

# Exercise of Civil-Law Rights: Categories in the Context of Their Digitalization

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## ABSTRACT

With digital rights designated to the objects of civil rights in Art. 128 of the Civil Code, Art. 141.1 amended to include their legal definition, and a new wording of Art. 309 introducing 'smart contracts', the digital reform recently enacted in the Russian civil law has seen some major novelties. Needless to say, these accomplishments have challenged Russian civil law theorists. Discussions are underway to resolve both doctrinal and applied issues that had been more than obvious well before the legislative move which, according to one of the opinions, was an 'admissible' experiment. What remains now is to assess its viability. The author of this work set the goal to explore the way digital rights, primarily those that arise from 'smart-contracts', are (or can be) 'exercised'. This is a perspective where a fundamental gap between 'smart-contract' and civil contract emerges. In the author's view, efforts to overcome it by expanding the concept of subjective rights and the principles of contract law will not succeed. Since no proper verification of the interests of the parties to 'smart contracts', which are essentially a computer code, is available, and as the same refers to linguistic verification of their will, there is no way for 'smart contracts' to enter the domain of law. Digital 'contracts' are unapt to honour the principle of contractual equilibrium. The 'self-execution' of these contracts, as well as their inherent inability to be violated, are, if put in the civilistic context, their fatal flaw, and by no means a virtue. The article also shows that though instruments to ensure a relative irreversibility of rights are not unfamiliar to private law, they cannot serve as an excuse for such regime in contract obligations. That fixation of rights and transactions in digital form has become fully enshrined in the civil law is arguably the only compatible with its principles as well as much anticipated impact the digital reform has brought about.

**Keywords:** digital rights, tokens, smart contracts, exercise of rights, abuse of right

## 1. Introduction

Moving in line with the times, Russian legislation sooner or later had to cope with the next threshold — digital rights. This was caused not only by the new economic reality, the generally accepted name of which — the digital economy — reads as an argument for this transition, but also by the prevailing conviction in the country's leadership that domestic law needs appropriate transformations<sup>1</sup>. February 20, 2019 in the Message of the President to the Federal Assembly of the Russian Federation, the phrase sounded: "All our legislation needs to be adjusted to the new technological reality"<sup>2</sup>. The scientific component of the context of digital reform has become an ideological environment in which awareness of the phenomenon of "post-truth" and the risks it generates for verification procedures in the legal system leads to assumptions about the expediency of using technological models that eliminate the need to preserve both the requirement and the presumption of good faith<sup>3</sup>.

The need to digitalize the legal support of the economy, and in the form of a system project, probably cannot be doubted by any Russian civilist. However, the most important question is which categories of civil law are in principle open to symbiosis with digital phenomena. Are we talking only about the urgent need to consolidate a workable regime of the digital form of the rights themselves, actions for their acquisition and implementation, as well as for the performance of duties, or should civil legislation absorb a new meaningful reality — to allow the existence of digital rights and digital contracts other than "ordinary" ones, which have long been called "smart contracts"?

Since the developers of bill No. 424632-7 have set themselves the task, as indicated in the explanatory note<sup>4</sup>, to "settle relations regarding the use of crypto assets, primarily such as cryptocurrencies and tokens,"<sup>5</sup> they either did not put this

<sup>1</sup> Presidential Decree No. 203 of May 9, 2017 approved the Strategy for Development of Information Society in the Russian Federation for 2017–2030, and Decree No. 490 of October 10, 2019 approved the National Strategy for Development of Artificial Intelligence for the period up to 2030.

<sup>2</sup> Gabov A. V., Khavanova I. A. Crowd-funding: legislative registration of the web-model of financing in the context of legal doctrine and foreign experience. Bulletin of the Perm University. Legal Sciences. 2020. Issue. 47. P. 41.

<sup>3</sup> See Arkhipov V. V. Is Law Possible in the Era of Post-Truth? Law. 2019. No. 12. P. 68–69.

<sup>4</sup> Explanatory Note (State Duma Committee on State Construction and Legislation) to the Draft Law No. 424632-7 "On Amendments to Parts One, Two and Article 1124 of Part Three of the Civil Code of the Russian Federation (On Digital Rights)" [Electronic resource] URL: <https://sozd.duma.gov.ru/bill/424632-7> (date of access: 27.06.2021).

<sup>5</sup> Konobeevskaya I. M. Digital rights as a New Object of Civil Rights. Bulletin of Saratov University New series. Series: Economy. Management. Law. 2019. Vol. 19. Issue. 3. P. 331.

