

# The Use of Artificial Intelligence Technologies in Judicature: Challenges of Legal Regulation

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## ABSTRACT

Technology prospects of artificial intelligence in justice actualize certain number of legal issues and in theory and in practice of law regulation. One of the issues is constructing the legal concept of “artificial intelligence” for the purpose of legal regulation of the artificial intelligence technology. Occurring in existing approaches attempts of determining artificial intelligence in law mostly are basing on attributing artificial intelligence with legal personality, which is strongly criticizing in this paper. Justifying inadmissibility of including a legal personality attribute in this concept for a reason of absence of any theoretical basis for a need or opportunity to attribute artificial intelligence with legal personality. Using of artificial intelligence definition, which are based on describing of technical and technological characteristics is absolutely inefficient in legal regulation, because do not effect in a proper way. Incorporation of artificial intelligence as a social phenomenon in legal demands or being self-determined or newly given (legal, not technical) determination of any existing term.

**Keywords:** *artificial intelligence, the electronification of justice, electronic justice, the legal regulation of artificial intelligence*

## 1. INTRODUCTION

One of the concepts of optimization and improving the access of justice is its electronification which can be implemented according to two vectors that determine various aspects of the legal regulation problem analysis: in terms of instruments, as the use of information technologies as the means of procedural communication for example, the Federal Program "Development of the Russian Judiciary System for 2013-2020" (approved by the Government Regulation of the Russian Federation of 02/27/2010 No. 1406) provides for a set of measures to create mobile justice, electronic justice, to implement software tools for analytical support of courts, the formation of electronic cases and an electronic archive of legal cases, etc.), and in terms of the prospects for the use of artificial intelligence (AI) in judicature. The relevance of the second problem is no longer in doubt as evidenced at the international level by the adoption of the European Ethical Charter on the use of AI in judiciary and related systems, and at the domestic level by the Decree of the President of the Russian Federation “On the Development of Artificial Intelligence in the Russian Federation” and by the adoption of the National Strategy for the Development of AI for the period until 2030 which sets the task of adapting the regulation of human interaction with AI and developing ethical standards for such interaction. Since the search for optimal models of legal regulation is unthinkable without a reflection of theoretical grounds, the appeal of legal research to AI problems is important. At the same time, there is a lack of comprehensive studies of

this issue in jurisprudence, and that is natural due to its relative novelty. (Presently, the only monographic legal study of the AI legal regulation problems in Russia is the paper of P. M. Morkhat [14]) Jurisprudence is at the stage of the statement of the AI legal regulation problems, both theoretical and applicable, including the problems of constructing the legal concept of AI and the legal personality issue [16,6].

## 2. STUDY DESIGN

The issue of the AI legal concept constructing is considered in conjunction with the issue of legal personality since it is revealed that attribution of personality as an element of the AI concept content is one of the options for designating a subject in the legal literature. Other options are a direct statement about the need to grant AI the status of a legal subject or a proposal on the legitimization of the AI subjectivity *de lege lata* without theoretical problematization of the grounds for such proposals [7,8,10,15,21,22]. The study object is public relations associated with the legal regulation of the AI use in legal practice, in particular in the judicature. The study subject is the theoretical conceptions of legal personality and the legal concepts of AI proposed in legal science. The empirical base is legal acts related to the regulation of the AI use in legal practice.

### 3. STUDY RESULTS AND DISCUSSION

According to the result of the study, it was concluded that there are no grounds for attributing a feature of subjectivity when constructing the legal concept of AI. Firstly, the question of subjectivity itself is only relevant to a relatively strong AI, the creation of which is a scientific and technical problem, the possibility of its successful resolution of this problem is currently debatable [28,29]. Secondly, reflections on the legal personality of AI cannot be conducted exclusively in an instrumental manner without theoretical justification which leads to the question of the criteria for forming the AI subjectivity, since their anthropocentrism is a common feature of various concepts of legal personality.

As applied to a person, subjectivity, as a rule, is substantiated either through a descriptive approach, i.e. the attributive properties of human consciousness (will, ability to think, ability to make independent decisions, self-awareness) or through an axiological approach.

The applicability of the first approach to AI is doubtful, since there are no grounds for an unambiguous statement about the possible presence of consciousness, even in the future creating a strong AI [28]. A. Turing's behaviorist test [30] is quite convincingly criticized in the scientific literature: AI can be argued to imitate human behavior, but this does not allow us to say about AI consciousness; AI does not think but imitates thinking operating on a syntactic rather than semantic level (J. Searle's Chinese Room Argument). On the other hand, the subject of regulation of positive law is not thinking, but behavior. In this context, the uncertainty problem regarding the possibility of AI to think in the scope of legal regulation tasks can be overcome. It does not matter whether the AI thinks or not, since the AI can operate imitating human behaviour [24]. Therefore, the AI behavior can be the object of law regulation, however, it does not mean that the legal personality of the AI shall be necessarily recognized. The subject of law does not have to be identified with the participant of legal relations and with the legal role exercised by him (about critique of the identification of a subject of law with a participant in legal relations look [1, pp.31-38]).

