Modeling approaches to AI integration into public relations in Russia as per comparative research of foreign countries’ experience

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Abstract. Artificial intelligence (AI) technologies are one of the most significant solutions that can fundamentally change both public relations and the sphere of public legal relations. The goal of the present research is to conduct a comparative analysis of existing approaches to the AI integration into the sphere of public legal relations of foreign countries and Russia, with the subsequent determination of the most effective constructive approaches to the formation of a regulatory policy regarding AI in Russia. This goal is achieved through the study of the following issues: Strategic goal-setting in relation to AI in Russia and other countries; Tactical implementation of AI integration into public legal relations and possible solutions in order to ensure AI decision-making transparency; Model compensatory measures that ensure AI safe integration into public relations in Russia. The object of the study comprises regulatory sources, strategies, and other documents regulating the AI integration into the sphere of public legal relations in Russia and foreign countries, judicial practice examples, and academic publications on the issues under study. The research methodology incorporates a complex of modern philosophical, general scientific, special scientific methods of cognition, including dialectical, systemic, structural-functional, hermeneutic, comparative legal, formal legal (dogmatic), legal modeling methods, and some others. The present research lays special emphasis on the implementation of a comparative legal study of the approaches to and regulation of AI in the public sphere regarding various states experience. The general scientific dialectical method has made it possible to consider the AI position in the legal field from the point of view of the AI regulation variability and trends in the subsequent development thereof, and to substantiate the advantages and disadvantages of various approaches to solve the respective issues, as well. Additional emphasis is also laid on addressing the issues of the applied nature of the AI use in the
field of public relations in Russia, taking into account the legal modeling and development of compensatory measures within the authorities’ regulatory approaches. 

**Key words:** artificial intelligence, comparative legal research, electronic person, information law, predictive law, intellectual persecution  

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**Модельные подходы к интеграции искусственного интеллекта в сферу публичных правоотношений в России на базе сравнительного исследования опыта зарубежных стран**

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**Аннотация.** Технологии искусственного интеллекта (ИИ) являются одним из значимых решений, способных фундаментально изменить как общественные отношения, так и сферу публичных правоотношений. Цель исследования – провести сравнительный анализ действующих подходов по интеграции ИИ в сферу публичных правоотношений зарубежных стран и России, с последующим определением наиболее эффективных конструкционных подходов формировании регулятивной политики в отношении ИИ в России. Указанных целей подразумевает изучение следующих вопросов: стратегическое целеполагание в отношении ИИ в России и зарубежных странах; тактическое исполнение интеграции ИИ в сферу публичных правоотношений и возможные пути решения в целях обеспечения прозрачности принятия решения ИИ; модельные компенсаторные мероприятия, обеспечивающие безопасную интеграцию ИИ в сферу публичных правоотношений России. Объект исследования – нормативные документы, стратегии, и иные документы регламентирующие вопросы интеграции ИИ в сферу публичных правоотношений России и зарубежных стран, судебная практика, академические публикации по исследуемой проблематике. Методология исследования интегрирует комплекс современных философских, общенаучных, специально-научных методов познания, включая диалектический, системный, структурно-функциональный, герменевтический, сравнительно-правовой, формально-юридический (догматический), метод правового моделирования и др. В рамках настоящего исследования делается особый акцент на осуществлении сравнительного правового исследования подходов и регулирования ИИ в публичной сфере на основании опыта различных государств. Общенаучный диалектический метод дал возможность рассматривать положение ИИ в правовом поле с точки зрения вариативности регулирования и тенденций последующего развития регулирования указанной технологии, обосновать достоинства и недостатки различных подходов к решению вопросов. Дополнительный акцент также сделан на решении вопросов прикладного характера применения ИИ в сфере публичных правоотношений в России, с учетом правового моделирования и выработки компенсаторных мероприятий в рамках регулятивных подходов органов власти.

