Legal Issues in the Digital Age. 2025. Vol. 6. No. 1.
Вопросы права в цифровую эпоху. 2025. Том 6. № 1.

Reviews

Review
JFL: K1
UDK: 340
DOI:10.17323/2713-2749.2025.1.124.148

Artificial Intelligence and Law: From Theory to Practice

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Abstract

On October 18, 2024 the XIII International Scientific and Practical Conference “Law in the Digital Age” was held at the Faculty of Law of the Higher School of Economics (HSE). This year it was devoted to the topic of artificial intelligence (AI) and law. It was considered from the standpoint of both private and public law. The conference

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covered the issues of the civil law regime of artificial intelligence technologies and objects created with its use, artificial intelligence and intellectual property law, as well as the topic of generative content and protection of the interests of copyright holders. The topic of regulation and self-regulation of artificial intelligence, including artificial intelligence in Legal Tech, is highlighted. Introduction of Artificial Intelligence Technologies in Labor Relations: Successes, Failures, Prospects Criminal Law Protection of Digital Economy and Finance Entities Using Elements of Artificial Intelligence. Thus, the conference attempted a comprehensive discussion of the role of law in the development of AI technologies. This approach made it possible to show the relationship between the methods of legal regulation in this area, their interaction to create conditions for the development of AI technologies. The conference raised both practical and theoretical issues of the development of law in the new conditions, as well as the problems of the development of legal education.

Keywords

generative artificial intelligence; law; digital technologies; civil law regime; labor law; public law; criminal law.

For citation: Bogdanovskaya I.Yu., Danilov N.A., Egorova E.V., Kalyatin V.O., Karpenko O.I., Salikhov D.R., Vasiakina E.V., Volos A.A. (2024) Artificial Intelligence and Law. *Legal Issues of the Digital Age,* vol. 6, no. 1, pp. 124–148. DOI:10.17323/2713-2749.2025.1.124.148

1. In opening the XIII International Research Workshop "Law in the Digital Age", **V.A. Vinogradov**, Doctor of Sciences (Law) and Legal Department Dean, HSE, has noted that its main purpose was to exchange the best practices and knowledge in the field of law and digital change, with more than 350 researchers from Russia and other countries (Uzbekistan, Kazakhstan, Belarus, South Africa, Brazil, India, China) having applied to take part in the workshop. **V.A. Vinogradov** has thanked the participants for their desire to be involved in this already traditional research event and wished them fruitful work.

I.Yu. Bogdanovskaya, Doctor of Sciences (Law), Tenured Professor, Editor-in-Chief of the journals *Law. Journal of the Higher School* of *Economics* and *Legal Issues in the Digital Age*, has noted that the workshop annually handled legal issues most relevant to the digital age, its main topic this year is *AI and Law*. While the workshop was undoubtedly multidisciplinary, lawyers were proposed to discuss at this stage the legal aspects and development prospects.

Artificial intelligence (AI) permeates different aspects — from fundamental issues of legal understanding to legislative development. On

the one hand, artificial intelligence has not resulted in a change of legal paradigm, normativism still predominant in its assessment. But the traditional formal logical approach comes to be supported by technological approach believed to improve the efficiency of the legal system. The issues of legal personality and liability, categorical system, traditional for positive law, are gaining relevance. On the other hand, the question is about further development of traditional legal principles (such as the rule of law) in the AI age. The workshop is called upon to find out whether legal conditions for AI development are being created and how AI affects the legal profession as a whole, legal education and standards of legal studies.

The plenary meeting was moderated by **A.V. Neznamov**, Managing Director, Center for Human-Centric AI Regulation at Sberbank.

In his report *Weighted approach: maintaining an enabling environment for AI development*, **S.S. Kalashnikov**, Head, IP/IT legal issues, Yandex, has identified two approaches to AI worldwide: comprehensive normative regulation (China) and regulation/self-regulation mix (in most other countries). The emerging technology ensures the competitive edge of domestic solutions, with the normative regulation to be introduced where it is clear how it will affect the technology. Meanwhile, it is important to encourage the development of sectoral rules.

