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Legal Regulation of Artificial Intelligence: Experience of China

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Keywords

artificial intelligence, comprehensive approach, digital technologies, draft of law, generative artificial, intelligence, iterative character, law, risk-oriented approach, sectoral approach

Abstract

Objective: to trace the development trajectory of legal regulation in the field of artificial intelligence in the People's Republic of China by revealing the advantages and disadvantages of China's approach to artificial intelligence regulation and to outline the prospects of national regulation for the nearest future, taking into account the world experience.

Methods: general scientific methods of analysis and synthesis, classification, systemic and functional approaches. Also, the formal-legal, comparative-legal, and historical-legal methods were used.

Results: the research demonstrates the validity of Chinese claims for world leadership in the creation of legal regulation of artificial intelligence, as it is in China that the first normative legal acts were adopted. These acts have already entered into force; however, each of them deals with a narrow range of issues, while there is no law to establish general rules for the artificial intelligence industry. Among the characteristic features of the Chinese approach we can name, first of all, its iterative nature, which allows adjusting the regulation with each new step. Another feature is the sectoral nature of the regulation.

Scientific novelty: in the course of the research, the development stages of artificial intelligence legal regulation in China were identified and described; the advantages and disadvantages of the Chinese approach to regulation were identified and argued; this approach was compared with the approaches of China's main rivals competing with it in terms

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of the technology development and its legal regulation. All of the above allowed making conclusions about the subsequent development of legal regulation in China and in the whole world.

Practical significance: familiarization with the research materials enables interested legal scholars, and not only them, to get a clear idea of the level of artificial intelligence regulation, achieved by China. China's experience is of significant interest to the rest of the world, showing the correctness or faults of possible regulatory options in the new and complex field. The study results can be used in the practice of legal regulation in the sphere of artificial intelligence, as well as in preparing lectures in the relevant courses and writing tutorials for law students.

For citation

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Introduction

Artificial intelligence is rapidly developing, influencing the life of people more and more intensively every day, and requires a special legal regulation (Wang & Wang, 2022). The evidence of this is the intensified creation of new legal norms at the level of state bodies in different countries and at the level of interstate bodies in different regions of the world. China claims for leadership in the field of artificial intelligence legal regulation, trying to get ahead of other subjects of world politics and thus globally influence the vector of regulation development. It is worse mentioning that at least three points must be distinguished, in which different states and their associations compete. These are, firstly, the level of artificial intelligence development; secondly, the pace of its development; and, thirdly, the level of development of legal regulation in this area. By the first indicator, China is steadily occupying the second position, only yielding to the United States and significantly ahead of the rest of the world in terms of research conducted, commercialization of its results, and development of the relevant infrastructure. China is ahead of the United States in terms of the pace of development, and has set a goal to overtake the United States by the first indicator by 2030, which is greatly facilitated by China's advantage in the amount of data available for algorithmic analysis. By the third indicator – the level of legal regulation development – China claims to be a leader, competing with the European Union, which is also striving to become a pioneer in creating laws regulating relations related to the use of artificial intelligence. Indeed, despite the growing number of regulatory initiatives worldwide, "the number of new Al regimes with an established structure is still relatively small" (Dixon, 2023), while the need for such regulation is growing due to the increasing risks associated with the introduction of artificial intelligence.

1. Stages of the development of artificial intelligence regulation in China

1.1. Initial stage

The first stage is related to forming the bases for regulation in the field of artificial intelligence. It is preparatory and includes the creation of program documents, registering, inter alia, the emerging ethical norms, which may serve as a basis for legislative acts in the future.

In 2015, China launched a comprehensive development program of the People's Republic of China (hereinafter – PRC) called "Made in China – 2025"². In July 2017, the New Generation Artificial Intelligence Development Plan was published³, officially approved by the PRC State Council.

¹ The Global AI Index. https://goo.su/ENE2B

中国制造2025. https://goo.su/60obk4r

Webster, G., Creemers, R., Kania, E., & Triolo, P. (2017, August 1). China's 'New Generation Artificial Intelligence Development Plan'. Stanford University. https://goo.su/hdBFr

The New Generation Artificial Intelligence Development Plan prioritizes the development of artificial intelligence and outlines a national strategy with the objective of making China a world leader in this field by 2030. Whereas previous policy initiatives containing statements on AI development viewed it as only one of the tool for achieving an objective, the Next Generation AI Development Plan is the first national initiative focused on AI development and "intended to be a blueprint for a complete AI ecosystem for the country" (Wu F. et al., 2020).

The New Generation Artificial Intelligence Development Plan, currently implemented in China, is divided into three stages. The first stage is related to China gaining a competitive position in the global market (until 2020); the second stage is related to the breakthrough in theoretical developments and active implementation of artificial intelligence in various segments of the Chinese economy (until 2025); and the third stage is related to China achieving global leadership in the artificial intelligence industry (until 2030).

The plan is managed by the Artificial Intelligence Strategy Advisory Committee formed in November 2017, coordinated by the PRC Ministry of Science and Technology, the Artificial Intelligence Plan Promotion Office, and several other bodies. Despite the centralized guidance, the plan contains a "wish list" to encourage local governments and the private sector to innovate to help realize China's ambitions in the three strategically important areas highlighted in the plan, namely: international competition, economic growth, and social governance (Roberts et al., 2021).

The beginning of the establishment of regulation in the field of artificial intelligence chronologically corresponds to the first stage of implementation of the Chinese national strategy formulated in the New Generation Artificial Intelligence Development Plan. The foundations for subsequent regulation started to be laid since 2017, at least, when a number of state tasks were envisioned in order to achieve the objective stated in the Chinese strategy. The New Generation Artificial Intelligence Development Plan includes setting national standards and conducting research on legal issues to build a legal framework to accelerate the application of new technologies, with a special focus on regulating unmanned transportation and service robots.

On June 1, 2017, the PRC Cybersecurity Law of November 7, 2016 came into effect⁴. It was aimed at protecting critical networks and ensuring national "cyber sovereignty" and became the first stone laid in the foundation of the future legal regulation of artificial intelligence.