**Ключевые слова:** сравнительное правовое исследование, электронное лицо, информационное право, предиктивное право, интеллектуальное преследование  

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Introduction

The AI positioning in the legal field is one of the significant issues. The AI legal status is assigned with a systemic role at the level of state institutions. This status is considered both in the documents of the President of Russia and his speech\(^1\), and in the documents of the Government of Russia\(^2\).

Regarding the doctrinal research, it should be noted that the elaboration of certain issues has been provided both in the dissertations (Morhat, 2018; Marchenko, 2022; Schchitova, 2022) and in fundamental scientific publications (Yastrebov, 2018a, b; Ponkin & Redkina 2018; Momotov, 2021). Within these latter sources, special consideration should be given to the research by O.A. Yastrebov (2018a), who notes the need to improve administrative law and make appropriate changes to the Code of Administrative Offenses, taking into account the emergence of new technologies in the field of artificial intelligence.

A similar position is underscored by German lawyer Scherer (Scherer, 2016), who underlines the need to develop the legal regulation of AI, including mechanisms of tort liability regarding AI systems, joint liability for the use of non-certified AI products, etc.

A diametrical position is taken by a number of scholars (Bryson, Diamantis, & Grant, 2017), who believe that the allocation of a separate legal personality for AI can weaken the human legal position. We should also keep in mind that some researchers view current legal entity-based add-ons for AI as the vulnerable ones due to AI-limited exposure to administrative and criminal liability (Chopra, & White, 2004).

Strategic goal setting in relation to AI in Russia and foreign countries

As far as the AI positioning in the field of public relations regarding foreign countries trends is concerned, it should be taken into account that a number of foreign countries have set up specific departments, developed strategic documents and shaped a target vision of AI, including its positioning in the field of public relations.

Thus, in Germany, the implementation of AI regulation is entrusted to the Federal Ministry of Digital Technologies and Transport, which is reflected in the regulatory policy

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1 Decree of the President of the Russian Federation No. 490 of October 10, 2019 "On the development of artificial intelligence in the Russian Federation".
2 Decree of the Government of the Russian Federation No. 2129-r of August 19, 2020 "On the Concept for the development of regulation of relations in the field of artificial intelligence technologies and robotics for the period up to 2024".

in terms of forming an approach to the regulation of unmanned vehicles. Regarding the strategic planning angle, in 2018, the artificial intelligence strategy was approved. The document establishes a set of measures to integrate AI into the public segment, increase the availability of public data and develop tools in the field of ethics and transparency in AI decision-making process.

As far as France is concerned, a national strategy for AI development was announced by the French President in 2018. As part of this strategy, priority areas for the development of AI for the public sector have been identified, namely the openness of data, participation in the ecosystem formation, the study of ethical issues and the adaptation of national approaches to regulation with a pan-European approach. The Ministry of Economy, Finance, Industrial and Digital Sovereignty is the central authority that is responsible for the AI. The AI basic specialization for the public regulation purposes covers the medical field, the protection of the basic rights and freedoms of the population (data related to physical identification, the proper and safe processing of personal data, development of uniform standards and principles for AI certification products). It should also be highlighted that in this country the issue of judicial component regulation, including predictive justice, is being actively worked out. In addition to the digitization and publication of the data required by the trial (art. L.111-13 of the Code of Judicial Organization), the Courts of Appeal of Rennes and Douai have been testing AI for the purposes of implementing predictive justice.
In the US, the national AI strategy is driven by the 2020\textsuperscript{14} National Initiative. This document contains the ambitious goal of the country’s absolute leadership in this industry, with an understanding of the consequences of this technology impact on all sectors of the economy (potential transformation of labor relations and social implications). Accompanying documents were issued by the President of the United States (Executive Orders 13960\textsuperscript{15} and 13859\textsuperscript{16}), which complement the provisions of this strategy in the context of scientifically applied activities and AI integration into the public administration. In addition, the AI In Government Act of 2020 (Section U, Section I)\textsuperscript{17} defines the mandate of the AI Center of Excellence (GSA AI), which is the aggregator of best practices for AI integration into public affairs. However, it is difficult to identify a single document that specifies the ultimate goal of AI integration in public legal relations fields (since each federal authority formulates its own goals (defense\textsuperscript{18}, healthcare\textsuperscript{19}, justice\textsuperscript{20}, etc.), the assessment of the funds spending efficiency by the department and other resources for integrating AI is carried out through an annual audit.