B.A.Yedidin, Deputy General Director for Legal Issues, Internet Development Institute (IDI), has discussed the *AI's practical and legal aspects for web content creation*. Based on the study of other countries' copyright law, he has identified the trends to deny AI registration as an author/inventor, as well as those to dismiss claims for lack of proof in the event of similarity between the original and AI-generated image or in the event of damage. With regard to deep fakes, there is a trend for the need to seek consent, as well as prohibition to use deep fakes for political, fraudulent and pornographic purposes. AI content labeling regulation in China and EU was specifically discussed.

M.I. Takhaviev, Project officer, Big Data Association, has dwelled on *AI learning data availability and safety*. While noting legislative innovation, he discussed the risk assessment methodology of the Big Data Association. The data leakage model assesses the risk of confidential information leakage from anonym data, as well as probability of identifying or recovering primary data from anonym data sets. The customer data processing risks can (and should) be measured for each specific business case. Available techniques and technologies allow to reduce

re-identification risks down to almost zero even where primary data is used. The use of confidentiality enhancing technologies occupies the grey zone where regulation lags behind their progress. With a risk assessment model established and trusted intermediaries regulated, AI learning data will become more readily available and an adequate level of confidentiality will be maintained.

S.A. Makhortov, Head of legal practice at the Radio Frequency Regulation Center, has discussed *Generative AI's risks, challenges, development and regulatory prospects*.

In his report *Concept of a system of coherent subjective rights of man and AI*, **Yu.M. Baturin**, Russian Academy of Sciences corresponding member, Doctor of Sciences (Law) has proposed to abandon the track of apparently unpromising discussion on whether AI could have a number of subjective rights, and to consider instead the *man-AI* pair from the perspective of very large (complex) systems with collective behavior of constituent parts, that is, coordinated (coherent) action within the said pair exercised via the roles assumed by each one. By doing this, we can drop the customary pattern "subject A's right is matched by subject B's duty and vice versa" and discuss "AI rights" as coherent to those of human operator and exercised via the latter. AI's role duties encourage team work with human operator like in sports or ballet where coherent interaction is so harmonious that player's right to pass a ball or dancer's right to take a step cannot be challenged. In a way, regulation of specific interactions resembles the Confucian tradition in the Eastern law where the ritual *li* (role duty in AI case) functions along with the law *fa,* with *li* controlling and *fa* assisting with control; *li* and *fa* complement each other by allowing to accentuate now *li*, now *fa*; *li* ensures harmony while *fa* restores broken harmony.

This approach is doubtless largely different from the Western (and Russian) legal principle whereby "I respect your right and do not trespass unless your right is contrary to mine". As a matter of conclusion, instead of attempting to regulate the use of and interaction with such complex thing as AI along the lines of legal tradition, it would be reasonable, as an option, to adopt the principle of respecting AI's role duties in its interaction with man. It is feasible to regulate coherent rights and role duties via the development of collaboration standards between AI and man.

At the plenary meeting, the national approaches to the issue "AI and Law" were discussed.

In discussing the *Legal principles of using AI technology: the experience of Uzbekistan*, **A.Kh. Saidov**, Academician of the Academy of Sciences of the Republic of Uzbekistan, Doctor of Sciences (Law), Professor, Deputy of the Legislative Chamber of the Oliy Majlis of the Republic Uzbekistan, has noted that discussion of cross-cutting and multidisciplinary issues had gained theoretical and practical/regulatory value both in Uzbekistan and Russia: optimal AI regulatory models; proposals of AI model codes; AI's place within the national legal system; legal response to AI-related threats and risks; introducing AI to legal education, regulatory drafting and enforcement; legal framework dynamics for AI creation and use: practices approved by countries and international institutions — UN, EU, CIS, SCO etc.; prospects of developing global legal standards for AI development and usage; impact of AI public law implementation on legal awareness, legal culture of individuals and communities, cognitive basis of law and order; development of AI conceptual basis in accounting for specific regulation of AI technology and its impact on legal understanding, regulatory drafting and enforcement.