question before themselves, or they gave a definite answer to it that satisfied them. However, this answer, as well as the constructions that were based on it created by the authors of the project, categorically did not suit the Council under the President of the Russian Federation for Codification and Improvement of Civil Legislation: "What is meant by digital rights in the Project is actually only the registration of traditional property rights, and of a completely different nature — property rights, binding rights, corporate rights, exclusive rights and even personal non-property rights (the latter — contrary to the provisions of the Project<sup>6</sup>). The bill underwent a paradigmatic revision, the result of which was embodied in Federal Law No. 34-FZ of March 18, 2019 "On Amendments to Parts One, Two and Article 1124 of Part Three of the Civil Code of the Russian Federation" (hereinafter the Law on Digital Rights). A short time later, Federal Law No. 259-FZ of 02.08.2019 was adopted "On Attracting Investments using investment platforms and on Amendments to Certain Legislative Acts of the Russian Federation (hereinafter referred to as the Crowd-funding Law). The first stage of digitalization in Russian law has been completed by Federal Law No. 259-FZ dated 31.07.2020 "On Digital Financial Assets, Digital Currency and on Amendments to Certain Legislative Acts of the Russian Federation" (hereinafter referred to as the Law on Digital Financial Assets). What exactly became known as "digital rights" and how the scientific community reacted to it will be briefly discussed later. In the introduction, the work should indicate the essence of the scientific problem that will be touched upon in it. And for this, it is important to point out that regardless of the reality brought by the digital reform in *lex lata*, the reality that the supporters of digital rights *de lege ferenda* have in mind, the civilistic doctrine may deny the ability to possess the properties attributed to it.

It seems that the Russian legislator was again guided by the vicious paradigm of the inadmissibility of deviations from the samples of the "civilized world". This kind of intellectual reflex that developed in the 90s of the last century, at the end of this period, made itself felt in the unequivocal denial of the ability of Russian law to organic development<sup>7</sup>, but it steadily works in the current lawmaking. The rejected version of the Digital Rights Act was hastily replaced. Criticism "digital rights" and "digital contracts" some scholars "civilized world"<sup>8</sup>, you can try not to notice.

The most important novelties of the reform were the inclusion of "digital rights" as objects of civil rights (Article 128), their legal object categorization (new Article 141.1) and an attempt to legitimize smart contracts in the new part of Article 309. The indication of the incompleteness of the last action is explained not only by the fact that the legislator did not dare to use the term *expressis verbis*, and the doctrine doubts both its conceptual boundaries and the right of the concept to exist, but also by the fact that even if *de lege lata* is described in this norm, what could be agreed and accepted as a "smart contract" in one or another conventional meaning, the author of the work considers a "smart contract", or rather the reality arising on its basis, that is, allegedly contractual digital rights, as well as their implementation, unable to fit into the boundaries of the law of obligations and, probably, civil law in general.

Here I come to the definition of the subject of the work: as far as possible, avoiding participation in the discussion of the qualities of smart contracts and digital rights, which is already being conducted in the scientific literature<sup>9</sup>, I would like to explore the problems of the implementation of digital rights. The aim is to show that digital rights arising through smart contracts do not correspond to the nature of subjective civil law, including those arising in a contractual legal relationship; these digital rights cannot be exercised in the same way as any subjective rights can be exercised; they cannot be changed and brought into a contractual balance; they cannot be violated, which perhaps gives the best evidence of their unsuitability for civil circulation. You will have to start the work by drawing the reader's attention to the most concise presentation of the theses of the theory of the exercise of subjective rights, which is presented in the works of the author.

## 2. Interest and subjective right. Verification of interest

A subjective right is always the legal embodiment of a private interest: in the case when the interest is absent or does not reach the appropriate level (due, for example, to its focus on benefits other than those to which the interest is directed, for the satisfaction of which this right is designed), it should not be recognized by the court. Subjective contractual law arising on the grounds established by positive law, i.e. imperative or not rejected by a dispositive norm, expresses an imputed interest,

<sup>6</sup> Expert Opinion on Draft Federal Law No. 424632-7 "On Amendments to Parts One, Two and Four of the Civil Code of the Russian Federation". Adopted at the meeting of the Council on April 23, 2018 No. 175-2/2018. Page 3 [Electronic resource] URL: <http://privlaw.ru/wp-content/uploads/2018/05/meeting-156-conclusion-2.pdf> (date of access: 25.06.2021); hereinafter Expert opinion.

<sup>7</sup> "The conservative model of social development has no future in Russia, not because it is bad, but because of lack of continuity in the historical movement of the country and its legal system. [...] The organic concept of society, state and law can be realized only where respect for another person is associated with guarantees of freedom of expression and, at the same time, with possibility of protection from unlawful encroachment on a person by other people and authorities. (Chernokov A.E. The Future of Law (futurological notes). Spiridonov Conference: Actual problems of the theory of law. Issue 1–2.

Scientific editor I.L. Chestnov. St. Petersburg: Publishing House of the St. Petersburg Institute of Law named after Prince P.G. Oldenburg. P. 127.) The author's idea is clear: in view of the fact that Russia is deprived of all of the above, its legal system is completely incapable of evolution on the basis of self-regulation.

<sup>8</sup> See Kolber Adam J. Not-So-Smart Blockchain Contracts and Artificial Responsibility [Electronic resource] Stanford Technology Law Review. Vol. 21. Issue 2. 198 (2018). P. 198–234. URL: [https://www-cdn.law.stanford.edu/wp-content/uploads/2018/09/Kolber\\_LL\\_20180910.pdf](https://www-cdn.law.stanford.edu/wp-content/uploads/2018/09/Kolber_LL_20180910.pdf) (date of access: 27.06.2021).

