

The Main Aspects of the Russian Judicial System's Digitalization in Close Collaboration with the International Experience in the Justice Intellectualization

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ABSTRACT

In Russia along with the task of ensuring universal access to new generation technologies the problem of introduction's intensifying and use of the technologies is also considered urgent. The development of the artificial intelligence systems in various spheres of society is different. The judicial system is less centralized and being rapidly modernized, and with regard to this sphere the artificial intelligence should be understood as the elements that operate autonomously within a single automated system of data storage and processing, allowing the machine mind to perform human functions at a more advanced – electronic-technical – level. The rational and harmonious interaction of a human intelligence with the machine intelligence should be not only a key basis for the modernization of the modern relations, but also a determinant for the transfer of our civilization to a completely new digital level. This article is devoted to the study of legal, technical and factual possibilities of introducing artificial intelligence's elements into the Russian judicial system.

Keywords: *artificial intelligence, digitalization of the judicial system, new generation technologies, e-justice, e-court, virtual judicial assistant*

1. INTRODUCTION

According to the presidential edict № 203 "On the Strategy of development of the information society in the Russian Federation for 2017 - 2030" technologies created on the basis of advanced knowledge are now becoming more accessible. At the same time one of the main directions of their development is the elaboration and implementation of the anthropomorphic "intelligence" – the most promising and widely used in various spheres of society technologies of "machine intelligence" – the artificial intelligence.

Following the meeting of the Supervisory Board of the Autonomous non-profit organization "Agency for strategic initiatives to promote new projects", held in 2019, the President of the Russian Federation approved a list of instructions, according to one of which the Government of the Russian Federation was instructed to develop approaches to the national strategy for the development of the artificial intelligence. It should be noted that such strategies for a long time by the standards of the speed of the IT sector's development on a global scale have taken their positions among the leading engines of the

technological progress in a number of countries such as the US, China and the UK. At the same time the above-mentioned strategies determine the sphere of jurisprudence as one of the most priority directions in different variations – the judicial system in the US, the judicial services sector in China and improving the efficiency and promptness of the legal services in the UK. Therefore, while there is a real flourishing of new generation technologies abroad, in Russia the attractor of anthropomorphic intelligence and law is the question of objective possibilities and relevance of the artificial intelligence's introduction into the various spheres of life of society and the state, in particular, into the field of the realization of the judicial system's potential and into the relations developing within it.

At the moment the topic of the legal system's digitalization is the most relevant. Over the past few years hundreds of scientific papers have been devoted to the issues of the electronic justice. A special place is occupied by the thesis for the degree of candidate of legal sciences Vasilkova S.V. "Electronic justice in the civil process". Meanwhile, to date, the full potential of the artificial intelligence in the Russian judicial system has not been comprehensively investigated. Some ideas can be found in

the dissertation for the degree of doctor of Law Morhat P.V. "Legal personality of artificial intelligence in the field of intellectual property law: civil law problems". However, the modern legal regulation of new generation technologies use in the field of the judicial power is still at an early stage. This allows expanding the range of possible prospects for the introduction of the artificial intelligence into the judicial system and creating an appropriate basis for doctrinal and legislative initiatives.

2. THEORETICAL BASES. METHODS

The object of this research is the artificial intelligence as one of the most controversial technologies that has the right to life in the judiciary.

The basic (philosophical), special and general scientific methods were chosen to reveal the theme of the research. The dialectical method contributed to the definition of a general strategy for finding information on the topic of research, structuring and systematization of data. Special statistical method has become a conceptual basis for processing and analysis of a large amount of data determining the place of the artificial intelligence in certain segments of the field of new generation technologies` application. The analytical and comparative research methods allowed analyzing the concept of the artificial intelligence, to identify its features and to compare approaches to the possibilities of its implementation in the mechanism of judicial power in Russia.

3. THE RESULTS OF STUDY

Currently the artificial intelligence has the right to life in the judiciary as a personal judicial assistant. The relevant platforms for introducing the test regime can be such segments of the Russian justice system as notifying participants in the process, automated distribution of cases between judges and an analogue of simplified procedure online.