While turning to China, one can see that the state has been developing approaches to the integration of AI since 2015 as part of the state policy. The 13\textsuperscript{th} Five-Year Development Plan\textsuperscript{21} for the 2016-2020 period takes into account, among other things, the need for the AI full integration in the legal proceedings, including administrative justice. Regarding this period, the goal-setting covers the formation of such areas as intelligent case resolution, intelligent litigation, and intelligent evaluation of materials and evidence (Xu, 2017). Mention should be made of the fact that China, in terms of integrating e-justice and, most importantly, AI justice, has achieved significant results due to the AI implementation pilot mode (system 106) (Cui, 2020) in Shanghai\textsuperscript{22}. China is one of the crucial players in the...
global market regarding the development of AI and its regulation. China has developed over 1,200 national plans to regulate the AI application and integration into the public sphere. However, it is critical to keep in mind that the number of legal acts does not always contribute to the quality of regulation (accuracy and direct relevance of regulation). In addition, there is lack of a centralized approach in China, since the country authorities are guided by a “soft” regulatory policy based on the formation of books of white practices and the development of ethical aspects within the doctrinal framework (Zhang et al., 2021; Liu, Shi 2020). Further, China plans to provide detailed approaches to AI regulation by 2025.

While elaborating on progressive approaches to AI and robotics regulation (in the context of the program shell), one cannot fail to mention the experience of Saudi Arabia. This is the only state that has risked setting a precedent for a formal equalization of the rights of a robot and a human by granting the citizenship of the kingdom to robot Sophia. It is necessary to single out the strategic document “Vision 2030”, which defines the basic settings in the context of economic diversification, by investing oil and gas revenues in technological solutions (including AI). Regarding the Kingdom of Saudi Arabia authorities, the Saudi Arabia Department of Data and Artificial Intelligence (SDAIA) has been set up. It acts as the responsible authority for the AI systems deployment, that incorporates the needs of the authorities, as well. Among the specific indicators that the Kingdom of Saudi Arabia expects by 2030, it is possible to single out quantitative indicators (requirements for the number of civil servants trained in working with AI, experts, positioning of the country in the world community in terms of data openness, scientific and publication activities, and some other indicators, as well).

Considering the documents of the President and the Government of Russia (mentioned in the Introduction), it is necessary to underline the comprehensive nature of AI issues vision presented in these resources from the point of view of the economy, technology, legal formalization, and ethical component in the context of AI integration into the sphere of public relations. Further, in the context of public legal relations, the need to use AI in

the fields of "smart" consideration of citizens' appeals, public services provision, the implementation of permitting actions, the control and supervisory measures is separately determined. The respective tasks require the formation of transparent rules for AI systems evaluation, and examination of their application effectiveness, as well as appropriate legal formalization for the AI integration into public administration. Upon the whole the implementation of relevant activities is planned for 2024.

**Tactical implementation of AI integration into public relations and possible solutions to ensure AI decision-making transparency**

It should be noted that the introduction of AI into public relations areas generates both positive and negative experiences.

For Latin American countries (Colombia and Brazil), the use of AI brings significant preferences in terms of public authority. The KBoot program, as part of the market analysis, identifies nondeclared commercial activities carried out on the Instagram site. During the analysis of public data of citizens of Medellin 2.6 thousand people were identified as traders, while only 453 of them were registered with the treasury (local tax authority). AI Laura provides a predictive package of medical services for patients with sepsis. If negative indicators are detected in a patient (especially critical for his/her health), the specified algorithm calls an on-site team of doctors to the patient.

Estonia uses the modernized SATIKAS space monitoring system, which allows remote analysis of the effectiveness of the use of state-subsidized sown areas. It should be noted that only 5% of the sample of inspected objects were covered in the field inspections of the Estonian relevant department (Misuraca & van Noordt, 2020).