<sup>9</sup> Thus, the article will not touch upon the problem of attributing digital rights to objects of civil rights, but from the author's judgments, his agreement with those scientists who consider this a mistake should be clear.

which consists in a logical dichotomy and an actual dialectical contradiction with a real interest<sup>10</sup>. Subjective law, based on the condition of the contract formed by the will of the parties (deviation of the dispositive norm or arising in a permissive field), always expresses the real interests of the parties under identical terms of the contractual transaction<sup>11</sup>.

Verification of the interest expressed in subjective law occurs in the first case on the basis of the presumption of conformity (uncritical deviation<sup>12</sup>) of the real interest from the imputed one, in the second — on the basis of understanding the contract as a balance of interests of the parties, where the interests of each party are assumed to be perfectly recognized by it, and any condition of the achieved balance is their ideal expression, which is identical to the presumption of any condition and the contract as a whole as an ideal expression of the common interest of the counterparties<sup>13</sup>. Verification must take into account the dynamics of the interests of the parties, which may lead to the adaptation of the contract to significantly changed circumstances (*clausula rebus sic stantibus*) or even to the termination of the contract if it is impossible to achieve a new balance; partial reconfiguration of the contractual balance also occurs by changing the regime of performance of obligations (suspension or refusal of performance, art. 328, exception on *adimpleti contractus*)<sup>14</sup>. Verification of the state of interest expressed in contractual subjective law should be carried out because of “hierarchically applied signification schemes”<sup>15</sup>. An obvious condition for performing such a reconfiguration of the contractual balance is to compare the results of the verification of the interest expressed in contract law with the semantic verification of the contract condition. The latter is divided into two stages: the first, which is referred to in the first paragraph of Article 431, is linguistic, the second, provided for in the second paragraph, certifies the correctness of judgments about the terms of the contract based on the environment of its conclusion<sup>16</sup>. In this work, we will need to address only the linguistic stage, and only within the limits determined by the objectives of the study.

### 3. Linguistic verification

No linguistic method of interpretation can be free from such a construction of the signifier (*le signifiant*), which uses the experience of individual word usage. In other words, the signifier is always set by the individual context. Dictionary values are nothing more than the values that are set by the most frequent word usage. In addition, in the contract, the context of words and expressions is formed conventionally — in the form of conditional meanings established by a formal or definitive protocol of interaction. This further reduces the value of dictionary meanings and, as a result, makes it unsuitable for the purposes of contractual law to translate contractual terms into computer program algorithms.

### 4. Impossibility of civil law verification of interests in a digital “contract”

Russian legislation in the form in which it came because of digital reform proceeds from the fact that digital law, and therefore the digital contract, are not in a legal, but a software environment (Article 141.1 of the Civil Code, paragraph 3 of Article 8 of the Law on Crowd-funding, paragraph 2 of Article 1 of the Law on Digital Financial Assets)<sup>17</sup>. It is noted in the literature that the term “digital rights” used in our legislation is genealogically unrelated to the public legal category of digital rights, which designates the so-called “new generation human rights”<sup>18</sup> in the relevant legal systems. The legislator originally was going to use this term instead of little use for our right idea “token”<sup>19</sup>, both in the civil code and the Law on crowd-funding,

<sup>10</sup> See Volfson V.L. Counteracting the Abuse of Law in Russian Civil Law. Moscow: Prospect, 2017. P. 10–26.

<sup>11</sup> Volfson V.L. Peculiarities of Abuse of Law in Contractual Relationship. Portal “Zakon.Ru” [Electronic resource] URL: <https://clck.ru/RyGEB> (date of access: 25.06.2021).

<sup>12</sup> The rejection criteria are described in the monograph “Counteracting the Abuse of Law in Russian Civil Law” and in many other works of the author.

<sup>13</sup> Volfson V.L. Peculiarities of Abuse of Law in Contractual Relationship. Ibid.

<sup>14</sup> See Volfson V. L. Relationship *exceptio non adimpleti contractus* and *clausula rebus sic stantibus* as ways to restore the balance of interests: theory and modern development. Leningrad legal journal. 2020. No. 4 (62). pp. 101–103.

<sup>15</sup> Volfson V.L. The language of dogma: bypass is impossible. The World of Legal Science. 2012. No. 6. P. 17.

<sup>16</sup> This sequence, indisputable for us and very important for law enforcement, unfortunately, did not even deserve to be mentioned in the Decree of the Plenum of the Supreme Court of the Russian Federation of December 25, 2018 No. 49 “On Some Issues of Application of the General Provisions of the Civil Code of the Russian Federation on Conclusion and Interpretation of a Contract”.

<sup>17</sup> But there are differences. Paragraph 1 Article 141.1 of the Civil Code of the Russian Federation as amended by the Law on Digital Rights delegates to the information system the competence (the term of legislative technique, I believe, is appropriate here) to determine content and conditions for exercise of digital law, while paragraph 2 specially states that exercise of the right is possible only in the information system without turning to a third party; Part 3 Article 8 of the Law on Crowd-funding indicates that a “utilitarian” digital right should arise as such on the basis of an agreement concluded using an investment platform, i.e. an information system (due to the legal definition of the term in paragraph 1 part 1 Article 2), but at the same time, content and conditions for the exercise of utilitarian digital rights are determined by a person attracting investments (part 4 of the same article); in the Law on Digital Financial Assets for the purposes of adoption of this law, digital “rights” are treated only as tokens and crypto-currencies (clause 2 of article 1): issue, accounting and circulation of such assets — and they, by virtue of this definition, are digital rights — is only possible by introducing (changing) records in an information system based on a distributed registry, as well as in other information systems.