In 2018, China published the White Paper on Artificial Intelligence Standardization⁵, which describes the technical standards already established in China and other countries

Creemers, R., Webster, G., & Triolo, P. (2018, June 29). Cybersecurity Law of the People's Republic of China. Stanford University. https://clck.ru/38Qivf

Triolo, P., & Ding, J. (2018, June 20). Excerpts from China's 'White Paper on Artificial Intelligence Standardization'. Stanford University. https://goo.su/plUop

and proposes a system for developing international standards. The document was prepared for the first meeting of the Technical Committee on Artificial Intelligence of the International Organization for Standardization and was intended to bring the developed international standards closer to those of the already existing Chinese ones. This systematized presentation of accumulated experience in technical regulation contributed to the formulation of the foundations of ethical regulation in the field under consideration, which in turn preceded legal regulation.

In 2018, the Chinese government commissioned the China Association of Artificial Intelligence (CAAI) to develop ethical guidelines for artificial intelligence. For this purpose, an entire coalition was formed, whose participants included the Chinese Academy of Sciences, the Beijing Academy of Artificial Intelligence, Beijing University, other academic organizations and a number of Chinese artificial intelligence industry leaders (IT giants). In May 2019, the "Beijing Artificial Intelligence Principles" were published. Among the principles formulated are: serving human values such as privacy, dignity and freedom, constant attention to AI security, inclusion, openness, support for international cooperation, long-term planning, etc. Chinese researchers, as well as scholars from other countries around the world, justified the need to "regulate the development of AI according to the ethics and values of humanity" (Wu W. et al., 2020).

Another document dedicated to ethical regulation is the Code of Ethics for New Generation Artificial Intelligence⁷ published by the Ministry of Science and Technology of the People's Republic of China in September 2021. The document states that artificial intelligence should be trustworthy and controlled, ensuring honesty and fairness, enhancing human well-being, and protecting privacy and security. People have the right to retain the choice to use services provided by artificial intelligence or to refuse to interact with artificial intelligence systems at any point in the interaction.

The initial stage of establishing regulation in the field of artificial intelligence lasted somewhat longer than the time allotted for it by the China's national strategy, namely until 2021, when a number of legislative acts in this area appeared.

1.2. Current stage

The second stage of China's strategy – a breakthrough in the theoretical development and active implementation of artificial intelligence in various segments of the Chinese economy – is planned up to 2025. It generally corresponds to the second stage of regulation formation – the transition from program documents, including ethical rules, to the creation of legislation on the use of artificial intelligence.

⁶ Beijing Artificial Intelligence Principles. (2019). International Research Center for AI Ethics and Governance. https://goo.su/mkRid1y

⁷ 新一代人工智能伦理规范》发布. 2021年09月26日. 来源: 科技部 https://goo.su/Gk6ta

Over 2021, a set of regulations related to artificial intelligence was adopted and entered into force, primarily the following:

- Data Security Law of the People's Republic of China, dated June 10, 2021, effective from September 1, 2021⁸;
- Personal Information Protection Law of the People's Republic of China, dated August 20, 2021, effective from November 1, 2021⁹;
- Critical Information Infrastructure Security Protection Regulations, dated August 17, 2021, effective from September 1, 2021¹⁰.

For example, the PRC Personal Information Protection Law is a framework law that establishes the basic principles, objectives, powers and responsibilities for the protection of personal data, the value of which is increasing in the era of artificial intelligence; however, it does not regulate specific issues. The detailed regulation that ensures the application of the law is carried out by state regulators. The main regulator in the field of artificial intelligence is the Cyberspace Administration of China (CAC), which usually publishes bylaws.

As for the bylaws, it is worth mentioning Regulation on the Management of Algorithmic Recommendations in the Information Services of the Internet, dated December 31, 2021, effective from March 1, 2022¹¹. The objective of this act is to prevent monopolistic behavior of artificial intelligence platforms in order to protect the users' rights. The document requires special caution to meet the needs of older users, including to prevent fraud, and prohibits the algorithmic creation of fake news, the use of discriminatory or biased user tags in algorithmic recommendation systems, and the use of algorithms to engage in monopolistic actions or abusive competition. The Regulation obliges service providers to prevent discriminatory, exploitative working conditions for platform workers (usually couriers and drivers), requires them to work towards mitigating the spread of negative information, and gives consumers the right to disable algorithmic recommendations and receive explanations when an algorithm significantly affects their interests.

On November 25, 2022, Provisions on the Administration of Deep Synthesis Internet Information Services¹² (sometimes referred to as the Deepfake Regulation) was published. The document, effective from January 10, 2023, contains requirements for the provision

Bota Security Law of the People's Republic of China. (2021, June 29). Stanford University. https://goo.su/yUFiOA

Creemers, R., & & Webster, G. (2021, August 20). Personal Information Protection Law of the People's Republic of China. Stanford University. https://goo.su/Fkeic

Creemers, R., Sacks, S., & Webster, G. (2021, August 18). Critical Information Infrastructure Security Protection Regulations. Stanford University. https://goo.su/DS60

Provisions on the Management of Algorithmic Recommendations in Internet Information Services. (2021). China Law Translate. https://goo.su/338U65

Provisions on the Administration of Deep Synthesis Internet Information Services. (2022). China Law Translate. https://clck.ru/38Qr2i

of deep synthesis services for the creation of images, video, audio, and text. The generated content must comply with information control regulations, be labeled as synthetically created, its providers must take measures to prevent misuse and register their algorithms (it is prohibited to publish content created by artificial intelligence without special labeling).

In addition to national acts published by the China Cyberspace Administration, municipal acts are emerging. They play an important role, as the municipalities in which such acts are issued are usually multimillion high-tech megacities:

- Regulation of the Shanghai Municipality on Promoting the Development of the Artificial Intelligence Industry, dated September 22, 202213. It aims to mobilize supercomputer infrastructure, data centers and apply artificial intelligence technology in municipal government (effective from October 1, 2022);
- Regulations for the Promotion of the Artificial Intelligence Industry in Shenzhen Special Economic Zone, dated August 30, 2022¹⁴. It aims to promote the use of artificial intelligence while ensuring the ethical principles of using artificial intelligence to avoid discrimination or violation of privacy (effective from November 1, 2022), etc.