4. DISCUSSION

4.1. The definition of the term “artificial intelligence” and its semantic meaning in the judicial system

For the first time a term "artificial intelligence" was introduced into the doctrinal and lexical turnover by John McCarthy at the first scientific conference devoted to the intellectualization of electronic computing in 1956 [1]. However, the question of the machines` ability to "think" arose in the first half of the XX century.

Vannevar Bush [2] described a machine that could be endowed with the ability to think and recognize, while launching processes similar to human thought processes and the principle of human memory. Five years later Alan Turing wrote a scientific article, in which he offered to

check if the machine could win a game, for example, game of chess [3]. At the heart of the Turing test is a simple pragmatic approach that allows proving that a computer, being indistinguishable from a person in the game, can develop its own strategy, make winning moves, thereby thinking logically and straight.

Raymond Kurzweil [4] offers the concept of the artificial intelligence`s understanding through the prism of human intelligence. Using Robert Young's point of view according to which the human intelligence is an ability of the mind to perceive order in a situation previously thought to be chaotic [5], Kurzweil defines the artificial intelligence as a system endowed with broad functionality, which includes the capabilities of expert systems, automated learning, understanding of natural language, robotics and other functions that allow use limited resources optimally, including time, to achieve a number of tasks.

Patrick Henry Winston [6] defines the artificial intelligence as a computing machine capable of perceiving, reasoning and acting. According to Alex Endryu [7], the artificial intelligence is a machine that operates with the capabilities of intellectual behavior. John Haugeland [8] calls it an attempt to make computers think – a machine with a mind "in the full and literal sense of the word". Charniak E. and McDermott D. [9] reveal the concept of the artificial intelligence through a computational model, which is an analogue of human mental abilities.

Ponkin I. V. and Redkina A. I. [10] defined the artificial intelligence as "an artificial complex cybernetic computer-software-hardware system with a cognitive-functional architecture and its own or relevant available computing power".

Morkhat P. M. noted the shortcomings of the definition proposed by Ponkin I. V. and Redkina A. I. and brought out his own – the author's – concept, according to which he defined the artificial intelligence as a "fully or partially autonomous self-organizing (and self-organizing) computer hardware and software virtual or cyber physical system (unit), not alive in the biological sense of the concept, with appropriate mathematical software, endowed/possessing software-synthesized (emulated) abilities and capabilities", thereby pointed to the possibility of the artificial intelligence to act autonomously and regardless of a person [11].

With regard to the modernization of the judicial system through the introduction of the new generation technologies, the above definitions seem to us too cybernized. As Vasilkova S.V. notes in her dissertation, e-justice in Russia is at the very beginning of its development. The transformation of the judiciary`s mechanism is faced with many problems, often of a philosophical nature [12].

Pablo Bravo Hurtado in his article "Automation of the justice`s administration: the appeal to three erroneous judgments about artificial intelligence" made an attempt to demonstrate that the skeptical attitude to the idea of the automation of our justice is reduced to three erroneous constrictions about the true task of the artificial intelligence`s introduction, the level of its development

and the moral component of its application. Insisting that currently the artificial intelligence belongs to the plane of ethics rather than technology, Pablo Bravo Hurtado pointed to the true problem of its introduction into the judicial system. In his opinion, the key question is not whether the artificial intelligence has consciousness, but the understanding that if we replace a human judge, then people will no longer be judged equal to themselves [13]. It is difficult to disagree with the above, because today the artificial intelligence is perceived in its original meaning as a machine that can think rationally and act as an analogue of homo sapience.

In our opinion, the artificial intelligence in the judicial system is not a unit (a single system – the carrier of the "machine mind"), but separate independent elements of the automated system of data storage and processing, each of which allows electronic computer technology to perform certain human functions at a more advanced – at the electronic-technical level.

Therefore, speaking about the artificial intelligence in relation to the Russian judicial system, we attach semantic importance to it, which is reduced not to robotics, but to individual capabilities of new generation technologies. In our opinion, this approach seems to be the most relevant, because it takes into account the initial level of the technological progress in the projection of the judicial system's digitization and reflects the needs of the justice system's modernization, where the artificial intelligence acts not as an analogue of the judge, but as his cloud personal assistant.