The VeriPol AI is used as part of the internal security service in Spain. This tool detects possible false reports provided by the police. The effectiveness of this technology for only one week in January 2019 showed that 80% of the submitted reports from the corresponding sample were false.

The negative experience of foreign partners in the field of AI application for the public authorities’ services should also be subject for consideration. The most common phenomenon is the opacity of the sample or its discriminatory nature in the course of AI data processing. The highly specialized SyRI AI in the Netherlands conducted an analysis of fraud in the provision of benefits for socially vulnerable groups, in fact, this mechanism was contrary to basic human rights and subsequently influenced the opinion of the...

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30 Tracking potential tax evaders on Instagram. OECD. Available at: https://oecd-opsi.org/innovations/tracking-potential-tax-evaders-on-instagram. [Accessed 20th January 2023].
31 Official website of AI Laura. Available at: https://www.laura-br.com/. [Accessed 20th January 2023].
33 Artificial intelligence tool used to catch people who lie to the police. Available at: https://www.telegraph.co.uk/news/2019/01/07/artificial-intelligence-tool-used-catch-people-lie-police/. [Accessed 20th January 2023].
International Court of Justice which ruled that the use of this technology by civil servants was inadmissible and their actions contradicted article 8 of the European Convention on Human Rights (the non-transparent nature of work and social risks significantly exceed economic feasibility)\(^{35}\). A similar experience was recorded in Poland in a similar situation. AI technology conducted a completely autonomous analysis of the unemployment market (Niklas, Sztandar-Sztanderska & Szymielewicz, 2015). The reasoning position of the Polish Constitutional Court turned out to be identical to the Netherlands’ practice\(^{36}\).

A proactive position is taken by foreign partners (represented by the Anglo-Saxon group of countries) regarding the areas of influence of AI technologies on the sphere of public relations and the need for technology control.

In the United States, local initiatives are taken to prohibit the use of AI for public authorities’ needs in case of a discriminatory phenomenon\(^{37}\). The Canadian authorities require the use of AI technology for public authorities’ services and needs, only after these technologies have passed the appropriate verification, ensuring their accountability and security\(^{38}\).

It should be underlined that in Russia the issue of supervising the implementation of AI in the sphere of public administration has been assigned to the National Center for the Development of Artificial Intelligence\(^{39}\). This center accompanies the national portal in the field of AI, participates in the selection of AI solutions for all eligible industries, monitoring of the technology development, and regulatory documents expertise.

**Model compensatory measures that ensure AI safe integration into public relations in Russia**

As we can see, at the strategic and tactical levels, one of the “cornerstones” of the integration of this technology is to ensure the AI transparency\(^{40}\). This issue is also reflected in the discussions of domestic and foreign scientists.

D. Burrell in his works notes that the realization of the opacity of the decision made by AI for AI is not the goal itself, since then it is necessary to disclose the full chain of decision making (how and what data are entered into the system, how reliable and not distorted they are, how they are formulated as the result of processing) (Burrell, 2016). J. Costas and K. Gray support the trend of the applicability of human ways of cognition to AI, since they only create the illusion of accountability of this technology to a person (Grey & Costas, 2016).


Regarding the applied angle of the AI application, A.V. Martynov and M.V. Bundin recommend, for the purposes of the authorities’ activities, the mandatory introduction of ethical and philosophical principles, including the above accountability, stability, etc. (Martynov & Bundin, 2020).

The author of this article assumes, that the simplest solution to the issue of transparency in AI decision-making, without reference to the human perception of technology (its identification and anthropocentricity), the technical level of preparedness (one needs to be aware of the fact that this technology goes far beyond the basic ICT tools used by most people in everyday life) may be the use of "counterfactual" explanations. The idea was introduced by D. Lewis and, in relation to AI, this explanation does not imply the disclosure of the full complex of decision algorithms, but only the constituent elements that are disclosed for the purpose of changing and achieving the desired result (Lewis, 1973).