In 2023, the China Cyberspace Administration, together with several other national departments, issued the Regulations on the Interim Measures for the Management of Generative Artificial Intelligence Services, dated July 10, 2023, which came into effect on August 15, 2023¹⁵. As stated in Article 1 of the Regulations, it is designed to promote sound development and regulated use of generative artificial intelligence, safeguard national security and public interest, and protect the rights of citizens and legal entities. The document calls on administrative authorities and courts at all levels to adopt a cautious and tolerant stance towards artificial intelligence. An example of a response to this call is a 2023 decision of the Beijing Internet Court stating that content generated by artificial intelligence can be protected by copyright¹⁶, although it had previously denied such protection (Wan & Lu, 2021). Recognition of copyright to certain Al-generated content not only encourages its use, increasing the commercial value of Al-based products and services, but also raises the question of corresponding revision of copyright law and contradicts positions taken in other major jurisdictions, including the United States (Huyue Zhang, 2024).

Regulation of the Shanghai Municipality on Promoting the Development of the Artificial Intelligence Industry. (2022). https://clck.ru/38Qr3Z

Regulations for the Promotion of the Artificial Intelligence Industry in Shenzhen Special Economic Zone. (2022). https://clck.ru/38Qr4H

Interim Measures for the Management of Generative Artificial Intelligence Services. (2023). https://clck.ru/38Qr5D

Deng, I. (2023, December 1). Beijing court's ruling that Al-generated content can be covered by copyright eschews US stand, with far-reaching implications on tech's use. South China Morning Post. https://clck.ru/38Qr6K

Another regulation, a draft of which was published by the China Cyberspace Administration in August 2023, is due to be adopted in 2024; it is the Regulation on Facial Recognition Technologies¹⁷. The objective of this act is to regulate the use of such technologies, protecting the right to personal information while maintaining public order and security. The document prohibits the use of facial recognition technologies to analyze race, ethnicity, religious beliefs and health status. The exception is when a person has given consent or it is required in the interest of national security. Thus, while Chinese law enforcement and state security agencies widely use facial recognition technologies, the new rules limit the use of such technologies to non-state entities such as banks, airports, hotels, etc. For security objectives, image collection and identification equipment must be installed in public places, but the managers of facilities (buildings and structures) are not obliged to use facial recognition to control entrances and exits and must ensure that alternative means of identity verification can be used by those who wish it.

Among the projects under development, a draft law on artificial intelligence deserves special attention. It is intended to regulate relations in the field of artificial intelligence more fully. The project initialization was included in the 2023 legislative work plan of the PRC State Council¹⁸. In August 2023, a preliminary law draft prepared by a group of researchers from the Chinese Academy of Social Sciences was published as Model Law on Artificial Intelligence, Version 1.0 (Draft Expert Proposal)¹⁹. Stanford University experts emphasize that it was prepared under the supervision of the Deputy Director of the Cyber and Information Law Research Department of the Chinese Academy of Social Sciences, who is also the head of a research project on artificial intelligence ethics and regulation. This suggests that the project is supported by a number of influential Chinese politicians and, although not governmental in nature, will "serve as a reference for legislative work"²⁰. The main objective of the project is to design a mechanism to maintain a balance between security and development. The basic principles underlying the regulation proposed in the draft are as follows:

- focus on the benefit of people (Art. 4);
- ensuring the safety of research and products based on artificial intelligence (Art. 5);
- openness, transparency and explainability (Art. 6);
- accountability and legal responsibility of those involved in the research, development,
 provision or use of artificial intelligence (Art. 7);

Ministry of Justice of the People's Republic of China. (2023). China mulls first nationwide comprehensive quidelines for use of facial recognition technology. https://goo.su/zJ00DV1

¹⁸ 国务院办公厅关于印发 国务院2023年度立法工作计划的通知. https://goo.su/rTEAe0X

¹⁹ 人工智能法(示范法) 1.0》(专家建议稿). https://clck.ru/38QrG3

Webster, G., Zhou, J., Shi, M., Dorwart, H., Costigan, J., & Chen, Q. (2023, August 23). Analyzing an Expert Proposal for China's Artificial Intelligence Law. Stanford University. https://clck.ru/38QrHZ

- fairness and equality (Art. 8);
- resource efficiency and environmental protection (Art. 9);
- promotion of innovation (Art. 10);
- international cooperation (Art. 11);
- legality and legitimacy, obligation to adhere to socialist core values (Art. 14).

According to the law draft, the main responsibility will lie with the vendors (sellers), but the developers will be required to provide the necessary assistance, for example, in explaining the algorithms and in assessing the risks of the model. This will prevent them from avoiding liability by including it in the vendor contract terms or under the pretext of protecting trade secrets.

In addition, the law draft mentions a so-called negative list. Actions listed will require special administrative approval, while actions not included in the list will only require registration with the regulatory authorities. The list itself is not found in the draft, nor is there any differentiation of regulation with regard to open source models. Such artificial intelligence models are of great importance for knowledge dissemination and create competitive restrictions for dominant companies, which usually do not disclose the codes of their models. However, Article 43 of the draft provides for stricter oversight of "basic models" that can be used in a multitude of Al applications.

The enactment of the Artificial Intelligence Law is likely to open up the next stage of the AI regulation development in China, the prerequisites for which will be mentioned below, when enumerating and explaining the characteristics of the Chinese approach.

2. Features of artificial intelligence regulation in China

2.1. Characteristics of the Chinese approach to artificial intelligence regulation

Before characterizing China's approach to AI regulation, it is worth highlighting some points explaining the national AI development strategy. It is based on four main drivers for development. The first of them is fundamental technology, i. e. the development of microchips, which China is still forced to purchase abroad, being dependent on foreign technologies. Among the countries supplying China with microchips and equipment for their production, the United States, Taiwan, South Korea, Japan and the Netherlands used to prevail. However, after the "trade war" between the U.S. and China started in 2018, the objective of which is to prevent China from maintaining its primacy in terms of technological development rate, there was a decline in the possibilities to import chips and an increased need for technological sovereignty. The second factor contributing to the artificial intelligence development is data; here China, thanks to its large population, has a huge advantage. The third factor is qualified personnel capable of creating the necessary algorithms, in which China is still losing to the United States. The fourth factor is the commercial ecosystem of artificial intelligence and related technologies, which in China is formed by IT giants that dominate the artificial intelligence

market (Keller et al., 2024). Such IT giants, which are private companies, but are closely linked to the state, can quickly introduced new developments into their products due to their large-scale production²¹. As we can see, China has a number of advantages (amount of data, infrastructure, commercialization opportunities), but lacks in chip development and the necessary personnel. In an effort to overcome the shortcomings, China is developing relevant programs and allocating significant resources to scientific research and training of specialists.