4.2. Determinism of the human and machine intelligence

Since the appearance of the most primitive voice assistants SIRI from Apple and ending with the capabilities of unmanned vehicles, the artificial intelligence penetrates all spheres of a social reality. As statistics show, the leading areas of machine intelligence's use in Russia at the end of May 2019 were such areas as research and development, customer service, predictive analytics (the survey was conducted among customers and suppliers of artificial intelligence technologies by the portal TAdviser). The new generation technologies are the least popular in solving legal problems.

Nevertheless, a legal sector is not at the stage of the digital stagnation. Many companies and organizations, and more importantly – the courts, are gradually being transformed through digitization. Across Russia the judicial authorities are moving from traditional (paper) management to electronic – the so-called "one electronic window" [14]. The video conferencing technology allows the judges, parties and witnesses to participate in the trial virtually. An electronic court notice reduces the time for notification of the participants in the process. The diversification of the proof's means simplifies the evidentiary process, bringing the justice system to a new better level.

Despite some digital innovations in the judicial system of Russia, the transition to progressive and innovative legal

proceedings using elements of the artificial intelligence remains doubtful.

Areas of using the artificial intelligence in Russian companies, %

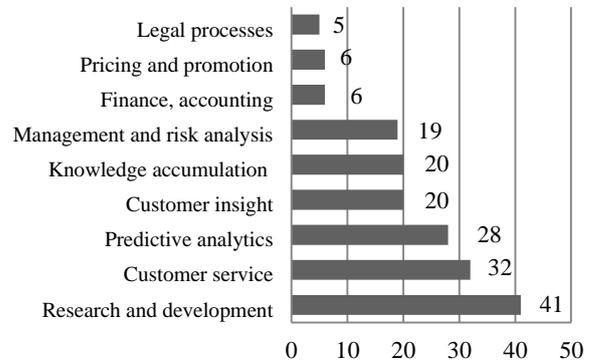


Figure 1 Areas of using the artificial intelligence in Russian companies, %

Meanwhile, in 2013 IBM Watson – an artificial intelligence system of the American company IBM – helped to diagnose and prescribe treatment for leukemia in a patient whose case led doctors to confusion for several months. The supercomputer studied the patient's medical information and after ten minutes it was able to compare his condition with twenty million cancer records. It should be noted that the artificial intelligence has not replaced doctors, but only helped them in saving lives. Similarly, we cannot talk about replacing judges with the "thinking machines". With the use of individual elements of the artificial intelligence, judges will still control the final decision on any case, but the combination of their legal thinking and the computer's ability to process and analyze information can facilitate the decision-making process, making it more accurate and operational. In this case, only the question how to introduce these elements into the judicial system in the most harmonious and relevant way will remain relevant, and the answer will belong to the plane of technical innovations and the practice of their implementation and use in Russia and abroad.

Firstly, the artificial intelligence can be useful as a tool for collecting and analyzing information. For example, created on the IBM WARSON basis the analytical platform ROSS is actively gaining popularity in the United States. ROSS is the world's first "lawyer" with the artificial intelligence who, upon receiving a request, automatically searches all possible databases, including the current legislation, judicial practice and thematic material, analyzes the results and generates a clear and reasonable answer, supporting its conclusions with links to the primary sources. This system could be an ideal assistant not only for law firms looking for the easiest ways to solve their legal issues, but also for the judges in making decisions, because ROSS is not a static reference and legal system, but constantly developing and predisposed to memorization and training,

systematization and analysis of information artificial intelligence.

Secondly, the artificial intelligence can become a powerful ally in the electronic document search, carried out in the mode of electronic detection (e-discovery), which uses computer algorithms to identify and label documents based on keywords and other metadata. As the elements of the artificial intelligence are increasingly integrated into our daily lives, electronic detection tools (technology-assisted review –TAR) are being introduced into the standard practice of the electronic discovery. Five years ago, TAR was not even heard of in the courts, but today they are considered one of the most important search tools.