The second "cornerstone", according to the author of this article, is the issue of access to information for AI and target areas for the experiment in the performance by AI of public functions and integration areas for implementation thereof.

It should be understood that the previously mentioned basic document of the Russian Government, which provides for the strategic and tactical outline of the integration of AI into the sphere of public relations, includes, among other things, the possibility of using experimental modes, as well as a mode for accessing GIS data necessary for AI systems development. At the same time, it is critical to understand the need to formulate unified internal approaches to labeling and grading the levels of access to AI information, while taking into account the understanding of its technological safety, social and economic efficiency (which is also enshrined in the Decree of the Government of Russia).

When we talk about information and access levels, we mean data, messages, pictures, and so on. regardless of the form of their presentation (Article 2 of FZ-14941). At the same time, the regulation of access to data depends on the interested parties (personal, corporate, public, etc.)

The author of this study proposes to consider a simplified approach to distinguishing three levels of access to AI information, namely basic, advanced and predictive ones.

Regarding the basic level of admission, it is proposed to define routine processes that are implemented within the framework of cameral procedures in relation to offenses that have minor social consequences and use the internal database of the relevant authority or segment of regulation. These processes imply selective verification by a person, as well as monitoring of possible procedures for challenging AI decisions by a supervised entity.

It is proposed to define the advanced level of access and processing of information for use in the case when there is a procedure for an on-site verification (characterized by the risk to interpret the actions of the checked object as falling under administrative and criminal liability of small and medium severity). It should be understood that in this case there is a mandatory verification of all AI requests from the authorized representative of the department. Within the interaction framework, it is possible to use a single platform "Gosuslugi", within which data are exchanged between the participants in the process and the AI of the relevant department.

41 Federal Law No. 149-FZ of 27th July 2006 (as amended on 5th December 2022) “On Information, Information Technologies and Information Protection".
The predictive level of admission to and processing of information is used to suppress significant administrative and criminal offenses. Within the framework of this approach, AI, or a possible conglomeration of several systems (swarm AI) collects information from all available information sources in order to form model structures for the behavior of subjects.

For the purposes of implementing graded approaches to information processing for the administrative control purposes, the present study also suggests taking into account that the tested segment must have unified features and a large amount of data. As part of the consolidated administrative judicial practice42, it can be specified that the examples of basic legal relations that are recommended to be used to test AI and its effectiveness can cover the following cases:

1) related to offenses that encroach on public order and security;
2) related to offenses in the field of financial markets and taxation;
3) related to offenses in the field of compliance with the management procedure;
4) related to offenses in the field of road transport.

The indicated segments are confirmed as the most statistically capacious segments of court activities, as well as the most digitized or infrastructurally developed segments of legal relations (cameras, data exchange, photo and video recording, etc.).

As part of the long-term planning of AI predictive response in order to suppress offenses in these areas, it will be necessary to adapt the approaches provided for by the Code of Administrative Offenses of the Russian Federation in the following areas:

1. Development of proactive tools for notifying about the inadmissibility of the actions of a particular actor with the interpretation of its actions within the framework of administrative law and proposals for alternative legal ways to achieve the goal set forth by the subject who specified the goal (with subsequent consideration within the framework of an administrative investigation and prosecution, provided for in Article 4.3. of the Code of Administrative Offenses of the Russian Federation).

2. Development of proactive tools at the time the actor commits an offense, which implies prompt notification of the relevant employee of the authority about the actor’s existing encroachments, as well as a possible suppression of its actions through blocking the premises, transport facility, means of payment, etc.).

It should be noted that the proposed aspects of implementing integration measures in relation to AI and its subsequent actions by the authorities are highly risky and require solving the problems of identifying AI in the field of public legal relations as the third aspect of the "cornerstone".

At the moment, in Russia there are no specialized requirements for companies engaged in AI developments, by analogy with banking43. However, the correlation of these segments, according to the author’s opinion, exists in practice, through a large amount of big data and the necessary infrastructure for business activities processing, a high degree of AI impact on the country's security, etc.