For the field of artificial intelligence to develop and expand productively, investors and entrepreneurs need clear "rules of the game", and it is the law that should establish them. China's approach to regulating artificial intelligence reflects these "rules of the game". As with any approach, it has the following characteristics:

- a desire to promote the acceleration of technological development in its territory;
- a focus on preventing abuse by dominant market players;
- recognizing the primacy of ethical rules as a fundamental basis for the legal regulation of artificial intelligence;
- declaring the priority of human rights (anthropocentrism), thus conforming to the general principles in the field of artificial intelligence (Floridi & Cowls, 2019), proclaimed at the level of the United Nations in 2022²².

To the point, in November 2022, China published an official document entitled "Position Paper of the People's Republic of China on Strengthening Ethical Governance of Artificial Intelligence"²³, which calls on the international community to agree on the ethics of artificial intelligence and work on formulating a common international framework and standards. In other words, China urged the international community to reach an agreement on the ethics of artificial intelligence and work to formulate a common international framework and standards, i.e. to concretize common principles for "global consensus with mutual respect, and actions for the good of humanity" ²⁴. The document emphasizes that China advocates a responsible approach to artificial intelligence, including joint responsibility and management by multiple stakeholders. The latter include governments and scientific organizations, industry, community, etc.

Kovachich, L. (2020, July 7). Chinese experience of developing the artificial intelligence industry: strategic approach. https://clck.ru/U8Egn

Principles for the Ethical Use of Artificial Intelligence in the United Nations System (10 principles endorsed by the United Nations System Chief Executives Board for Coordination in September 2022, based on the 2021 UNESCO Recommendation on the Ethical Dimensions of Artificial Intelligence).

Permanent mission of the People's Republic of China to the United Nations office at Geneva and other International organizations in Switzerland (2022, November 16). Position Paper of the People's Republic of China on Strengthening Ethical Governance of Artificial Intelligence. https://goo.su/0D2F02Q

Zeng, Yi. (2022, November 23). China responsible on AI ethical governance. China Daily Global. https://goo.su/vHFVIp

The main features that distinguish the Chinese approach to AI regulation are:

- 1) responsiveness of regulation (quick response to technological challenges, where a document is created that includes some general principles to make it clear to developers, investors and users how to treat the relevant technology);
- 2) iterative regulation (state authorities adopt an act, test it, then adopt a new act or a new version of the previous act depending on the results obtained, gradually specifying the rules);
- 3) sectoral regulation (there is no law covering the norms that comprehensively regulate the whole sphere; rather, separate normative legal acts are adopted to solve different problems in the field of artificial intelligence);
 - 4) ideological control (presence of censorship, in particular, censorship of algorithms);
- 5) broad powers of the state administration bodies to issue bylaws establishing many exceptions and exemptions from the norms contained in the laws.

China's approach emphasizes stimulating innovation in the field of artificial intelligence while ensuring state control over the technology. With a vast territory and many differences between regions, China allows each of them to develop their own strategies (Yang & Huang, 2022). This does not contradict the national New Generation Artificial Intelligence Development Plan, which includes a "wish list" that encourages local authorities to implement new technologies in order to achieve the general public interests.

According to the classification of approaches to artificial intelligence regulation proposed by a European researcher N. Petit (a member of a high-level interdisciplinary group of experts on artificial intelligence created by the European Commission in 2018), all approaches can be divided into two groups – legal and technological. The approaches of the first group aim to systematically address the issues arising from the artificial intelligence application, while the approaches of the second group are driven by technological change, addressing the problems that arise on a point-by-point basis (Petit, 2017). In this sense, the Chinese approach should be categorized in the second group.

The approaches included in the first group demonstrate comprehensiveness by proposing "horizontal" regulation, where the provisions of a law cover a wide range of issues in the area it regulates. In the approaches of the second group, including the Chinese one, there is "verticality" of regulation: separate legislative acts address rather narrow problems, which indicates not just sectoral character of regulation, but its fragmentation. At the same time, the development of the draft law on artificial intelligence, taking into account the already existing unofficial draft created in China, allows cautiously predicting some change of the vector from a point-by-point to comprehensive regulation (which is facilitated by the iterative nature of the Chinese approach), and hence the emergence of "horizontality" in the regulation of artificial intelligence.

2.2. Advantages and drawbacks of the Chinese approach to artificial intelligence regulation

Given the above features of the Chinese approach, its main advantages can be highlighted.

Firstly, the advantage of the approach arising from the regulation responsiveness is that China was the world first country to regulate a number of issues in the field of artificial intelligence. China's legislation introduced legal norms that were not reflected in other countries' legislation even before the end of 2023. These are, in particular, such measures as:

- introduction of licensing (supervisory regulation of advanced models of artificial intelligence that may pose a threat to public safety);
- refusal to license companies that research, develop and use generative artificial intelligence but do not provide services to the public;
- designating a specialized regulator for artificial intelligence, the Cyberspace Administration of China;
- the regulator requiring generative AI developers to take measures to improve the training data accuracy.

The inclusion of a number of new regulations has strengthened China's claims for leadership in the artificial intelligence regulation and the translation of its rules into the international arena (Shaoxue, 2023).

Secondly, being iterative, the Chinese approach is flexible. This flexibility is explained, on the one hand, by the high rate of artificial intelligence development and, consequently, by the rapid changes in the situation, and, on the other hand, by the pragmatism of the Chinese authorities. For example, facial recognition technologies – a subgroup of artificial intelligence technologies – are widely used in public places in China, which has repeatedly caused accusations of violating human rights. The new Regulation on Facial Recognition Technologies, proposed for adoption in 2024, limit the possibility of non-state organizations to use facial recognition for control and require the use of alternative methods of identity verification. The new regulations were drafted with the help of court practice, which is full of examples of Chinese companies held liable and fined for excessive use of these technologies.

The flexibility of the approach is also evidenced by the emergence of elements of comprehensive regulation proposed in the draft Artificial Intelligence Law, which will cover all research and development, supply and use of artificial intelligence within the PRC borders, as well as these activities outside of China if they affect or may affect national security, public interests or the rights of Chinese citizens and organizations. As noted above, this suggests a gradual transformation of the Chinese approach, at least a shift from a sectoral or industry-based approach towards systemic regulation.