The first example of the court practice supporting the use of TAR in reviewing documents was the decision of the Federal Magistrate Judge of the US for the southern district of New York, Andrew Peck, in the case *Da Silva Moore v. Publicis Groupe*, in which a judge determined that TAR is the best and most effective means of finding and reviewing the legal documents. The Department of economic affairs of the High Court of Justice endorsed this approach and adopted an amendment requiring parties to use "the most effective means" available for reviewing documents, including TAR and predictive coding. The amendment entered into force on October 1, 2018 [15].

Thirdly, the artificial intelligence is the basis of the virtual assistants` principle, which can be used not only as a software client, with which the owners of modern devices cope with everyday affairs quickly, but also as a personal assistant in solving the legal issues. The virtual assistant is able to take into account, plan and perform tasks in multi-functional mode. Apple's Siri and Microsoft's Cortana may be essential assistants of the modern judges. For example, they can be instructed to notify the trial participants of the date and time of the hearing, which can be organized as follows.

The electronic filing system on the website of the State Automated System of the Russian Federation "Pravosudie" receives an appeal. For example, a claim is automatically sent to the judge by automatically distributing cases between the judges, and determined by a system a virtual judicial assistant receives a signal. After analyzing the information that was received the electronic assistant informs the judge about the possible date and time of the preliminary hearing`s appointment. If the judge makes a decision on the acceptance of the statement of claim for production and selects the date and time of appointment of the preliminary meeting, which were proposed by the assistant, the virtual assistant notifies the participants in the process in the way that was chosen by the applicant. If the judge makes a determination of the different nature, the virtual assistant automatically sends a scan of the determination to the applicant. In this case, the fundamental changes in the legal acts will not be required. This issue can be resolved at the level of a simple regulation, since the use of the virtual assistants does not create a new method of notification, but only automates its use.

The replacement of the judge with the "unit of the artificial intelligence" is one of the most controversial issues.

Currently, it is advisable to talk not about the prospects of the people-judge`s replacement with the artificial intelligence units, and their involvement as an assistant to the people-judges [16]. Giovanni Sartor and Luther Brunting are sure that the danger of replacing the judicial discretion with a rigid computer model is difficult to overestimate, since the adoption of judicial decisions is not only complex, but also socially significant [17].

In foreign practice, the use of the artificial intelligence`s elements does not seem such a distant and ambiguous task. The forums where most civil disputes in the world are resolved are the platforms such as Alibaba and eBay, not the state courts or private mediators [18]. In the US the LexMachine platform allows to predict the outcome of the trial through automatic selection and analysis of the information posted on the Internet. In the UK the Money Claim Online system has been operating for about 10 years. It is a configuration of the electronic writ proceedings [19]. In this regard, the question arises whether it is possible to adopt a fairly successful experience of the foreign countries, without destroying the information and the legal basis of the Russian judicial system, gradually moving to the digital rails, using advanced technologies not as an analogue of a judge, but as a means of increasing its potential. It is important not to allow the computerization of processes, which due to their characteristics can be performed only by a person. It is necessary to create a sound legal basis for the Informatization of society [20]. Developing this idea, it is possible to introduce elements of the artificial intelligence into the judicial system of Russia in a test mode for certain categories of cases. For example, in cases dealt with in summary and writ proceedings. Thus, a plaintiff (claimant) will initiate the process by filling out an online form, which is an analogue of the application in an electronic form. Depending on the category of dispute, the system will require the completion of the relevant sections such as "circumstances relevant to the proper handling of the case" and "documents necessary to attach to the application" (evidence). Then the plaintiff will need to provide a mobile phone number or e-mail of a defendant (debtor) for the system to send him a sms-notification (or e-mail) about the initiation of the electronic litigation, after which the defendant will be able to agree or refuse the process in the electronic form. At the same time, a draft judicial act will be sent to both parties. If the defendant refuses, the plaintiff will be notified of the case`s transfer from electronic form to traditional proceedings. If the defendant agrees, or the time expires to receive a refusal from him, the draft judicial act will become a court decision and will be automatically posted on the website of the court. The improper notification of the defendant (a failure to receive notification, the error in the information provided to the claimants) on his application submitted in the electronic form, will lead to the transfer of the case to the traditional proceedings, which ultimately will retain the advantage of the human-judge over the new generation`s technology, since the last instance in solving the issue will be the human mind, not its digital counterpart.

