal Law No. 149-FZ “On Information, Information Technologies and Data Protection” of 27.07. 2006. Collected Laws of Russia (hereinafter CLR), 31.07.2006, No. 31 (part 1), art. 3448.

⁹ See subparagraph 7, paragraph 1, Article 2 of Federal Law No. 259-FZ “On Raising Investments Through the Use of Investment Platforms and on Amending Specific Regulation of the Russian Federation” of 02.08. 2019. Available at: URL: <http://pravo.gov.ru> (accessed: 24.12.2022)

¹⁰ On the status of a data system operator see, for example, Article 8, Federal Law No. 572 FZ “On the Identification or Authentication of Individuals Through the Use of Biometric Personal Data, Amending and Voiding Specific Regulations of the Russian Federation”. Available at: URL: <http://pravo.gov.ru> (accessed: 29.12.2022)

principles of civil law since it is the legislator and not academics who endows persons with these legal attributes [Vasilevskaya L. Yu., 2021: 3–16]. For the same reason, no AI technology can be treated as a person at law.

Under another doctrinal approach AI is associated with a physical object (an item of property). Thus, S. Somenkov believes “artificial intelligence” to be an “AI-enabled thing”. According to this author, “artificial intelligence is similar to a child — a product of upbringing and education” [Somenkov S.A., 2019: 75].

Somenkov’s position appears to be wrong since defining the legal nature of “artificial intelligence” via its functional capabilities falls short of identifying the legal essence of AI technologies. A majority of modern devices are AI-enabled. Reducing their legal regime to that of things is to undo the legal role of inventors and programmers behind AI technologies. It is noteworthy that under paragraph 1, Article 1227 of CCR “intellectual property rights are independent from property and other material rights to physical media (things)”. In this connection, it is wrong from the legal standpoint to identify AI (or AI technologies) with physical media.

According to E. Sukhanov, a renowned scholar, “different things at law will differ in this respect by legal regimes rather than physical or economic properties” [Sukhanov E.A., 2017: 45]. Recognizing AI technologies as “AI-enabled things” is tantamount to erasing the boundaries between the legal regime of things and that of intellectual property. This will leave the rights of the developer, organizer or any person possessing the exclusive right to AI technology without legal recognition and protection.

An analysis of the classical definition of “education” suggests that its main feature is “consistent influence on mental and physical development of children”¹¹. In using AI technologies, persons at law provide specific information processed by the software that makes part of these digital systems. Meanwhile, the provision of information is not an equivalent of “consistent influence on mental and physical development” of AI technologies.

Paragraph 1 (2) and (3), Article 2 of Federal Law No. 123-FZ¹² of 24.04.2020 provides definitions of “artificial intelligence” and “AI technol-

¹¹ Available at: URL: // <https://slovardalja.net/?ysclid=lda3sf1rep508916409> (accessed: 25.07.2023)

¹² Federal Law No. 123-FZ “On the Experiment to Introduce Special Regulation for Creating Necessary Conditions for the Development and Introduction of AI Technologies in a Constituent Territory of the Russian Federation — Federal City of Moscow — and

ogy”. An analysis of these provisions reveals certain key attributes in the definition of each of these concepts. Both “artificial intelligence” and AI technologies are qualified as a structural systemic combination of complex technical objects (intellectual assets embodied in physical media (computers, smartphones, other devices etc.)). It is noteworthy that paragraph 3.5 of the Explanatory Memorandum to the EU draft artificial intelligence act explicitly emphasizes complexity as a feature of “artificial intelligence”¹³.

“Activities” by AI technologies can result in new things at law including intellectual assets. For instance, AI technologies can perform medical treatment (such as surgical intervention) or develop a new product or invention prototype commissioned by a customer. The roadmap for the development of cross-cutting digital technologies “Neurotechnology and artificial intelligence” specifically notes a possibility of using artificial intelligence to design complex objects¹⁴. We believe that AI technologies are inherently capable of designing complex objects because they have the complexity required to solve complex technical issues. Meanwhile, no AI technology can be deemed the author of the intellectual assets it “creates”.