<sup>18</sup> Rozhkova M.A. Digital Rights: Public Law Concept and Concept in Russian Civil Law. Economy and Law. 2020. No. 10. P. 2–3.

<sup>19</sup> See Novoselova L., Gabov A., Saveliyev A. et al. Digital Rights as a New Object of Civil Law. Law. 2019. No. 5. pp. 31–54; Rozhkova M. A. Cited Op. P. 11.

in which the concept “token investment project” gave place “utilitarian digital rights”<sup>20</sup>. However, in the final version of the Law on Digital Rights, in which there is a rejection of the idea of distributed registries, the latter turned, according to one opinion, into “any rights recorded in digital form”<sup>21</sup>. Other researchers, agreeing with this judgment in general, rightly, in our opinion, point out the presence of two essential predicates in the new legal regime: first, digital rights should be called such in the law, and, secondly, “they should be acquired, exercised and alienated on an information platform that “meets the criteria established by law”<sup>22</sup>. And although “the Civil Code of the Russian Federation does not establish technical requirements either for the information system or for digital rights proper”<sup>23</sup>, at the same time it is obvious that these rights “should not exist in the digital environment autonomously, but only in conjunction with a certain information platform”.<sup>24</sup> In the context of our work, it is this predicate of digital rights legitimized in Russian law, recognized and irreducible to form invariance that will be important.

In blockchain technology, transaction verification takes place through the efforts of so-called “miners” and with the help of time stamp technology (indicating the time of the transaction). Any operation entered the block receives a cryptographic identifier (hash), which is added to the header of the record of each subsequent transaction<sup>25</sup>. Interfering with the chain of records makes no sense because it would discredit the entire system. This creates a single “truth” of the blockchain, that is, verifies all transactions carried out, allowing not only to accurately, but also without the possibility of revision to determine the ownership of rights at each individual moment<sup>26</sup>. This verification method is based on the idea of the inventor of bitcoin Nakamoto about the need to use cryptographic code in distributed registries, which would create mutual trust without the need for external verification<sup>27</sup>.

But such a modality of truth is provided exclusively by the hermetic or, as someone would say, “niche” modality of the ontology of digital rights, namely their stay in the field of work (and for verification purposes — in the field of meanings) of the information system, outside of which, according to the concept implemented in Article 141.1 of the Civil Code, as well as in paragraph 3 of Article 8 of the Law on Crowd-funding and in paragraph 2 of Article 1 of the Law on Digital Financial Assets, as already emphasized, digital rights do not have legal existence. And this being is incapable of being a true expression of the interests of the parties, especially in their variability, not to mention the applicability of the doctrine of *clausula rebus sic stantibus*, which is also recognized by supporters of the legitimation of smart contracts in civil circulation: A.I. Savelyev writes about the “significantly reduced adaptability of the terms of a smart contract to changing circumstances.”<sup>28</sup> Such virtuality, and in the original meaning of this term, which is currently used to denote digital reality, inevitably generates other problems of legal implementation, primarily at the border of the transition to genuine reality, which has already been paid attention to<sup>29</sup>. In fact, the immanent understanding of the subject of property law for the continental family simply excludes the presence of legitimate digital counterparts for such a subject.

The described verification allows only to establish the fact of the operation, but it has nothing to do with the interest of the subject, and even more so with the assessment of his condition. Since, as already mentioned, subjective civil law is nothing more than a legally recognized private interest, and an assessment of the state of interest in the mode of a refutable presumption of its sufficiency is nothing more than a necessary condition for the exercise of subjective rights, because this is the only way to maintain the balance of contractual equilibrium, as well as to check this state for critical deviations (forming an abuse of law), insofar as these digital records are anything but subjective civil rights and certainly not that reality, which is open to testing for the preservation of contractual balance and signs of abuse.

Thus, verification of the interests of the parties is excluded by the essence of the so-called “digital contracts”. In view of this, this technological reality is beyond the limits of contract law.

## 5. The impossibility of linguistic verification of the “terms” in the digital “contract”

There is no doubt that verification of the terms of a smart contract is incompatible with linguistic methods of verification (interpretation) of the contract, since a computer program cannot consider contexts, ideally it can work with individually

<sup>20</sup> Gabov A.V., Khavanova I.A. Crowdfunding: Legislative Registration of the Web-Model of Financing in the Context of Legal Doctrine and Foreign Experience. Bulletin of Perm University. Legal Sciences. 2020. Issue. 47. P. 41.

<sup>21</sup> Konobeevskaya I.M. Digital rights as a New Object of Civil Rights. Bulletin of Saratov University New series. Series Economy. Management. Law. 2019. Vol. 19. Issue. 3. P. 331.