Thirdly, China is willing to learn from other actors in global politics; for example, the PRC Personal Information Protection Law of 2021 was drafted after reading and partly

influenced by the European Union's General Data Protection Regulation (GDPR)²⁵, adopted on April 14, 2016 and effective from May 25, 2018.

In addition to the strengths of the approach, the availability of large-scale datasets, which are necessary for effective training of artificial intelligence, should be mentioned. In this aspect, China has a tremendous opportunity due to the availability of data from government surveillance. Researchers from countries competing with China sometimes complain that the authoritarian nature of China's political structure contributes to the quantity and quality of datasets needed for training (Karpa et al., 2022).

Adrawback of the Chinese approach to artificial intelligence regulation is the duplication of norms in various normative legal acts, which is a consequence of sectoral, or even fragmented, regulation. Such duplication is also facilitated by the existence of a number of agencies whose competence is not clearly delineated; hence they claim to regulate artificial intelligence (along with the Cyberspace Administration of China). The powers of state bodies are very broad and usually not specified (Roberts et al., 2023), so some of them seek to contribute to the regulation of the new field. These are primarily state administration bodies, but sometimes also judicial ones. For example, on July 27, 2021, the Supreme People's Court of China issued the provision "On several issues concerning the application of law in the trial of civil cases involving the use of facial recognition technologies to process personal information" ²⁶, effective from August 1, 2021, which applies to civil law disputes arising from the use of facial recognition technology in information processing.

The widespread use of facial recognition technologies in China, on the one hand, helps to ensure order and reduces the risk of committing common crimes, but on the other hand, it infringes on the right to privacy and makes social ranking of citizens possible. Since the system of controlling people's behavior is based on artificial intelligence technologies, the tracking of offenses is automated. For each detected offense a person is awarded points; the more points, the lower the social ranking, which affects the access to jobs, various services, travel and other benefits (Liang et al., 2018). Thus, public interests justify the suppression of individual rights; as a result, the artificial intelligence regulation is aimed not so much at protecting citizens as consumers, but at social control and projection of power²⁷.

Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation). https://clck.ru/34U2FN

²⁶ 关于 审理 使用 人脸识别 技术 处理 个人 信息 相关 民事案件 适用 法律 若干 问题 的 规定. https://clck.ru/38QrVH

Qiu B., & Kwok, D. (2023, December 8). China's tightening grip on AI puts other nations at risk. Nikkei Asia. https://clck.ru/38QrXm

We should not forget about the ideological component of regulation in China, which, in the opinion of some foreign researchers, is a significant drawback of the Chinese approach (Lucero, 2019). However, this does not mean that ideology has no influence on the formation of approaches in other countries. At the same time, the analysis of Chinese social networks shows that, despite the party and state control over the public sphere, "general public has expressed a sense of anxiety towards a future permeated with AI" (Mao & Shi-Kupfer, 2023). Thus, the presence of ideology does not exclude the corrective impact of public discourse on the formation of ethical regulation, under the influence of which legal regulation is built.

3. Comparative analysis of the Chinese approach to artificial intelligence regulation versus other approaches

3.1. Comparison with the European approach to artificial intelligence regulation

In order to better explain the above features, advantages and drawbacks of the Chinese approach, we will compare it with other approaches existing in the world. We will start with the European one, as both of them are much better formed than the positions of the countries that will be discussed further on.

The European Union, like China, claims for the world leadership in artificial intelligence regulation. Their strategies for developing artificial intelligence evolved at roughly the same time. Ethical regulation, perhaps, took shape faster in the European space; the same can be said about the beginning of legal regulation, if we take into account numerous European soft law acts²⁸. Thus, the European Union has gained some advantage, but since it is an interstate entity comprising 27 countries, whose positions often differ and require harmonization, the adoption of European legislation is slower than at the national level (Filipova, 2023).

China, being a unified state, adopts laws and regulations faster. China has already enacted a number of regulations in the field of artificial intelligence, while the European Union's draft Regulation on Artificial Intelligence²⁹, submitted in April 2021 and expected to be adopted by the end of 2022, was still not adopted a year later. On December 8, 2023, the European Council and the European Parliament reached a preliminary agreement on the draft. Even after the European Parliament, the European Council and the European Commission approve the agreed draft in 2024, it will still take two years before the EU Regulation on Artificial Intelligence becomes applicable, i.e. it will not enter into force

The first soft law act was the European Parliament Resolution of 16 February 2017 with recommendations to the Commission on Civil Law Rules on Robotics (2015/2013(INL); on artificial intelligence regulation in the European Union see: Filipova, I. A. (2023). Artificial intelligence: European approach to regulation. Journal of Foreign Legislation and Comparative Law, 19(2), 54–65.

^{(2021,} April 21). Proposal for a Regulation of The European Parliament and of the Council Laying Down Harmonised Rules on Artificial Intelligence (Artificial Intelligence Act) and Amending Certain Union Legislative Acts.COM/2021/206 final. https://clck.ru/38QrYw

until 2026. It is worth specifying that certain provisions will become effective sooner, for example, the prohibitions on unacceptable risk models will apply after six months.

The EU General Regulation on Personal Data Protection adopted in 2016 managed to play the role of a global model, which most countries began to follow when creating their own legislation in this area (it influenced China, the United States, and other countries). However, the European Union Regulation on Artificial Intelligence is unlikely to play the same role in the field of artificial intelligence regulation, including because China has surpassed the European Union in creating legal regulation.

The carefully developed European approach is comprehensive; it provides for "horizontal" regulation, where one normative legal act covers a wide range of issues, it applies to virtually all types of artificial intelligence and all areas in which it is involved. In China there is branch, sectoral, or "vertical", regulation, when numerous acts are adopted, each establishing rules on a fairly narrow range of issues. A distinctive feature of Chinese legislation, "contrasting with the European legal tradition, is the wide discretion of public authorities, which may implement extremely significant regulation and establish a lot of exceptions and exemptions in their bylaws"³⁰.

The peculiarity of the European model of artificial intelligence regulation is that it is risk-oriented. The established approach is based on risk assessment and provides for the allocation of four groups depending on their level: unacceptable, high, moderate and minimal risks. The criteria for determining the level of risks from the use of artificial intelligence are the area and nature of this use. For example, the unacceptable risk group includes artificial intelligence systems that pose a threat to the security of citizens and their rights (in particular, allowing governments to conduct "social ranking" and biometric identification in public places). The high risk group includes artificial intelligence systems used in critical infrastructure, healthcare, law enforcement, and so on.