The author is invariably a person at law possessing the exclusive right to the given AI technology or the right to use the intellectual asset under a licensing agreement. Such licensing agreement should presumably specify that the exclusive right to an intellectual asset created by the AI technology is attached to the license holder. Since only a natural person can own intellectual property (Article 1228, CCR), an intellectual asset will be authored by the proprietor (license holder) or by an employee thereof, where the former is a legal entity.

on Amending Articles 6 and 10 of the Federal Law “On Personal Data”. Available at: URL: <http://www.pravo.gov.ru> (accessed: 01.09.2023)

¹³ EU draft act on “artificial intelligence” (Proposal for a Regulation of the European Parliament and of the Council Laying Down Harmonized Rules on Artificial Intelligence (Artificial Intelligence Act) and Amending Certain Union Legislative Acts). 21.04.2021 COM (2021) 206 final 2021/0106 (COD). Available at: URL: // <https://artificialintelligence-act.eu/the-act/> (accessed: 01.09.2023). On 11.05. 2023 two committees of the European Parliament (on civil liberties and on single market) supported current wording of the draft. Available at: URL: <https://www.forbes.ru/mneniya/489701-vzalis-za-um-kakie-pravilaprimeneniya-iskusstvennogo-intellekta-vvodit-es?ysclid=ljid6lsiy0427221219> (accessed: 25.07.2023)

¹⁴ See Table 8, paragraph 3.11.1, roadmap for the development of cross-cutting digital technologies “Neurotechnology and artificial intelligence”. Available at: URL: <https://digital.gov.ru/> (accessed: 14.10.2019)

2. The Legal Regime of AI Technologies: Theory and Practice

AI technologies are intellectual assets which, as we know, are not subject to legal remedy (paragraph 1, Article 1225 of CCR). It is noteworthy that, compared to “artificial intelligence”, AI technologies can comprise several types of artificial intelligence for different applications. They can also comprise previously created intellectual assets. AI technologies include an invention that enables them to mimic human cognitive functions. According to S. Sinitsyn, “items of patent law could potentially cover all technologies across the board”. The author proves that “while computer software can be copyright protected, devices that use computer software or related inventions can be patent protected” [Sinitsyn S.A., 2022: 263, 311, 312].

Under paragraph 1, Article 27 of the TRIPS Agreement, “patents shall be available for any invention” in “all fields of technology”¹⁵. Meanwhile, paragraph 1, Article 52 of the European Patent Convention exhibits a questionable approach. While Article 52 reads that European patents shall be granted for any invention in all fields of technology¹⁶, paragraph 1 (2) of this Article does not regard “programs for computers” as inventions. Computer software is not recognized as an invention subject to patent law by virtue of EU Directive 2009/24/EU as well (paragraph 1, Article 1)¹⁷.

While sharing the position of researchers on the need in comprehensive protection of computer software, we believe it cannot be subject to patent law as an independent item. As part of AI technologies, computer software is technologically linked to other intellectual assets.

¹⁵ Agreement on Trade Related Aspects of Intellectual Property Rights (TRIPS) 15.04.1994. In Russia document entered into force on 22.08.2012 (SZ RF. 10.09.2012, № 37); International Investment Instruments: A compendium. Vol. I. New York–Geneva, 1996. P. 337–371.

¹⁶ European Patent Convention of 5.10.1973. Available at: URL: https://www.patika.ru/Skachat_PDF/Evropeyskaya_patentnaya_konvencija.pdf?ysclid=ljjypasohe606433405 (accessed: 25.07.2023)

¹⁷ See Directive 2009/24/EU of The European Parliament And of The Council of 23 April 2009 on the legal protection of computer programs (Codified version) (Text with EEA relevance). Available at: URL: <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32009L0024> (accessed: 25.07.2023). Article 1 Object of protection 1. In accordance with the provisions of this Directive, Member States shall protect computer programs, by copyright, as literary works within the meaning of the Berne Convention for the Protection of Literary and Artistic Works.