<sup>22</sup> Rozhkova M. A. Cited Op. P. 12.

<sup>23</sup> Akinfeeva V.V. Utilitarian Digital Rights in Modern Conditions of Economic Transformation. Perm Legal Almanac. 2020. No. 3. P. 401.

<sup>24</sup> Ibid.

<sup>25</sup> See Savelyev A.I. Contract Law 2.0: “Smart” Contracts as the Beginning of the End of Classical Contract Law. Bulletin of Civil Law. 2016. Volume 16. No. 3. P. 32–60.

<sup>26</sup> Ibid.

<sup>27</sup> Original: What is needed is an electronic payment system based on cryptographic proof instead of trust, allowing any two willing parties to transact directly with each other without the need for a trusted third party. Nakamoto S. Bitcoin: A Peer-to -Peer Electronic Cash System [Electronic resource] URL: <https://bitcoin.org/bitcoin.pdf> (date of access 27.06.2021).

<sup>28</sup> See A.I. Savelyev, Some Legal Aspects of the Use of Smart Contracts and Blockchain Technologies Under Russian Law. Law. 2017. No. 5. P. 94–117.

<sup>29</sup> Ivanov N.V. Implementation of Digital Rights under the Civil Code and the Crowd-funding Law. Portal “Zakon.Ru” [Electronic resource] URL: <https://clck.ru/Vk9HQ> (date of access: 25.06.2021).

specified word usage. Proponents of smart contracts believe that the programming language “causes an increased degree of certainty of such a contract and the absence of the need to apply traditional means of interpreting the contract to it”<sup>30</sup>, but the arguments given show that this is not the case<sup>31</sup>. Unsuitability for the purposes of linguistic verification is easily visible when it is necessary to establish the meanings of words and expressions used in marginal linguistic conventions (non-dictionary meanings). Thus, the meaning of the expression “to recruit someone”, which, despite the profanity, is obvious to competent speakers of modern Russian, if this expression in such a meaning (for example, to describe responsibilities for information interaction) is included in the contract, can never be understood correctly by a computer program, unless this usage is introduced into it. Once, at the beginning of the XX century, the word “call” was equally profane in the same meaning. Of course, this is just an example — by creating interaction protocols, the parties will try to exclude unclear and, above all, obviously non-normative conditions when writing a program. However, it shows that it is impossible to program an unambiguous meaning — linguistic verification is always contextual. The very presence of so-called README files accompanying programs already suggests that comments on the program, that is, clarifications of the values set by its source code, will be inevitable. Another good example is the expansion of the meaning of the English word *vehicle* far beyond the dictionary meaning in the famous case *Garner v. Burr* (considering the context of the interpreted norm, it was interpreted by the court not as a “vehicle”, but as “any moving vehicle put on wheels”)<sup>32</sup>.

The absurdity of attempts to translate a contract into a computer language will be even less tolerable, because the obligations of the parties in a digital contract, for the purposes of its self-fulfillment, i.e. execution by a computer program, are formulated in the form of rules made dependent on the occurrence of not a moment in time (this would introduce even greater uncertainty due to consideration of counter-execution), but stipulated circumstances that may not have a model nature (and vice versa, express isolated cases)<sup>33</sup>. Since the probability of describing such circumstances through non-standardized vocabulary is objectively higher than the usual conditions of contractual interaction, the probability of linguistic deviations and, consequently, distortion of their meaning in a computer language also objectively increases.

The mode of terminological interaction, which is used in a computer program, should be called protocol: in it, the values expressed in the programming language are agreed upon in advance or are considered agreed upon. As already shown, such a language cannot be considered appropriate for the purposes of linguistic verification of the terms of a civil contract. However, if we imagine, as a working hypothesis, that the parties have agreed on such a protocol, if not with respect to each element of the language, but in the form of an agreement to consider all its elements as agreed, then this will create, albeit only in theory, and not in reality, legal civil turnover, albeit an extremely impractical instrumental verification of the “conditions”. In this case, linguistic revision of the conditions will not be possible: no matter how the meaning in which the code element is used differs from the understanding of the corresponding condition (quite likely justified by the context) by the party to the transaction, the latter will have to be understood only in this meaning. It cannot be said that the logging of contractual interaction, especially in terms of information duties, would be foreign to private law. At one time in civil aviation, the requirements for negotiations between pilots and ground services acquired the form of a formalized protocol: after the largest disaster in the history of Tenerife in 1977, one of the reasons for which was the different understanding of the terms used by the dispatchers and the crew when leaving the aircraft on the runway, it was decided that the terminology used to issue a take-off permit and confirm the receipt and understanding of this permission, will be strictly fixed; in addition, a number of commands must be repeated by the addressee of the message<sup>34</sup>. This kind of protocol conventionalization of transaction values cannot but remind of the language used for data exchange between computers and for computer commands themselves. It also resembles the formalization of legal enforcement through publicly reliable instruments — such as securities, certificates of title, etc. Of course, this is explained by the need to ensure the irreversibility of the exercise of certain categories of rights (including the non-incompatibility of objections to them). But it will be shown below that in the civilistic sense, such irreversibility cannot be a universal regime, and becoming one, it will lead the described type of interaction beyond the limits of private law.

