DOI: https://doi.org/10.17816/RJLS109325

Research Article

Digital Prosecutor's Assistant or Digital Prosecutor?

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ABSTRACT

This research examines some aspects of the digitalization of law enforcement. The author selectively analyzes the relevant regulatory framework and several domestic and foreign examples of the use of artificial intelligence in the activities of law enforcement agencies and the prosecutor's office. He notes the problems of introducing artificial intelligence into the work of law enforcement officers and identifies the most promising areas of activity, primarily in analytical aspects, for the use of digital assistants by prosecutors. Based on the results of the study, the author concludes that the proliferation of digital assistant programs that eliminate routine work and increase the effectiveness of supervision is inevitable, and he also predicts the emergence of digital prosecutors in the foreseeable future.

Keywords: digital; artificial intelligence; assistant; prosecutor; neural network; ethics; management; analytics.

To cite this article:
Khatov EB. Digital prosecutor's assistant or digital prosecutor? *Russian journal of legal studies.* 2023;10(1):87–92. DOI: https://doi.org/10.17816/RJLS109325

Received: 14.07.2022 **Accepted:** 13.02.2023 **Published:** 31.03.2023

УДК 347.963

DOI: https://doi.org/10.17816/RJLS109325

Научная статья

Цифровой помощник или цифровой прокурор?

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Аннотация

Публикация посвящена некоторым аспектам цифровизации правоохранительной деятельности. Выборочно проанализирована соответствующая нормативная база, а также ряд отечественных и зарубежных примеров использования элементов искусственного интеллекта в работе правоохранительных органов и прокуроров. Отмечены проблемы внедрения искусственного интеллекта в правоохранительной деятельности. Обозначены наиболее перспективные сферы деятельности для применения цифровых помощников прокурора, в первую очередь информационно-аналитическая. По результатам проведенного исследования автор приходит к выводу о неизбежном распространении программ — цифровых помощников, избавляющих от рутинной работы и повышающих эффективность надзора, а также прогнозирует появление цифровых прокуроров в обозримой перспективе.

Ключевые слова: цифровой; искусственный интеллект; помощник; прокурор; нейросеть; этика; управление; аналитика.

Как цитировать:
Хатов Э.Б. Цифровой помощник или цифровой прокурор? // Российский журнал правовых исследований. 2023. Т. 10. № 1. С. 87–92. DOI: https://doi.org/10.17816/RJLS109325

Рукопись получена: 14.07.2022 **Рукопись одобрена:** 13.02.2023 **Опубликована:** 31.03.2023

Reacting to the multidimensional impact of scientific and technological progress, the rather conservative and understandably inertial state mechanism represented by the system of public authorities of the Russian Federation, nevertheless already quite actively uses various information technologies, including the most advanced ones related to the use of artificial intelligence. Also, the need for the development and wide application of artificial intelligence is enshrined normatively, including the relevant Decree of the President of the Russian Federation from 10.10.2019 № 490[1]. This normative act aims to achieve the objectives of the federal project "Digital Public Administration" of the national project "National Program Digital Economy of the Russian Federation"[2], which includes the priorities to ensure accelerated implementation of digital technologies in various areas of the state mechanism, including the final transition to convenient electronic and extra-territorial interaction of citizens and organizations with the state. In particular, feedback mechanisms for citizens and organizations will be more convenient and technological, and legally significant document turnover will be predominantly electronic.

Particular attention is paid to the standardization and intelligent semantic analysis of text in rulemaking, control and supervisory activities, statistical reporting, court proceedings, and proceedings in cases of administrative offenses (the concept of the development of machine-readable law technologies)[3].

Various new digital services have been created and are appearing in the legal sphere as well (LegalTech, i.e., the optimization and simplification of legal activity through digitalization). In particular, to ensure efficient work with draft documents, work is underway to create a designer of draft regulatory legal acts, which, using standard templates, will make it possible to fully digitalize document flow.

Indeed, with the digital transformation of society, the global increase in the volume of information and the attendant legal and organizational problems, the activities of government agencies are optimized, and their interaction to counter offenses and crimes takes on new forms, due, among other things, to the development of the information function of the state [1, p. 38].

Intelligent information systems and digital "assistants" not only relieve lawyers of routine technical work but also address the quality and efficiency of public authorities by reducing the burden on their staff and by introducing remote services and legal assistance to those who apply for them. The presumed impartiality of artificial intelligence and the cumulative effect of its implementation imply not only a reduction in legal errors but also a pronounced compliance effect.

The activities of law enforcement agencies have not been spared from these processes. Thus, the term "digital police" has been introduced in Russia; in particular, scientific events have already been held at the Academy of Management of the Russian Ministry of Internal Affairs; for example, last year an interdepartmental scientific and practical conference "Artificial Intelligence in the Service of the Police" was held[4]. As part of the upcoming digitalization of the investigative activities of the Investigative Committee of the Russian Federation, the implementation of artificial intelligence will not go unnoticed either.