As was already noted, AI technologies are intellectual assets that under Article 1226 of the Civil Code “give rise to intellectual property rights including exclusive rights”. According to Article 128 of CCR, things at law include property rights such as exclusive rights¹⁸. Qualifying exclusive rights as a thing at law will give rise to the question of legal regime.

Things (physical objects) traditionally involve proprietary rights (Articles 209, 216 of CCR) as well as classical powers of ownership, use and disposal. The question is whether the regime applicable to things should be extended to exclusive rights. Article 250 of CCR provides for a sale of shares in a jointly owned property. Under paragraphs 2, 4, Article 454 of CCR, the general purchase and sale provisions apply to securities and property rights unless otherwise followed from the content or nature of these rights. By virtue of paragraph 1, Article 454, the seller is the one who owns a property. Meanwhile, Article 28 of the Federal Law “On the Securities Market”¹⁹ provides for a (property) right to paperless tradable securities. We believe that the legislator wrongly identifies the regime of paperless tradable securities with that of things because paragraph 1 (2), Article 142 of CCR associates paperless securities with “liabilities and other rights”.

The Supreme Court of Russia recognizes the assignment of a claim under a sale or donation agreement as legitimate (paragraph 4 of Article 454 and paragraph 1 of Article 572, respectively)²⁰. Meanwhile, according to V. Vitriansky, the provisions of Articles 382–390 of CCR “apply on a priority basis (with respect to the general provisions on purchase and sale of goods)” [Vitriansky V.V., 2005:17].

Thus, the ownership of a property right is recognized by law in a number of cases. However, the stance adopted by the legislator cannot be qualified as correct from the perspective of the principles of the law of pandects

¹⁸ In this regard, see, for example, Constitutional Court of Russia Resolution No. 10-P of 24.03. 2023 “On constitutionality check of paragraph 4, Article 1370 of CCR and paragraph 3 of the Rules for remuneration for service inventions, service utility models, service commercial prototypes in connection with a complaint by Hidrobur-Service, a limited liability company. Available at: URL: pravo.gov.ru, 27.03.2023; 9th Arbitration Court of Appeal Resolution of 15.05. 2018 on case No. A40-124668/2017. Available at: <https://kad.arbitr.ru/PdfDocument/> (accessed: 25.07.2023)

¹⁹ Federal Law No. 39-FZ “On the Securities Market” of 22.04.1996. CLR, No. 17, 22.04.1996, art. 1918.

²⁰ See the Supreme Court Plenary Resolution No. 54 “On certain issues of application of Chapter 24 CCR regarding the change of liable persons based on a transaction” of 21.12.2017 // Supreme Court of Russian Federation Bulletin, No. 3, March 2018.

and understanding of the property right and property items generally acknowledged by academic science in Russia. The question is whether the legal regime of things and that of property could be extended to exclusive rights. Before addressing this question, we need to identify the constitutive features of the exclusive right to an intellectual asset.

It is noteworthy that, according to E. Sukhanov, an attempt to extend the regime of proprietary interests to those qualified as “intangibles” has naturally failed [Sukhanov E.A., 2017: 45]. This conclusion also holds for the identification of the constitutive features of exclusive rights.