## 6. Irreversibility of rights as a defect of digital “contracts”

The inability to revise or cancel the terms of digital contracts is another irremediable defect. Strategy described above verification “transaction”, i.e., transactions and their execution used in smart contracts eliminates “reversibility”: outside

<sup>30</sup> Saveliev A.I. Contract Law 2.0: “Smart” Contracts as the Beginning of the End of Classical Contract Law. Bulletin of Civil Law. 2016. V. 16. No. 3. P. 45. Another problem of verification — the actual values expressed by means of a computer language — is impossibility of eliminating a program error and is recognized by A.I. Saveliev in a later work (Saveliev A. I. Some Legal Aspects of the Use of Smart Contracts and Blockchain Technologies under Russian Law, Law, 2017, No. 5).

<sup>31</sup> See also Kolber Adam J. op. op. pp. 214–223.

<sup>32</sup> See T. Endicott. Law and Language. Stanford Encyclopedia of Philosophy [Electronic resource] URL: <https://plato.stanford.edu/entries/law-language/> (date of access: 27.06.2021). The author’s analysis is presented in the work: On the Correct Meaning of the Word *Vehicle* [Electronic resource] Portal “Zakon.Ru”. URL: <https://clck.ru/Vjp8w> (date of access: 27.06.2021).

<sup>33</sup> Saveliev A. I. Op. cit.. P. 46.

<sup>34</sup> The Tenerife Airport Disaster — the Worst in Aviation History [Electronic resource] URL: <https://www.tenerife-information-centre.com/tenerife-airport-disaster.html> (date of access 30.06.2021).



intervention in blocks of entries is impossible, since it would deprive “trust” entire chain of records; however, in case of an error in the program code revision transaction inevitable<sup>35</sup>. As already mentioned, this absolutely does not correspond to the nature of subjective civil rights both in their synallagmatic contractual dynamics and in the dialectic of imputed and real interests, immanent to the rights that arose because of the provisions of positive law.

To make clear the difference between digital contracts and a “regular” contract, they are often compared with contracts concluded through a vending machine. The computer program, after its launch, is completely independent in determining and directing the interaction of the parties, whereas the automaton is controlled by the will of the subject, and the automatism of further legal implementation -execution) is, of course, an imaginary, behind which lies the volitional actions previously agreed by the parties and made dependent on the occurrence of certain circumstances. Another visual comparison is with non-documentary securities. Digital rights are not rights at all, but, as already noted in the literature, a way of fixing assets<sup>36</sup>; according to one of the common points of view, non-documentary papers have the same nature. But in the case of digital “rights” arising from smart contracts, fixation is removed from the discretion of the subject<sup>37</sup>. This property gives smart contracts self-fulfillment, as well as immunity against violations. But the fact that for supporters of smart contracts progress, for us is an unambiguous sign of incompatibility with civil law.

The new version of Article 309 of the Civil Code, namely the second paragraph introduced into it by the Law on Digital Rights, in which the legislator allowed the fulfillment of obligations arising from a contractual transaction “upon the occurrence of certain circumstances without a separately expressed additional will of its parties aimed at fulfilling the obligation through the use of information technologies defined by the terms of the transaction”, faced harsh criticism in the Expert Opinion (see also in the introduction to this work). So, in p. 4.5 Of the expert opinion, it was rightly pointed out that “no automated performance of the obligation exists in nature” and, further, that “by making a corresponding transaction, the terms of which provide for the production of performance through software or hardware, its party agrees to such a form of expression of its will in the performance of the obligation, and in some cases has an impact on this process.”<sup>38</sup> As you can see, the category of “automated execution” The Council fits into a semantic space based on the principles and values of the law of obligations, where it would probably correspond to legal relations arising based on transactions made with the help of an automaton. The ideologists of smart contracts could readily object to this, referring to the differences already mentioned above between a smart contract and such transactions, but this difference — the irreversibility of execution due to the lack of control of the parties to the transaction — just takes smart contracts beyond the limits of the law of obligations and, in fact, rights in general. Obviously, being aware of such an objection, the authors of the conclusion give him a correct assessment in advance: “The rule of law cannot avoid attributing improper execution either with someone’s will, or with chance or with force majeure. The limitation by the Draft of the possibility of protecting the rights and legitimate interests of the parties to the transaction in these cases does not comply with the Constitution of the Russian Federation and contradicts the principles of civil law”<sup>39</sup>. According to the conclusion of the Expert Opinion, the bill “cannot be supported for conceptual reasons”<sup>40</sup>. Unfortunately, the position of scientists did not prevent the adoption of the law, including Article 309, in the version submitted to the Council for consideration.

### 7. Abstractness of rights, known in civil circulation

Civil turnover has always, but especially with the development of the need for a current loan, needed tools that ensure not only the irreversibility of volitional acts, but also the non-incompatibility of certain rights of any objections. This is how securities arose, the rights of which have an abstract nature — no objections of the person responsible for the execution will be accepted if they are not related to the security or are not based on his relationship with the owner of the security. Nevertheless, the analogy with securities is inappropriate for attempts to justify the introduction of “smart contracts” into circulation.