42 Judicial Department under the Supreme Court of the Russian Federation. Available at: http://www.cdep.ru/?id=79. [Accessed 20th January 2023].
43 Federal Law No. 395-1 of 2nd December 1990 (as amended on 14th July 2022) “On Banks and Banking Activities".
In this regard, it is recommended to consider the development of specific approaches to regulate the companies involved in the AI development, on a similar basis (by analogy with banking):

1. Identification. It is necessary to develop unified principles for the registration of these legal entities. The basic permit structure implies the licensing of activities, an alternative to which may be the formation of self-regulatory organizations (SROs) in the specified market. The author of this article assumes that the membership in the SROs is preferable, since it takes into account the opportunity to form a compensation fund (with the possible construction of sliding scale of membership fees), which is not provided for within the framework of licensing activities. The mandatory membership in the SROs will lay grounds, first, to unify and identify the contour of market participants, and second, to ensure the formation of an imperative obligation to provide the source code both to the SROs and the relevant authority, and will allow the formation of a double loop of control over AI technology.

2. Rating. After identifying market participants in the field of AI, a rational stage in order to ensure that society understands the effectiveness and safety of technology (including for the purposes of public authorities) is AI companies ranking regulation (similar to the social rating used in China\(^{44}\). Considering the significant nature of the impact of AI technology on the sphere of public relations, it is recommended to develop the following principles regarding the ranking of these entities, namely the identification of the technology ultimate beneficiary, the identification of depth of the person positioning in the AI market (the potential degree of danger of the technology), the advancement of the technology stability (the presence of technological failures and the facts of “data leaks”), the monitoring of the number of appeals to control and supervisory authorities. At the same time, in the context of the AI use in the field of public legal relations, it is recommended to detail the number of digitized and algorithmized AI processes, to conduct a consistent analysis of the degree of impact and influence on the profile segment of public legal relations (or a bunch of AI and an official), to foster a stability of the AI – made decisions in the framework of the judicial procedure for AI-facilitated appeals on the authorities’ actions, as well as to enforce a comprehensive perception of the technological readiness of individual AI technical solutions.

3. The regulation of the above rating will make it possible to formulate (in the future) a sliding and flexible mechanism for AI regulation according to the public relations goals, that takes into account the mentioned graded levels of access to information, the identification of white practices for the use of AI for the authorities’ goals, the specification of areas where a completely autonomous implementation of AI is possible, and where it is necessary to link AI and humans, as well as the implementation of balanced incentive measures for AI developers (with the consideration of the risks of market monopolization and the degree of influence of specific technical solutions on the government bodies operation).

\(^{44}\) China’s Corporate Social Credit System. Available at: https://www.uscc.gov/sites/default/files/2020-12/Chinas_Corporate_Social_Credit_System.pdf. [Accessed 20th January 2023].
Conclusion

In the light of the foregoing, we can conclude that the issue of regulating AI in the field of public interests is strategically significant at the national state level as the evidence from various countries confirms. Meanwhile, the focus of regulation of relations has a different nature of specialization depending on a particular country.

While considering the very nature of AI in the field of public relations, it should be recognized that there are both positive examples of the AI technology use for the purposes of the state, and potentially challenging areas, which are subsequently considered by specialized courts within the framework of the AI-used algorithms transparency.

Regarding the effective integration of AI into the sphere of public relations in Russia, the following measures are suggested:

1. To ensure transparency in the AI-decision making, it is necessary to use counterfactual explanations.

2. To ensure an effective experimental mode of AI integration, it is recommended to define three levels of access to information (basic, advanced and predictive), and four basic sectors of legal relations for conducting an experiment on the use of AI (offenses in the field of financial markets and taxation, compliance with the management procedures, traffic transport, public order and security). Further it is relevant to work out compensatory measures to legalize mechanisms for implementing AI predictive response, to develop tools for identifying AI market participants on the basis of SRO membership, to design the regulation of the AI ranking procedure for the purposes of public and public legal relations and to construct appropriate stimulating and balanced measures in relation to the regulation of individual technological solutions in the field of AI.

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