We believe that qualifying the exclusive right as an “intangible thing” and recognizing the right of ownership (or other proprietary right) to it is wrong. As we know, the property and other proprietary rights under the Russian law are related to triple powers (ownership, use and disposal). Article 1233 of CCR provides only for the disposal of an exclusive right. To prevent the extension of the regime of things to exclusive rights, the legislator prohibits to apply the provisions of Part II of CCR to intellectual property rights (paragraph 3, Article 1227). As we know, independent contractual arrangements — such as exclusive rights transfer agreements, licensing agreements and franchising agreements, not identical to purchase-sale and rental agreements are envisaged to dispose of the exclusive rights (Articles 1233–1237 of CCR). According to I. Zenin, “the disposal of exclusive rights exhibits principally important differences. By granting a non-exclusive license, license holder (grantor) does not lose the possibility of further using the property” [Zenin I.A., 2023]. We believe that the regime of things and, therefore, property right cannot apply to the exclusive right due to its special legal nature not identical to that of things.

Recognizing inventions as part of AI technology makes it fairly relevant to discuss and address the problem of dividing the exclusive right and apportioning shares.

According to Yu. Kharitonova, the judicial practice “absolutely rejects that exclusive rights are shareable” [Kharitonova Yu. S., 2018: 65–72]. The Supreme Court of Russia determination discussed by this scholar prohibits any division of exclusive rights into shares “because the provisions on shared ownership (Chapter 16 of CCR) cannot apply to intellectual property rights in principle”²¹. Later on the Supreme Court provided another

²¹ Supreme Court Decision No. 305-KG18-2488 of 03.12.2018. In Decision No. 287-PEK18 of 03.12.2018, the Supreme Court has dismissed a supervisory appeal to be considered at a session of the Supreme Court Presidium // SPS Consultant Plus.

justification of the prohibition to share exclusive rights. Thus, it was explained that while exclusive right to intellectual assets “can be held jointly by several persons”, it “does not mean that the said persons are entitled to divide the exclusive right they own and apportion shares”²².

In addressing the issue, one has to bear in mind that the exclusive right will arise in respect of IA²³ as a whole rather than its part. Meanwhile, O. Gutnikov and S. Sinitsyn conclude that “the current wording of paragraphs 2 and 3, Article 1229 CCR does not contain any explicit prohibition to divide the exclusive right owned by several holders into shares” [Gutnikov O.V., Sinitsyn S.A., 2019: 67–73].

It is noteworthy that the draft of the Federal Law “On Amending Part Four of the Civil Code of Russia”²⁴ envisaged the regulation of relationships between multiple parties on the intellectual property holder’s side including those related to division of the exclusive right into transferrable shares. If interpreted literally, provisions of paragraphs 2 and 3, Article 1229 of CCR do not explicitly prohibit any division of the exclusive right into shares.

As was already mentioned, AI technologies are complex intellectual assets created with possible involvement of a considerable number of people. Since the extent of personal involvement may vary, the size of shares of the exclusive right to AI technology will depend on the complexity and amount of tasks performed by each team member. The size of ideal shares to be apportioned will be determined by an agreement between the developers.

We believe that the applicability of the terms of such agreement is beyond doubt. Meanwhile, their interpretation by courts in the event of a dis-

²² Paragraph 35, Supreme Court Plenum Resolution No. 10 of 23.04. 2019 “On Application of Part Four of the Civil Code of Russia” // Supreme Court Bulletin No. 7, July 2019 (“SCP Resolution No. 10”). The Intellectual Property Court which previously admitted the divisibility of the jointly owned exclusive right into shares expressed in percent (see Intellectual Property Court Resolution No. S01-1002/2017 of 15.12. 2017 on case No. A40-210165/2016, now refers to paragraph 35 of SCP Resolution No. 10 of 23.04.2019. See, for example, Intellectual Property Court Resolution No. S01-592/2018 of 28.10.2019 on case No. SIP-540/2017 // Intellectual Property Court Resolution No. S01-811/2021 of 27.04.2021 on case No. SIP-955/2020 // Consultant Plus.

²³ IA — intellectual asset.