Firstly, the recognition of abstract rights by the turnover is always aimed at special tasks, the solution of which is impossible without the indisputability of these rights. Such tasks and, consequently, the fixation of rights predetermined by them constitute a clear and very small minority in relation to other interests of the exercise of civil rights.

Secondly the right expressed in the paper retains independence from the ground of origin only insofar as it is not compromised by a conflict of the owner’s intentions regarding this ground<sup>41</sup>, which occurs when the owner knew that the ground may be missing or legally defective (Article 145). It is appropriate to recall that this rule also applies to non-documentary securities by virtue of clause 3 of Article 149.1. Thus, the similarity of the legal-object evolution of digital rights noted by some researchers with non-documentary securities cannot affect the problem of legal implementation: it is never

<sup>35</sup> See A.I. Saveliev, Some Legal Aspects of the Use of Smart Contracts and Blockchain Technologies under Russian Law. Law. 2017. No. 5. P. 94–117.

<sup>36</sup> Konobeevskaya I. M. Op. cit. P. 332.

<sup>37</sup> This natural assimilation is discussed in many works. See, for example, Akinfeeva V.V. Op. cit. P. 401.

<sup>38</sup> Expert Opinion. P. 10 [Electronic resource] URL: <http://privlaw.ru/wp-content/uploads/2018/05/meeting-156-conclusion-2.pdf> (date of access: 25.06.2021).

<sup>39</sup> Ibid.

<sup>40</sup> P. 14 Expert Opinion.

<sup>41</sup> The conflict of intentions regarding the rightful grounds is expressed, according to the theory presented in the author’s works, in the category of “bad faith”. See, for example, Volfson V. L. Bad Faith as a Diagnosis of Abuse of Subjective Civil Law. Moscow: Prospect, 2019.

irreversible for a security, which ensures that it (and the rights arising from it) preserves the nature of a civilistic instrument. No civil rights can generate irreversible (programmed) implementation. Moreover, in a contractual legal relationship, due to the interactive environment it creates, there cannot be any absolute categories, except for those that express the legal constitutive features of the subject of description (for example, named contracts or the individuality of any immovable thing).

Thirdly, abstractness can only be a property of a unilateral transaction: a contractual transaction, because it represents the will formation of two subjects, cannot but include an agreement on a *causa*, that is, on a matrix of agreed interests that predetermines future interaction. Any contractual right expresses not only the autonomous interest of the rightsholder, but, again, the entire configuration of the interests of the counterparties, and brought by the transaction into a state of agreed harmony. However, smart contracts are not unilateral transactions — they are a bilateral interaction, and their ideologists would like this interaction to be considered legal. But from what has been said, the futility of this idea is evident.

## 8. Indisputability as a regime of rights arising by virtue of their registration

Indisputability is also characteristic of public-legal methods of fixing rights and statuses, including private-legal ones. The doctrine has different opinions on whether the system of registration of rights applied in Russia follows the principle of incorporation or the principle of opposability<sup>42</sup>. The first principle presupposes the complete indisputability of rights, the second one — their fixation, which would shift the risks of costs in case of long-term or critical encumbrances to the person who benefits from such encumbrances. However, both principles, regardless of the outcome of the discussion, do not exclude the reversibility of rights or encumbrances arising from the registration record. The principle of making allows the cancellation of the record itself, if the unfitness of the grounds for its commission is proved (for example, the invalidity of the transaction), with the principle of opposability, we are not actually talking about the task of overcoming the force of law (such is considered to have arisen by virtue of a transaction or other private legal fact, and not by virtue of registration); this paradigm only solves the problem of competition of rights, and the absence of the need for registration of a right or encumbrance for its occurrence is found in the possibility of not complying with the law on its registration — like a right from a security, in case of bad faith of the right-holder, his right will give way to a previously unregistered right or encumbrance<sup>43</sup>. On the other hand, from the fact that the principle of opposability proceeds from other grounds for the emergence of a right than its registration, it also follows that in the case of registration, a third person is not deprived of the opportunity to prove that he has a good faith belief in the absence of the fact of registration.

However, if you think of a digital contract as a set of rights protected from objections by registration, it would in any case turn into a public legal instrument.

## 9. The ability to be violated as the most important value of a subjective right

In sections 1 and 6, it was pointed out that smart contracts have a property in which their supporters see an irresistible argument in favor of their recognition by civil legislation, but which is the most vivid evidence of the absence of the phenomenon under discussion of a private law nature. The abyss separating the supporters and opponents of a smart contract along the lines of the other above listed and no less insurmountable contradictions is not as great as when it comes to violating the contract.

Digital “agreement” cannot be broken: previous activity performed in strict accordance with the “terms” (and in fact, as we have seen, expressed in computer code commands that have little in common with the private legal interests of parties); these “terms”, bypassing the civil verification, including linguistic signification, will be executed “as is” without any possibility of opposing the objections to them (especially associated with the preservation of a balance of interests). It is not easy to violate a civil contract. Without the property of being violated, it does not exist. And the reason is deeper than the one indicated by efficient breach theory — the latter only denies the universalism of real execution. Violation of a contract is an action in contradiction with its terms, which, as shown above, are the essence of the expression of the agreed interests of the parties. Breach of contract is a category consisting in dichotomous unity with the category of proper performance, i.e. actions in accordance with these interests. Depriving a contract of the property of being violated is a denial not only of the possibility of its proper execution, but also of the fact that the contract has any connection with the interests of the parties.