Professor B. Brozek, noticing the general problem of the inconsistency of the legal concept of subjectivity with ontological philosophical grounds and noting that supporters of the descriptive approach to understanding subjectivity fall into a situation of "methodological schizophrenia", made the interesting remark: on the one hand, attempts are made to form the concept descriptively, i.e. through a description of the mental properties attributed to the subject of the law (the ability to feel, understand, self-recognize). On the other hand, the result of such a descriptive definition is proposed to use normatively in order to solve ethical and legal issues. This approach creates certain problems (for example, in the legal sense, a person who does not have all the completeness of mental properties attributed to the subject of law is still the subject of law (legally incapable person), but some of the mental attributes of subjectivity can also

be observed in non-subjects of law (for example, higher primates are capable to experience psychological reactions and self-identification, etc) [23].

Another approach to thinking may be the axiological concept of the subject, within which ethical aspects come to the fore, and it is they what primarily constitute subjectivity (the subject of law as a social and legal value) (on the subject of law as a socio-legal value, see [1, pp.28-105], [2, pp.128-132]). To be a subject means to be legal-recognized as a value, an end in itself [3, pp. 84-102]. However, nowadays, the attitude to AI as a tool and service function is quite clearly traced. Thus, the European Ethical Charter on the Use of AI in Judiciary and Related Systems declares the principle of human control over AI. For any use of AI in law enforcement systems, user autonomy should be ensured and not be limited to the use of AI tools and services. It is proposed to use AI technology for making predictions of the termination of a dispute (this refers to the concept of "predictive justice" (the European Charter, Annex 3, principle 5), which are informative, recommendatory, but not imperative. A person should retain the ability to directly refer to the judicial data and decisions that the AI used to obtain the result and also be able to deviate from them taking into account the specifics of a particular case. Similar instructions can be found at the domestic level. In the National Strategy for the AI Development, its essence is defined as an information system that performs the function of assisting a person in making decisions, while the function of interpreting the AI results is retained by the person; the person should be able to question such results and cancel them. Such strategy means weak AI (The National Strategy, Clauses [6, 8, 9, 21, 22]). Thus, to speak of attributing AI subjectivity properties is premature today, which, however, does not erase the problem of forming the legal concept of AI for the purposes of legal regulation.

Probably, any legal regulation as a legal and technical tool is based on a clear definition of the boundaries of the impact of the regulatory mechanism and regulatory principles, which is achieved by formulating the elements of the legal regulation mechanism: concepts, categories, terms and definitions that are correct from the point of view of formal logic and linguistic approach. Thus, an appeal to concepts and categories in the study and interpretation of various regulatory structures seems inevitable.

What are the prerequisites to proceed when solving this problem? It seems indisputable that legal regulation is a deliberate action on behavior. In this case, it is important to understand that the concepts and categories of law, being often artificially created, by their nature and systemic connection resemble language as a way of communication and interaction in society. Almost any artificial, i.e. professional language has these properties. If the law has the need to regulate a new social phenomenon, then the concept expressing it is "processed" by jurisprudence, fits into the existing conceptual chains and categorical series and does not use the concept in its original meaning.

Considering borrowed concepts, we are talking about the new semantic filling of a certain linguistic unit. However, the process of incorporating the semantic linguistic unit into the system of the professional sphere concepts is not just giving a new meaning to the word, but also involves matching this unit with existing concepts and categories, and assumes a certain "processing" of the semantic unit meaning expressed in the definition formed by rules of legal thinking.

Speaking about the definition of AI, first of all, it is right to refer to a legal definition in Decree of the President of the Russian Federation No. 490 "On the Development of Artificial Intelligence in the Russian Federation" of 10.10.2019: AI is a complex of technological solutions that allows you to imitate cognitive human functions (including self-learning and search for solutions without a predetermined algorithm) and obtain when performing specific tasks, results comparable, at least, with the results of human intellectual activity. The complex of technological solutions includes information and communication infrastructure, software (including that using machine learning methods), operations and services for data processing and finding solutions.

In this legal definition, we consider it necessary to pay attention to the fact that this definition is scientific in its nature, attributive (mandatory) features since it lists a number of features and characteristics of artificial intelligence which are non-legal. In addition, this definition does not contain a reference to any legal concept which would make it possible to determine the position of the legislator regarding the position (within any classification or typology) of AI in the legal system. All above-mentioned leads to the conclusion that this definition does not have a legal force and is a declarative designation of the technical properties of the subject of regulation.