²⁴ See the draft Federal Law “On Amending Part Four of the Civil Code of Russia” developed by the Center of Competences of the Skolkovo Foundation pursuant to paragraph 01.01.004.011.001 “Drafting a Federal Law for improving the relationships between exclusive right co-owners” of the action plan of the federal project “Statutory Regulation of the Digital Environment”. Program Digital Economy of the Russian Federation. Available at: URL: <https://sk.ru/legal/> (accessed: 25.07.2023)

pute may pose problems. Since the law does not provide for a possibility to divide an intellectual asset into shares, the terms of the agreement on sharing the exclusive right to AI technology will be interpreted by courts with reference to the provisions of paragraph 35, SCP Resolution No. 10 where the Supreme Court explains: “The above does not mean the said persons are entitled to divide the exclusive right they own and apportion shares”.

It is believed the court is highly likely to void the agreement’s section on the division of the exclusive right to inventions that make up the technology. Where the said agreement provides the basis for other agreements to be concluded (such as for disposal of the shares of the exclusive right), they will be likewise voided (Article 168 of CCR). To justify their decision, courts may refer only to the lack of legal provisions on the divisibility of the exclusive right.

In view of the principles enshrined in Articles 1 (2) and 421 (2) of CCR, author of the paper believes that the contractual terms to divide the exclusive right to the AI technology into shares are implementing the rights of natural and legal persons to establish any terms not contrary to the law. These terms are not subject to restrictions related to protection of the fundamental principles of constitutional system, morals, health, rights and legitimate interests of others, as well as national defense and security (subparagraph 2, Article 1 (2) of CCR. The stance to void such agreements follows only from the fact that lower courts are required to abide by the Supreme Court’s interpretation of law.

In addressing the issue of divisibility of the exclusive right, we have to take into account the doctrinal understanding of exclusivity. Thus, V. Dozortsev, in characterizing the exclusive right to intellectual assets, believes it is exclusive not because of a single person’s ownership but because it is attached by federal law exclusively to a particular person(s) on the bases established by law [Dozortsev V.A., 2008: 120]. Thus, the researcher allows for multiple party ownership of the exclusive right to an intellectual asset. According to N. Scherbak, it is legitimate “to apportion ideal shares of the exclusive right co-owned by several persons”. The author believes that “a relevant agreement entered between the holders” will be qualified as a typical basis for apportioning ideal shares of the exclusive right [Scherbak N.V., 2021: 166–192].

Since a right is exclusive as long as the legislator recognizes it as vested in a particular person(s), this exclusivity will not be lost where the right is shared. In view of the ideal nature of shares, their apportioning will not re-

sult in the division of the intellectual asset as in the case of the mechanism envisaged by Article 133 (1) of CCR for property (things). Therefore, the division of the exclusive right to AI technology into shares is possible from the legal perspective.

Conclusion

The analysis of doctrinal and practical approaches to legal nature and legal regime of AI technologies suggests the following. The advocates of a doctrinal approach to recognize “artificial intelligence” as a person at law do not distinguish between “artificial intelligence” and AI technologies. Meanwhile, such “person” at law has no will. The analysis of the classical definition of “will” suggests it is mainly characterized by the freedom of behavior. AI technologies do not exhibit such freedom. The operational algorithm is built into AI technologies by the developer. These digital products are designed by their authors (natural persons or a team) as part of their job or under a statutory contract (commissioning contract or R&D contract). We believe that in “performing” certain actions, the AI technology follows the will of its developer/customer. In our view, AI technologies are not free to act since the variability of their behavior is determined at the time of development and depends on the will of their developers or customers (persons at law).

In view of author of the paper, the concept of “digital/electronic person” or “digital/electronic personality” proposed by the doctrine lacks constitutive features and results from a mechanical combination of the terms “electronic”, “persons” and “personality”. These concepts devoid of convincing justification do not support the recognition of special “digital” entities, parties to “digital relationships”. The category of “digital person” as the “embodiment” of AI provides no convincing argument in favor of legal personality of AI technologies. In this connection, we believe that intellectual assets are authored by the individuals possessing either the exclusive right to AI technologies or the right to use the said technologies under a licensing agreement to create intellectual assets.