The summary and writ proceedings are the modifications of the civil procedural form, where the automation can bring the greatest benefit. The simple cases with duplicate the actual script is a good springboard for the cybernetic experiments.

For example, a former spouse is required to collect a child support for two minor children. In order to do it she would need to identify a court competent to hear her case, file an application and attach all the necessary documents. Then, she will receive a judicial order (within five days), which will have to be submitted for the execution. At the same time she can apply to the e-court, fill out the appropriate form and receive a judicial order in five minutes, since the artificial intelligence will process the information much faster, form the judicial order and turn it to execution automatically. The result will be an immediate recovery of funds, in particular, from the bank account of the former spouse, saving of time, physical and spiritual strength, as well as material and actual resources of the court.

In China robots can analyze and extract the data necessary for considering a case from all possible sources at the legislative level, thereby they reduce the burden on the state apparatus and the judiciary. Some of the robots have their own specialization. They are specialists in fields such as commercial law or labor disputes. Moreover, Chinese courts use the artificial intelligence to analyze the personal messages and comments on the social networks, which can be used as competent evidence in the courts. And the Chinese traffic police are known to use face recognition technology to identify and convict criminals.

The ethics and morality are certainly important when we consider the introduction of the artificial intelligence into the judicial system [21]. However, these two concepts are in the plane of subjective judgment, while the artificial intelligence can and should help judges in the lower courts. In this case, the human judge will remain the final arbiter at the top of any judicial system.

In the twenty-first century the lawyers have been tasked with solving a variety of digital problems, and there is an extremely complex issue: What does it mean to be a lawyer in the era of the artificial intelligence? In our opinion, a lawyer in the modern world is not the one who creates and uses a precedent, but the one who entrusts this matter to the computer, while maintaining the dominant role and leading positions of the Manager.

5. CONCLUSION

Over the past twenty years the applications have moved from the simple text editors to automated data storage and processing systems. Every year the society moves away from the primitive applications for typing and formatting text, focusing their interests on the use of more advanced autonomous software systems based on the artificial intelligence. Today a virtual agent executing instructions to solve the specific legal problems is no longer an innovation, but a real and integral element of the office support.

At the same time there is no question of a complete replacement of a human mind with an artificial one in the aspect of the application of new generation technologies in the judicial system of Russia. Currently the artificial intelligence is faced with the task not to replace a judge, but to become his right hand – a personal assistant capable of increasing his potential, to automate the decision-making system and to exclude from the activities of every judge the routine factors. In this regard, it seems illogical and meaningless to reduce the issue of the judicial system's computerization to the problem of determining the role of an electronic judge at the regulatory level, since the solution of this issue belongs to a different plane – to the moral and ethical side of the public relations' cybernization.

Accordingly, the only relevant issue at the moment should be considered the introduction of the artificial intelligence's elements into the judicial system, which is solved, firstly, by attracting the virtual assistants and, secondly, the use of the technical tools of the information analytics by the machine intelligence. But these processes should be gradually, at the level of adoption of the regulations of the judiciary and the implementation of the practical experience gained in the implementation of the judiciary, while the integration of the information law's theory and technical capacity is being.

At the same time, in the context of the legal relations' digitalization, it seems absurd to completely abandon the concept of the e-judge. In our opinion, the solution of this conflict can only be the search for new approaches to the introduction of the artificial intelligence into the judicial system. One of these is the project of the e-court, in which the leading role with the functionality of total control will remain in the hands of a human judge. The participants of the process will be offered an alternative to traditional production, and the judicial system will get the possibility of digital modernization in order to bring its modifications of the civil procedure form in accordance with the requirements of new generation technologies.

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