The draft Artificial Intelligence Law of the People's Republic of China, although still unofficial, shows the potential for transforming the Chinese approach. It may make it more systematic in regulating artificial intelligence, as well as gaining elements of a risk-oriented approach, which implies differentiation of regulation depending on the risk level. Such differentiation is evidenced, for example, by the content of Article 43 of the draft Artificial Intelligence Law of the People's Republic of China, which establishes stricter supervision over "basic models" of the artificial intelligence, i. e. the models trained on big data and used in various Al products (Zhang, 2023). This suggests that China is learning from the European experience.

Sadovnikov, D. (2021, September 17). Review of the Personal Information Protection Law of the People's Republic of China (PIPL). Zakon.ru. https://clck.ru/38Qrag

An important difference between China's AI development strategies and those of the EU is that in Europe, the policy debate over AI regulation are driven primarily by its widespread adoption and the desire to control the likely harmful effects of its use (Cath et al., 2018). In China, however, the starting point was the desire to fulfill the artificial intelligence potential. In other words, while the European Union was initially concerned with harm reduction, China was concerned with the prospects for innovation (Zeng, 2020). By now, however, this distinction has begun to fade, as the Chinese government is now paying serious attention to the issue of possible harm³¹.

As for the protection of basic human rights, the European approach is much more focused on this than the Chinese approach. It is precisely because of the priority of these rights that the European Union's approach is rigid and partly hinders innovation. The model based on the Chinese approach is more focused on promoting innovation for the sake of national and public goods (Roberts et al., 2023), while the individual rights are less important. In this context, it is understandable why "social ranking" based on facial recognition technology is acceptable under Chinese law. Nevertheless, even Western observers note that "coupled with new regulations on generative models, China is demonstrating more nuanced oversight – though still favoring pragmatic balance over hard limits on innovation"³².

So, while the European approach is inherently "horizontal", rigid and risk-oriented, the Chinese approach is inherently "vertical", flexible and, due to the latter quality, more capable of transformation.

Despite the difference in approach, China and the European Union are trying to dialog on technology regulation. The first "high-level digital dialog" took place in 2020, and the second in September 2023, when the topic of artificial intelligence regulation and cross-border data flows was raised. As a result of the next round of dialogue, the parties agreed to promptly exchange information on unsafe products sold over the Internet, and to organize regular seminars to familiarize each other with legislative updates and best practices³³.

3.2. Comparison with the American approach to artificial intelligence regulation

As was mentioned above, while China today is inferior to the United States in terms of artificial intelligence development, in terms of the pace of development it surpasses all countries in the world. The degree of development of American legal regulation in the field

³¹ Sun, X. (2022, April). Decoding China's "common prosperity" drive. https://goo.su/FBDTqy

Au, A. (2023, October 19). China vs US Approaches to Al Governance. The Diplomat. https://clck.ru/38Qrem

European Commission. (2023, September 18). EU-China: Commission and China hold second High-level Digital Dialogue. https://clck.ru/38Qrfg

of artificial intelligence lags behind China and the European Union. In the USA there is still no integral national legislation on artificial intelligence, but a "patchwork quilt" of various normative acts. The main of them as of the beginning of 2024 are two federal laws and three orders of the US President:

- National Artificial Intelligence Initiative Act of December 28, 2020³⁴, aimed at ensuring US leadership in artificial intelligence research and development, preparing the US workforce to integrate artificial intelligence systems into all economy sectors, and coordinating civilian and military research and development;
- Artificial Intelligence Training Act, pursuant to the Acquisition Workforce Act,
 No. 117-207 of October 17, 2022³⁵;
- Executive Order 13859 of the President of the United States, dated February 11, 2019, "Maintaining American Leadership in Artificial Intelligence"³⁶, which was the first to present the US strategy for AI development;
- Executive Order 13960 of December 3, 2020, "Promoting the Use of Trustworthy Artificial Intelligence in the Federal Government" ³⁷;
- Executive Order No. 14110 of October 30, 2023, "On the Safe, Secure, and Trustworthy Development and Use of Artificial Intelligence" which established standards to protect against potential risks of artificial intelligence.

There are also programmatic documents that are not legally binding, such as the AI Bill of Rights³⁹, published in 2022, which is a statement of principles highlighting key values in relation to the proliferation of AI.

Regulatory uncertainty in this area persists, and many bills introduced in the U.S. Congress have been rejected, such as the draft laws on deepfakes, artificial intelligence in government, and its use in the workplace. In the near term, several new bills have a chance to be passed, but they will also address specific issues: algorithmic bias, data privacy, and protection against misinformation generated by artificial intelligence.

³⁴ H.R.6216 – National Artificial Intelligence Initiative Act of 2020. https://clck.ru/38Qrgs

Artificial Intelligence Training for the Acquisition Workforce Act or the Al Training Act Law No. 117-207. (2022, November, 17). https://clck.ru/38QvAo

Maintaining American Leadership in Artificial Intelligence. Executive Order No. 13859. (2019, February 11). https://clck.ru/38Qrhw

Promoting the Use of Trustworthy Artificial Intelligence in the Federal Government. Executive Order No. 13859. (2020, December 3). https://clck.ru/38Qrix

WH.gov. (2023, October 30). Executive Order on the Safe, Secure, and Trustworthy Development and Use of Artificial Intelligence. No. 14110. https://clck.ru/38Qrju

³⁹ WH.gov. Blueprint for an Al Bill of Rights. https://clck.ru/38Qrm3

All of the above confirms that the American approach to artificial intelligence regulation is inferior to the Chinese and European ones, as it demonstrates extreme fragmentation of legal regulation. The development of American legislation lags behind Chinese and European legislation by at least 1–2 years. The legislation of some states, for example California, is being formed faster, but the acts adopted at the state level also demonstrate the lack of a comprehensive approach. A number of initiatives give grounds to say that the level of potential risk of different models of artificial intelligence will be taken into account when creating legal regulation⁴⁰, i.e. the risk-oriented approach inherent in European regulation is likely to be adopted by the American approach as well.