A person at law is the operator of a data system, not the system itself which is a transferrable property and cannot be recognized as a person at law. Formally, the law on information and information technologies allows natural persons to act as data system operators. It is a legal person (business company) that operates a data system such as a digital financial platform

under the law. In this regard, we believe that the doctrinal approach that identifies the AI technology with the data system does not hold.

The approach identifying AI technologies with things is not acceptable. Recognizing AI technologies as “AI-enabled things” is tantamount to erasing the boundaries between the legal regime of things and that of intellectual property. This will leave the rights of the developer, organizer or any person possessing the exclusive right to AI technology without legal recognition and protection.

AI technologies to be a complex of technically sophisticated objects (intellectual assets) embodied in physical things (computers, smartphones or other devices). Complexity as a feature of “artificial intelligence” is explicitly states in paragraph 3.5 of the Explanatory Memorandum to the draft EU Artificial Intelligence Act.

Qualifying AI technologies as new intellectual assets is the only reasonable solution to the problem of their legal nature. AI technologies do not boil down to a sum of components that constitute them. AI technologies should be recognized as independent intellectual assets whose legal regime is not identical to that of their components.

AI technologies are not among intellectual assets subject to legal remedy (paragraph 1, Article 1225 of CCR). Meanwhile, they include a protectable invention. While sharing the position of researchers on comprehensive protection of computer software, we believe they cannot be patented as an independent object. Computer software is functionally related to other intellectual assets that make part of AI technologies. It has a sense to believe that computer software is patentable only in combination with other elements of AI technologies.

Under Article 1226 of CCR, AI technologies as intellectual assets “involve only those intellectual property rights that include the exclusive right”. This raises the question of applicability of the exclusive right regime to intellectual assets such as AI technologies. Pursuant to Article 128, things at law include property rights, in particular, exclusive rights but qualifying the exclusive right as a thing at law raises the question of the applicable legal regime. We believe that qualifying the exclusive right as an “intangible thing” and recognizing the right of ownership to it is wrong. As we know, independent contractual arrangements — for example, exclusive rights transfer agreements, licensing agreements, franchising agreements not identical to purchase-sale and rental agreements — are envisaged to dispose of the exclusive rights.

AI technologies are complex intellectual assets characterized by multiple ownership since a considerable number of persons may be involved in the process of their development. The extent of personal involvement in the development of AI technologies may vary, with the size of apportioned shares of the exclusive right to be determined by an agreement between the developers.

A right is exclusive because the legislator recognizes that it is attached to a particular person(s). One should distinguish the exclusive right to an intellectual asset from a property right to a physical medium (thing). We thus believe that the exclusivity will not be lost where an exclusive right is shared. In view of the ideal nature of shares, their apportioning will not result in the division of the intellectual asset as in the case of the mechanism envisaged for division of property (Article 133 (1) of CCR). Provisions of paragraphs 2 and 3, Article 1229, if interpreted literally, do not explicitly prohibit any division of the exclusive right into shares or apportioning of ideal shares of the exclusive right to intellectual assets. Therefore, the division of the exclusive right to AI technology into shares is possible from the legal perspective. Since the Supreme Court of Russia in its explanations prohibits to divide the exclusive right into shares and apportion these shares, we believe that paragraphs 2 and 3 of Article 1229 of CCR need to be amended through adoption of the provisions allowing to divide the exclusive right into shares and to apportion these shares.