## 10. Digital rights as a way of fixing rights

There is another important provision in the Digital Rights Act, which was not mentioned above due to the need to focus on the subject of research: those novels that cause disagreement, and not only by the author of this work. The changes in

<sup>42</sup> Kulakovskiy V.V. Problems of State Registration of Ownership of Transformed Immovable Objects. Property Relations in the Russian Federation. No. 1 (196). Page 47–48.

<sup>43</sup> Clause 4 of the Information Letter of the Presidium of the Supreme Arbitration Court of the Russian Federation dated February 25, 2014 No. 165 “Review of judicial practice on disputes related to recognition of contracts as not concluded”; paragraph 2 clause 5 of the Decree of the Plenum of the Supreme Court of the Russian Federation dated December 25, 2018 No. 49 “On some issues of application of general provisions of the Civil Code of the Russian Federation on conclusion and interpretation of a contract”.

Article 160 of the Civil Code are hardly capable of causing anyone's disapproval. They exclude from the rules on transactions the conditions of equivalence of electronic and handwritten signatures, which, in relation to a simple electronic signature, were determined by the regime of double delegation of law-making — in the former text of Article 160 of the Civil Code and in Part 2 of Article 6 of Federal Law No. 63-FZ "On Electronic Signature". Instead, to transactions made "using electronic or other technical means", which nowadays means, minus the statistical error, "using a computer program", the legislator applied the regime of subject identity, which could be called the principle of open (or unqualified) verification<sup>44</sup>: any methods, if they allow to reliably identify the person who expressed the will, are considered suitable by default, but qualified verification can be established by law. In addition to the benefits for turnover, this innovation is an important and necessary — and, in our opinion, the only one necessary in the Civil Code — an act of digitalization of civil legislation. If we extend the rules on transactions to volitional actions for their execution, which, as a general idea, is not unanimously supported by the doctrine, but which can be forcibly done with a special indication of the law in relation to digital form, we will get a legal regime of "digital rights", which, according to many civilists, they should have and which turnover needs: they will become ways of fixing rights and legal implementation.

## 11. Conclusion

Firstly, despite the sharp criticism that Bill No. 424632-7 was subjected to, which led to a fundamentally new definition of digital law in the Law on Digital Rights in comparison with its text, the provisions of the draft defining the legal regime for the exercise of these rights, through smart contracts, entered into the current legislation. The new Article 141.1 of the Civil Code delegates the competence to determine the content and conditions for the exercise of digital rights to a computer program; similar provisions are contained in the Law on Crowd-funding and in the Law on Digital Financial Assets. Taking into account the fact that at the same time the proposed revision of the second paragraph of Article 309 did not experience the impact of criticism from the Council for the Codification and Improvement of Civil Legislation, it can be argued that "digital contracts" appeared in domestic private law, and endowed with the property of self-fulfillment immanent for them and extolled by supporters. This circumstance expands the meaning of the remarks addressed in this work to digital contracts — this is not only a statement of the author's theoretical views, but also the judgments of *de lege ferenda*. Even if the introduction of digital rights is considered an acceptable legal experiment after A.V. Gabov<sup>45</sup>, in our opinion, it is time to complete this experiment in terms of smart contracts.

Secondly, a smart contract, at least insofar as it means a computer program that is self-executing based on its code, is a digital, not a legal reality, because it does not represent an agreed expression of the interests of the parties in the terms of the contract. This conclusion is made, first, because it is impossible to verify the interests represented in self-executing code, and even more so changes in their state; further, the expression of interests in a programming language does not lend itself to proper linguistic verification. As a result, procedures for restoring contractual equilibrium cannot be applied to a smart contract, and the true will of the parties cannot be clarified.

Thirdly, the "irreversibility" of the terms of smart contracts, that is, their self-fulfillment, which implies the impossibility of their violation, is their fatal defect, since it exposes their irrelevance to the interests of the parties and, consequently, the purpose of the existence of civil law, which is a way of harmonizing equivalent interests.

Fourthly, the existence of smart contracts cannot be justified by the presence in private law of means ensuring that rights and legal implementation have the properties of relative irreversibility in cases where such irreversibility is objectively required by turnover.

Fifthly, digital rights, according to the opinion that has been repeatedly expressed earlier, are nothing more than a way of fixing rights and legal implementation, and therefore the changes made to Article 160 of the Civil Code by the Law on Digital Rights should be welcomed and considered the only novel of this Law that deserves to be preserved.

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<sup>44</sup> Previously, this regime, with slight differences, was used in the previous edition of paragraph 2 Article 434.

<sup>45</sup> V.A. Bagaev. As an Experiment, it cannot be Denied. The Codification Council Found out the Nature of Digital Rights [Electronic resource] Portal "Zakon.Ru". URL: <https://clck.ru/VmrdS> (date of access: 25.06.2021).



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