According to the generalized classification of approaches proposed by N. Petit, all approaches are divided into two subgroups – legal and technological. The influence of American IT giants, such as Amazon, Google, OpenAI, etc., on artificial intelligence regulation contributes to the formation of a technological approach in the United States, while maintaining the regulation specificity. At the same time, U.S. Executive Order No. 14110 of October 30, 2023, "On the Safe, Secure, and Trustworthy Development and Use of Artificial Intelligence" covers the issues of artificial intelligence much more comprehensively than the previously issued acts, promoting the creation of a comprehensive regulation inherent to the legal approach. The key provisions of this act require specific actions by technology companies and federal agencies. For example, developers of powerful artificial intelligence systems are obliged to share the results of their security checks with the U.S. government.

The further spread of generative AI and the adoption of the European Union's Regulation on Artificial Intelligence in 2024, as well as the emergence in 2023-2024 of new regulations governing specific AI issues in China (plus work on an AI Law), will stimulate the development of legal regulation in the United States. Many experts point out that 2024 will be a landmark year for the country in this respect: a series of legislative proposals have been submitted to the U.S. Congress.

We can sum up that the European and American approaches are closer in their understanding of human rights due to their belonging to the same, so-called Western civilization. The Chinese approach to artificial intelligence has fundamental differences from the European and American ones; the reason is the conceptual difference in worldviews and the divergent socio-cultural characteristics, which cannot but be transmitted by law. However, the Chinese and American approaches share the unwillingness to sacrifice the opportunities for innovative development, so the US approach is even more cautious than the Chinese one and much softer than the rigid European one in creating regulation. As a consequence, some Chinese scholars have suggested that China's approach should be called neutral (Li, 2023), although it may be more logical to speak of moderation.

European Commission. (2023, May 31). EU-U.S. Terminology and Taxonomy for Artificial Intelligence. https://clck.ru/38Qrmi

Despite the rivalry between the United States and China in the race for leadership in artificial intelligence, the same concern for the consequences of uncontrolled use of technology is common to all. This does not exclude some convergence between the different approaches, provided they are flexible enough. Attempts to harmonize approaches are being made at the international level. For example, on November 1, 2023, the Bletchley Declaration was signed, recognizing the international nature of risks and committing to cooperate in the search for a universal approach to the responsible use of artificial intelligence. The Declaration was signed at the first global Al Safety Summit by representatives of 28 countries, including China, the United States and European Union member states.

3.3. Comparison with the approaches of the leading Asian countries to artificial intelligence regulation

Now it is time to compare the Chinese approach with artificial intelligence regulation emerging in other Asian countries leading in technology development. It should be emphasized that, while the belonging of countries to the Western civilization does not mean close proximity of emerging approaches, as we may see by the example of the United States and the European Union, in the case of Asian countries it is even less justified to hope for a common approach within the framework of a single civilization model due to the absence of the latter. Below we consider the examples of Japan, South Korea and Singapore, these countries often being mentioned in scientific articles as arousing research interest (Dremliuga, 2022; Kubota, 2023; Shakhnazarova, 2021).

Japan is taking a soft approach to regulating AI in order to stimulate economic growth. The country aims to strengthen its position in the ranking of AI-friendly jurisdictions. In 2019, Japan published the Social Principles for Human-Centric AI⁴², forming the basis of Japanese policy in this area. In 2021, Japan's Ministry of Economy, Trade and Industry published a report on artificial intelligence management in which "legally binding horizontal requirements for artificial intelligence systems"⁴³ were deemed unnecessary for the time being. This is due to the difficulty of creating regulations that match the speed and complexity of AI innovation, while static and detailed regulations can stifle innovation.

In April 2022, Japan's Cabinet Council for the Promotion of Comprehensive Innovation Strategy published the Artificial Intelligence Strategy 2022. A year later, in April 2023, the Artificial Intelligence Development and Implementation Project Group of one

⁴¹ Gov.UK. (2023, November 1). The Bletchley Declaration by Countries Attending the Al Safety Summit, 1–2 November 2023. https://clck.ru/38Qro5

Social Principles of Human-Centric AI. (2019). https://clck.ru/38QrpG

Expert group on how AI principles should be implemented. (2021, July 9). AI Governance in Japan. Version 1.1. https://clck.ru/38Qrg8

of Japan's leading parties (Liberal Democratic Party) published a proposal titled "White Paper on Artificial Intelligence: Japan's National Strategy for the New Age of Artificial Intelligence", which recognizes a significant impact of large language models, including ChatGP, on the society and emphasizes the need to develop a new national strategy. In the spring of 2023, the Japanese government established the Artificial Intelligence Strategic Council and the Artificial Intelligence Strategic Group to formulate an updated national Al strategy.

In general, Japan welcomes flexibility in the regulatory approach by combining voluntary efforts by companies to manage AI with providing non-binding guidance for such efforts by government agencies. Japan is trying to elaborate certain rules aimed at increasing the positive AI impact on the society without hindering technology development due to "overestimated risks" 44.

A similar approach is adopted in Singapore, where there is also no specific legislation in place yet. In 2019, Singapore announced its national strategy, similar to China's, aimed at achieving leadership in artificial intelligence by 2030. Following the strategy approval, Singapore launched national AI projects in five areas recognized as critical in terms of socio-economic impact: logistics, municipal services, personalized learning, prediction and treatment of chronic diseases, and border control.

The Singapore government has repeatedly emphasized the importance of responsible use of artificial intelligence, and national agencies are issuing policy documents on the practical application of artificial intelligence. For example, in 2023, a document entitled "Generative AI: Implications for Trust and Governance" was published, which identifies six risks and six ways to manage the risks⁴⁵.

As we can see, neither Japan nor Singapore consider it necessary to force the adoption of laws on artificial intelligence, which distinguishes them from the European Union and China. However, given the rigidity of the European approach, European regulation is the least consistent with the approach of these countries, while the American approach is noticeably closer.

One more example is South Korea, another technologically advanced country in Asia, where the issue of establishing legal regulation of artificial intelligence is on the agenda. In February 2023, the Korean Parliament's Committee on Science, Information and Communication Technology, Broadcasting and Communications approved a bill on the development of the artificial intelligence industry and the framework for

Habuka, H. (2023). Japan's Approach to Al Regulation and Its Impact on the 2023 G7 Presidency. Washington. Center for Strategic and International Studies. https://goo.su/yqfL

⁴⁵ Generative Al: Implications for Trust and Governance. (2023). https://clck.ru/38QrsQ

a trustworthy artificial intelligence⁴⁶. The vote on the bill was scheduled as early as 2023, but was delayed due to political difficulties before the general election in April 2024.