References

1. Afanasiev S.F. (2022) Material and procedural legal personality of artificial intelligence. *Vestnik grazhdanskogo protsesssa*=Bulletin of Civil Process, no. 3, pp. 12–31 (in Russ.)
2. Aksenova M.A. (2020) The concept of “legal person” in the legal environment. *Yurist*=Lawyer, no. 7, pp. 18–24 (in Russ.)
3. Braginsky M.I., Vitriansky V.V. (2005) The contractual law. A textbook. Vol. 2: Property Transfer Agreements. Moscow: Statut, 840 p. (in Russ.)
4. Dozortsev V.A. (2005) Intellectual property rights. Concept. System. Codification objectives. Collected articles. Moscow: Statut, 416 p. (in Russ.)
5. Dremluiga R.I., Mamychev A. Yu., Dremluiga O.A., Matyuk Yu. S. (2019) Artificial intelligence as a subject of law: pros and cons. *Contemporary Dilemmas: Education, Politics and Values*, no. 1, p. 12.

6. Gutnikov O.V., Sinitsyn S.A. (2019) Multiplicity of ownership of the exclusive right: aspects of theory and practice. *Zakony Rossii: opyt, analiz, praktika*=Russian Laws: Experience, Analysis, Practice, no. 12, pp. 67–73 (in Russ.)
7. Kartskhia A.A. (2017) Digital imperative: new technologies create a new reality. *Avtorskoye pravo i smezhnye prava*=Copyright and Adjacent Rights, no. 8, pp. 17–26 (in Russ.)
8. Kharitonova Yu. S. (2018) Joint exercise of exclusive rights. *Pravo i ekonomika*=Law and Economy, no. 11, pp. 65–72.
9. Kuteinikov D.L. et al. (2019) Regulating human interaction with autonomous devices: legal regime discussion. *Zakony Rossii*=Lex Russica, no. 9, pp. 85–95 (in Russ.)
10. Lungu E.V. (2020) Constitutional relationships in light of transition to digital state: regulatory trends. *Rossiyskaya justitsiya*=Russian Justice, no. 2, pp. 61–63 (in Russ.)
11. Ponomarev D.V., Barabashev A.G. (2020) Patent protection of research outcomes and artificial intelligence: issues and challenges. *Pravo i tsifrovaya ekonomika*=Law and Digital Economy, no. 3, pp. 36–43 (in Russ.)
12. Puchkov V.O. (2020) Main aspects of the digital image of person at law in the civil doctrine and practice. *Arbitrazhniye spory*=Arbitration Disputes, no. 3, pp. 143–158 (in Russ.)
13. Scherbak N.V. (2021) An ideal share of the exclusive copyright: utopia or reality? *Vestnik grazhdanskogo prava*=Bulletin of Civil Law, no. 5, pp. 166–192 (in Russ.)
14. Serova A.V. (2019) Introducing digital technologies into relationships between persons working at a given employer. *Rossiyskiy yuridicheskiy journal*=Russian Law Journal, no. 5, pp. 65–71 (in Russ.)
15. Sinitsyn S.A. (2022) *Comparative patent law: current issues*. Moscow: Infotropik, 416 p. (in Russ.)
16. Somenkov S.A. (2019) Artificial intelligence: a thing or a person? *Vestnik Moskovskogo Juridicheskogo Universiteta imeni O.E. Kutafina*=Bulletin of Kutafin University, no. 2, pp. 75–85 (in Russ.)
17. Sukhanov E.A. (2017) Law of things: manual. Moscow: Statut, 560 p. (in Russ.)
18. Vavilin E.V. (2021) How artificial intelligence is transforming civil law and procedural relationships: shaping new legal regimes. *Vestnik grazhdanskogo protsesssa*=Bulletin of Civil Process, no. 6, pp. 13–35 (in Russ.)
19. Vasilevskaya L. Yu. (2021) "Artificial intelligence": problems of civil regulation. *Ekonomika i pravo*=Economy and Law, no. 10, pp. 3–16 (in Russ.)

20. Zenin I.A. (2023) Intellectual Property Law. Available at: Urait e-library. https://urait.ru/library?utm_=&ysclid=ljcuajhygi184594193 (accessed: 01.08.2023) (in Russ.)

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