When discussing AI, jurists either do not determine the subject of discussion (AI), taking it for granted, or operate on definitions that are outside the boundaries of jurisprudence and its conceptual framework.

So, I.V. Ponkin and A.I. Redkina specify, "according to our authors' definition, AI is an artificial complex cybernetic computer-aided software-hardware system... with a cognitive-functional architecture and its own or relevantly available (given) computing power of the necessary capacities and speed performance" [17]. Further, the authors list a quite large number of AI properties, however, none of these properties is related to jurisprudence and describes AI from the point of view of technical characteristics.

The R.F. Zakirov thinks in a similar way. He says, "the most complete definition is that given in the early 1980s by Barr and Feigenbaum, scientists in the field of theory of computation. AI, in their opinion, is a field of computer science that is engaged in the development of intelligent computer systems, i.e. systems with the capabilities that we traditionally associate with the human mind, namely understanding the language, learning, the ability to reason, solve problems" [11].

These approaches is similar to that of Yu.S. Kharitonova [20] and V.A Laptev [13].

One of the broadest and replete with attributive elements definitions is given by P.M. Morhat in his thesis research, according to him, "AI is a fully or partially autonomous self-organizing computer-aided hardware-software virtual or cyber-physical as well as bio-cybernetic system (unit) that is not biologically living with the appropriate software, endowed with software-synthesized (emulated) abilities and capabilities" [14].

In our opinion, a common problem of all of the above definitions that were proposed by the authors is that these definitions are non-judicial (technical), i.e. formulated not within the framework of the legal paradigm, but in the rules, concepts, and categories of technical specialists of this subject.

For this reason, these definitions do not bring clarity to the understanding of the nature and essence of AI in the context of the science of law. It was similar to use the definition of electrical energy that physicists offer, and not to consider this phenomenon as a product, in accordance with Art. 3 of Federal Law "On the Electric Power Industry".

In the above definitions, there is no relation between the described phenomenon and the law, therefore, this definition is indifferent for the law and cannot serve as the basis for any subsequent conclusions or analysis.

Other researchers are trying to simulate the legal construction of AI, the so-called "electronic face" [19], or to identify other issues of including AI into the law [18].

In our opinion, all of the above approaches and researches should be primarily based on a developed and meaningful concept of AI in terms of law.

As A.M. Vasiliev rightly noted, "legal categories create the uniqueness and qualitative certainty of scientific legal thinking and legal ideology as a whole. The meaning of studying them is to establish how and to what extent the existing set and structural connections of legal categories adequately express the properties, connections and essence of phenomena and legal reality relations, natural and necessary, found in law" [5].

The methodological importance of the categorical law framework determinacy is recognized in fundamental works on the theory of law, so J.-L. Bergelle wrote that "the system of legal categories allows you to eliminate the disorder and uncertainty of the public life facts because they are much easier to comprehend with a systematic approach that requires clear qualification criteria" [4].

The realization that it is necessary to give a clear definition of something before regulating this is also found in foreign literature, so M. Scherer writes that "Any regulation of artificial intelligence should clearly define what it regulates, in other words, define the artificial intelligence"[26].

A significant amount of papers discuss AI not only as a phenomenon subjected to legal regulation but also as thinking and intelligence as a whole [25].

As a part of the descriptive approach, the question stated by a group of scientists from the University of Queensland is valid, "Before defining the concept of AI, it is necessary

to determine what thinking is as a whole” [27], whether thinking should be considered as a property of human consciousness, or it can be inherent in AI as well. Within the axiological approach, the question can be stated as follows: whether it is reasonable and necessary to treat AI

#### 4. CONCLUSIONS

1. To this date, there is no theoretical basis for the potential and/or the need to endow AI with legal personality;
2. Legal personality cannot and should not be an element of the content of the legal concept of AI;
3. The main problem of descriptive or axiological approaches to determining the content of the concept of AI for the purposes of legal regulation is overcoming anthropocentrism in law, the need for this is doubtful;
4. The use of definitions of AI based on the description of technical and technological characteristics in jurisprudence is useless, since it does not have any effect on legal regulation;
5. The incorporation of AI as a sociocultural phenomenon into legal reality requires either an independent term for its definition in the plane of law, or filling the concept with legal content;
6. The development of a conceptual and categorical framework according to the rules and taking into account the legal science is a necessary condition for effective and correct legal regulation of any sphere. From the point of view of the legal science, the use of the categories and definitions of other branches and spheres without their adaptation and rethinking cannot be recognized as correct.

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