The proposed law is intended to provide a framework to comprehensively regulate the artificial intelligence industry in South Korea. Like the draft European Union Regulation on Artificial Intelligence, it takes a risk-based approach, identifying "prohibited risk", "high risk", and "low risk" groups of artificial intelligence systems (Article 2), while proclaiming the principle of "priority authorization and subsequent regulation" for the development and use of artificial intelligence (Article 5).

In addition, South Korea has the Intelligent Robots Development and Distribution Promotion Act dated March 28, 2008⁴⁷, which is largely responsible for making the country one of the world's top 5 robotics manufacturers by 2020. The level of robotization of production and services in South Korea is one of the world highest. Continuing to compete with global leaders, South Korea is striving to surpass all others in the field of robotics. In 2023, the law was amended to increase the level of localization (volume of the local production of components) by relaxing the requirements for companies specializing in intelligent robots⁴⁸. It is evident that the Korean approach shares some common features with the European one by taking into account the risk level to differentiate the regulation of artificial intelligence, but is less restrictive and, like the Chinese approach, more innovation-friendly.

Conclusions

Having traced the China's path of development of artificial intelligence legal regulation, we can state that China was the world first country to enact regulations governing the artificial intelligence industry, thus confirming its claims to leadership in this field.

The regulation responsiveness allows removing a number of issues debated within the Chinese society, or, at least, adjusting the agenda. The iterative nature of regulation allows for a gradual, step-by-step process of improving regulation, eventually defining the "rules of the game" necessary for business and society to increase trust in Al. By rapidly increasing regulation, China is "creating a foundation for Al exports across the Global South and countries participating in its Belt and Road Initiative" ⁴⁹.

China's approach to AI regulation is sectoral, like the American one; although, similar to the European one, it is much more elaborate than the US approach. The Chinese approach

⁴⁶ 인공지능 책임 및 규제법안. https://goo.su/JMr7Y

Intelligent Robots Development and Distribution Promotion Act No. 9014, March 28, 2008. https://clck.ru/38QrvC

⁴⁸ 새해, 주목할 만한 Al.ICT 관련 법개정 또는 입법(2-①). https://clck.ru/38Qrvs

Heath, R. (2023, May 8). China races ahead of U.S. on Al regulation. https://clck.ru/38Qrwa

can be called flexible, unlike the European one, which is characterized by rigidity and therefore inhibits innovation. The flexibility allows China to promote the artificial intelligence development rather than hinder it by setting up barriers for developers. However, this does not mean that there are no barriers in China; they do exist and relate to the observance of socialist values (ideological barriers).

Nevertheless, China, like other actors of world politics, supports interstate cooperation and advocates convergence of approaches within the frameworks of what is feasible. It is the pragmatic nature of the Chinese approach that allows stating its influence on the legal regulation being created in other countries, along with the influence of the European Union, which is limited due to the strictness of its approach. In turn, the Chinese approach is likely to be somewhat transforming over time, taking into account the European experience of regulation. This can be seen in the sprouts of systematicity manifested in the Chinese draft Al Law.

To summarize, we can conclude that the interest in the studies of the Chinese experience of artificial intelligence regulation will increase, as 2024 and 2025 will face a rapid growth of regulation in this area due to the surge of generative artificial intelligence development and the emergence of much more complex models of other types of artificial intelligence, opening new opportunities, but also provoking the emergence of new problems.

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Правовое регулирование искусственного интеллекта: опыт Китая

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Ключевые слова

генеративный искусственный интеллект, законопроект, закон, искусственный интеллект, итеративность, комплексный подход, отраслевой подход, право, риск-ориентированность, цифровые технологии

Аннотация

Цель: проследить траекторию развития правового регулирования в сфере искусственного интеллекта в Китайской Народной Республике, выявив достоинства и недостатки китайского подхода к регулированию искусственного интеллекта и обозначив перспективы национального регулирования на ближайшее будущее с учетом мирового опыта.

Методы: в основе исследования лежат общенаучные методы анализа и синтеза, классификации, системный и функциональный подходы. Также использовались формально-юридический, сравнительно-правовой и историко-правовой методы.

Результаты: проведенное исследование демонстрирует обоснованность китайских притязаний на мировое лидерство в создании правового регулировании искусственного интеллекта, так как именно в Китае приняты первые, уже вступившие в силу нормативные правовые акты, правда, каждый из них касается узкого круга вопросов, пока отсутствует закон, который бы устанавливал некоторые общие правила для индустрии искусственного интеллекта. Среди характерных черт китайского подхода, в первую очередь, названы его итеративность, позволяющая с каждым новым шагом корректировать регулирование, и отраслевой характер регулирования.

Научная новизна: в процессе исследования выделены и описаны этапы развития правового регулирования искусственного интеллекта в Китае, выявлены и аргументированы достоинства и недостатки китайского подхода к правовому регулированию, произведено сравнение данного подхода с подходами основных соперников Китая, конкурирующих с ним по уровню развития технологий и по уровню их правового регулирования. Все вышеперечисленное позволило прийти к выводам относительно последующего развития правового регулирования в Китае и в мире в целом.

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Статья находится в открытом доступе и распространяется в соответствии с лицензией Creative Commons «Attribution» («Атрибуция») 4.0 Всемирная (СС ВУ 4.0) (https://creativecommons.org/licenses/by/4.0/deed.ru), позволяющей неограниченно использовать, распространять и воспроизводить материал при условии, что оригинальная работа упомянута с соблюдением правил цитирования.

Практическая значимость: ознакомление с материалами исследования дает возможность интересующимся правоведам, и не только им, получить четкое представление о достигнутом Китаем уровне регулирования в сфере искусственного интеллекта. Опыт Китая представляет значительный интерес для остального мира, позволяя убедиться на практике в правильности или ошибочности возможных вариантов регулирования в новой и сложной области. Результаты исследования могут быть использованы не только в практике правового регулирования в сфере искусственного интеллекта, но и при подготовке лекций по учебным курсам соответствующей направленности, создании учебных пособий для студентов-юристов.

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