Modern technology provides new opportunities for prosecutors, whose multi-functional activity, carried out under conditions of continuous growth in workload, requires the enhancement of methods and techniques for improving its development strategy [2, p. 55]. The introduction of digital technologies, including those based on the use of artificial intelligence, "big data" entails significant changes, primarily in the information-analytical sphere of prosecutorial activity [3, p. 38].

To date, some examples of the introduction of various software systems are, to some extent, prototypes of electronic assistants for prosecutors. For example, in Kazan since 2015, a rather primitive, but quite practical terminal was used, which helps citizens to send their appeals to the prosecutor's office[5].

The use of elements of artificial intelligence is envisaged by the concept of digital transformation of prosecution services, for example, in the programs being developed to prepare pre-draft responses to citizens' appeals and acts of response, a promising corporate messenger.

In particular, the need to create a prosecutor's messenger arises because the existing secure analogs — Telegram, WhatsApp, Signal, etc. — were created abroad and do not meet Russian information security requirements. Incidentally, foreign law enforcement agencies are also replacing these publicly available programs with professional ones. For example, the popular program Mobile TraQ (a police mobile app) developed by the company QUETEL (USA) turns a smartphone into a single device for convenient paperless documentation of audio and video information for various procedural actions. For example, it downloads recordings of explanations and the recording of eyewitness contact information, which are immediately included in reports and become available for online viewing by other interested law

[1] Presidential Decree of 10.10.2019 № 490 "On the development of artificial intelligence in the Russian Federation."

[2] The national goals are defined by clause 1 Decree of the President of the Russian Federation of May 7, 2018 № 204 "On the national goals and strategic objectives of the development of the Russian Federation for the period up to 2024."

[3] Approved by the Government Commission on Digital Development, the use of information technology to improve the quality of life and business environment, Minutes № 31 of 15.09.2021.

[4] Official site of the Academy of Management of the Ministry of Internal Affairs of Russia. URL: https://xn--80a.xn--b1aew.xn--p1ai/Universitet/Novosti/item/24412070 (date of access: 19.06.2022).

[5] Electronic assistant to the prosecutor. URL: https://www.youtube.com/watch?v=_r0L4daociM (date of access: 10.04.2022).

DOI: https://doi.org/10.17816/109325

enforcement officers, including prosecutors. The fast and easy processing of digital files allows for the quick transfer of notes to procedural document forms, editing them and automatically correcting transcription errors, with a record of each processing step or file improvement, thereby providing a single "portal" where all specified documents can be viewed by operational, investigative, and prosecutorial staff in one place, facilitating search and secure file sharing in a matter of minutes[6].

The activities of domestic prosecutors are also developing quite actively in this direction. For example, for several years now, the Volga Transport Prosecutor's Office has been using computer programs that automatically search the array of information on the materials of pre-trial investigations and criminal cases to find data on violations of procedural deadlines.

At the same time, the normative concept of artificial intelligence as a set of technological solutions implies the use of more advanced software processes that allow the imitation of human cognitive functions (including self-learning and search for solutions without a predetermined algorithm) and obtain results when performing specific tasks, comparable at least to the results of human intellectual activity. Artificial intelligence includes the information and communication infrastructure, software (including that which uses machine learning methods), and processes and services for data processing and finding solutions.

In this regard, it seems that among the promising areas of digitalization of the prosecutor's office could be the introduction of programs using neural networks such as Yandex Alice, Yandex Abstracts, Google Assistant, or OpenAI GPT-2 by Elon Musk. These may be better and adapted to the needs of the prosecutor to implement all the above functions, which we hope will be able to analyze, in real time, vast amounts of statistical, operational, and other information, formulating appropriate conclusions and proposals. It should be noted that the SberBank platform already hosts the program ruGPT-3, considered to be the largest neural network for the Russian language, which is capable of continuing almost any text[7].

At the same time, reference to foreign experience allows us to conclude that the prospects for the use of artificial intelligence in the activities of prosecutors are partly becoming concrete and even quite realistic. In China, the AI Prosecutor ("AI Prosecutor" or "digital prosecutor") is already being tested based on artificial intelligence, which, from an extensive database of almost 2000 criminal cases, can formulate the charges in simple criminal cases using semantic analysis of the text describing the circumstances of the offense and information presented verbally, with more than 97% accuracy, and "AI Prosecutor" is loaded on an ordinary computer. The pilot implementation of the program in one of the largest prosecutors' offices in China's Pudong District (Shanghai) was evaluated positively[8].

Focusing on these promising developments, we can conclude that the idea we expressed earlier [4, p. 41–44] of creating domestic departmental analytical programs that can be controlled by voice commands (for example, such a program can be called a "Digital assistant prosecutor")[9], seems not only very relevant but already just necessary to reduce a certain lag in this area (we hope that such a digital assistant will eventually be able to analyze in real time).

Given the impressive development of computer technology and advances in the field of artificial intelligence, the prospect of this direction of information-analytical support for prosecution is so significant and real that it is quite possible to predict in the future publications of our followers sympathetic phrases about the difficulties of prosecutors in the formation of the information stage of post-industrial society.

It would be overly optimistic to rely solely on digital technology and to dream that robots or electronic assistants will soon do all the work of prosecutors, including crime analysis. It seems that the work of a prosecutor, in particular concerning the proper analysis of crime, will continue to require their own professional experience and practical skills in analytical work.

In addition, the mass application of highly intelligent software assistants in the work of the prosecutor may require much more time than is anticipated. Thus, according to one of the publications in the Russian Journal of Criminology, in the USA in 2013–2016, there was an experience of implementation of the interdepartmental pilot program "Artificial Intelligence in Criminal Investigation and Criminal Investigation", which aimed to relieve police officers of the routine work associated with completing voluminous documentation on the case. Instead, the police officers dictated all the necessary details to the electronic assistant, after which the program itself formed the standard reports and created databases. However, due to unsatisfactory results (the Watson program failed to assess the quality of reports, and the elimination of interactivity in the preparation of reports led to a significant deterioration in their quality), the program was closed [5, p. 759].

With this in mind, despite the optimistic prospects of artificial intelligence being applied in various fields, it seems premature to declare it fully fledged and ready to replace lawyers. In this regard, concerning prosecutors, it is worth

[6] QueTel website. URL: https://www.quetel.com/products/police-mobile-app (access date: 01.07.2022).

[7] SberPress website. URL: https://press.sber.ru/publications/sber-obuchil-neiroset-rugpt-3-pisat-kod (accessed 01.07.2022).

[8] Stephen Chen. Chinese scientists develop an AI 'prosecutor' that can press its own charges/The South China Morning Post. URL: https://www.scmp.com/news/china/science/article/3160997/chinese-scientists-develop-ai-prosecutor-can-press-its-own (accessed 27.04.2022).

[9] Doctor of Law T.A. Ashurbekov also spoke about the need to develop the program "Electronic Assistant Prosecutor", speaking at the University of the Prosecutor's Office of the Russian Federation at a seminar on the exchange of experience.

mentioning an almost forgotten attempt in the 1970s–1980s to develop a so-called automated management system "ASU–Prokuratura", which set the task of no less than producing ready-made management decisions [6, p. 15].

Today, we can agree that artificial intelligence can compose a blanket lawsuit and propose the concept of law on request, but the work is still initiated by a human, and there is no foreseeable alternative to this[10]. Projecting this current position onto the prosecutorial sphere, we also believe that the emergence of fully digital prosecutors, capable of making legally significant decisions independently in the form of acts of response, can hardly be expected soon.

Nevertheless, taking into account the examples of rapid improvement in artificial intelligence technologies, the most in-demand are prompt development and implementation of self-training analytical programs — virtual assistants of prosecutors, acting on the principle of deep learning neural networks, which, based on the violations identified by software methods in criminal cases and inspection materials, as well as analytical comparison of big data (operational and statistical) and legislative requirements, can provide ready-made variations Naturally, legalization of such documents should take place only by the decision of the relevant officials.

At the same time, it is crucial to integrate the approaches defined by the European Ethical Charter on the Use of Artificial Intelligence in Judicial Systems and their Environments (hereinafter the Charter), adopted at the 31st plenary meeting of the European Commission for the Efficiency of Justice (CEPEJ) of the Council of Europe (Strasbourg, 3–4 December 2018)[11] when developing the machine algorithms of the virtual assistant prosecutor.

In the more distant perspective of information-analytical activities, so far, we see the probable introduction of experimental neuro-technologies related to the direct connection of prosecutors to databases and computers, bypassing external devices, into the work of prosecutors. The professional, analytical, and predictive capabilities of such digital cyborg prosecutors, who are supposed to be able to monitor and take into account even the smallest fluctuations of crime and the state of the law in online mode, are likely to be astronomical.

Our future assumptions are by no means groundless but are based on real results of active scientific research in the field of bioinformatics. Thus, not for the first year, works in the field of medical application of devices of the "brain – computer interface" type transmitting information signals (projects of the BRAIN Initiative (USA), The Human Brain Project (Switzerland), the Laboratory of Neurophysiology and Neurocomputer Interfaces in the Biological Faculty of Lomonosov Moscow State University, and startups in Skolkovo (Russia)[12]) are underway. In addition, several researchers are already confidently predicting the probability of using these neuro-biotechnologies in the military and even criminal spheres [7, p. 208][13].

Given the above, we can draw a fairly confident conclusion about the need for the rapid introduction of artificial intelligence, in particular in the form of the development of the program "Digital assistant prosecutor", a supporting role, but an extremely important one which in the supervisory and other areas, including information and analytical aspects, will not only raise the efficiency of multidisciplinary work of overloaded prosecutors to a new level but also prepare the ground for the emergence of a new generation of fully digital prosecutors with round the clock multimodal access to information resources of law enforcement and other agencies.

[10] Д. Litvinov. Will we live by the laws written by artificial intelligence? Parlamentskaya Gazeta. 2021. October 5. URL: https://www.pnp.ru/politics/budem-li-zhit-po-zakonam-kotorye-napishet-iskusstvennyy-intellekt.html (access date: 01.07.2022).

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[12] Informational and news portal "News of Lomonosov Moscow State University." URL: http://www.msunews.ru/news/2970/ (date of access: 25.06.2022).

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