To create a legal framework for introducing AI in public law, social sector and national economy, and making Uzbekistan one of the world's advanced countries in terms of AI use, it is proposed to establish the notion of "artificial intelligence" in national legislation; define a tentative list of "digital human rights"; legislatively enshrine the principle of human rights for Internet users and non-discrimination in the digital space; enshrine the concept of digital gap (including gender-related); enshrine the principle of cultural diversity in the digital space; and enshrine the concepts of "cyber-violence" and "cyber-bullying".

S.G. Cornelius, Professor, University of Pretoria, South Africa, described the *Comparative prospects of future law at the time of AI*. He has noted that jurisdictions worldwide were attempting to cope with AI regulation in focusing on liability, protection of consumer rights, data security and intellectual property, as well as market regulation. The regulatory authorities will have to take into account AI's purpose for human progress; its safe and ethical development for the avoidance of technological colonialism, lower human risk and impact; as well as regulation of intellectual property, industrial relations, health, law enforcement practices and military applications.

C. Lucena, Professor, Center for Legal Studies, Paraiba State University of Brazil, has explained the specifics of legal approach to AI in Brazil. Currently, AI is governed in Brazil by legislative provisions con-

cerning elections and data security, with further regulation across various spheres being proposed. There is a need to reduce AI-related risks and possible negative impact on the basis of safer, more ethical and reliable development of these technologies.

R. Soni, Associate Professor, Center for the Study of Law and Governance, Jawaharlal Nehru University, Deli, India, has noted a need to build user confidence, enhance data security, maintain transparency, accountability and compliance in order to guarantee ethical use of technologies, support innovation and reduce risks. India is taking vigorous steps to regulate AI by passing the new Digital Personal Data Protection Act (DPDP) and pursuing the AI-related governance project. Thus, India is putting in place a framework for AI development, protection of data and human rights, and promoting innovation.

In conclusion, **A.A. Skovpen**, Senior lawyer on intellectual property at Nestlé, has discussed the *Comparative analysis of approaches to generative outcomes and TDM rights protection*.

2. At the panel **Civil law regime applicable to AI technologies and AI-enabled objects** moderated by **A.A.Volos**, Candidate of Sciences (Law), Associate Professor, HSE, researchers and legal practitioners presented their reports, with panel participants discussing a variety of issues: compensation for AI-related damage, legal concepts of authorship regarding AI-assisted works, personal data protection, confidential data processing, AI use for the purpose of inheritance and corporate law.

D.A. Kazantsev, Senior Expert, Greenatom, ROSATOM State Corporation, has made a presentation *AI delictual capacity: fiction or requirement?* He has noted rightly that with the use of AI-controlled robots in everyday life the problem of liability including regulation of obligations in the event of AI-related damage had moved from theory to practice. From the perspective of current regulatory development, on the one hand, and technologies, on the other hand, we cannot conceive AI as a legal entity, let alone the one with delictual capacity. Today delictual responsibility can be assumed only by legal entities that control AI action in any way, that is, developers, owners, users, etc. With an optimal model for allocation of subsidiary responsibility between them yet to be developed, this is unlikely to require new legal institutions: adjustments in this area could be almost for sure restricted to efforts to complement and specify the existing civil law provisions. However, the fact that AI is now deprived of delictual capacity does not mean it will be so in the near or distant future. The legal profession should be ready now to con-

ceptualize, substantiate and integrate legal provisions regulating operations and responsibility of new legal entities — those endowed with non-human consciousness.

In their collective presentation *Legal concept of authorship with regard to AI-assisted works*, **E.V. Zainutdinova**, Candidate of Sciences (Law), Associate Professor, Institute of Philosophy and Law, Novosibirsk State University, and **K.V. Sergeeva**, Manager of legal projects at Catrix LLC, discussed both the theme of copyright to the works created by generative AI models and current copyright concepts. They have presented summary conclusions on relevant enforcement practices and regulations effective in EU and elsewhere, as well as on the latest regulations in force in Russia in the area under study. They have formulated conclusions on legal aspects of "input" and "output" content as applied to AI. In the context of creative work, the software owner's and user's exclusive rights and copyright to AI-assisted output were discussed. In their presentation, the authors used images created through the use of AI.

A.A. Ambros, Head of legal support of corporate procedures and investment projects at Vkusvill, and **K. Kuzhanova**, his Deputy, discussed confidential data processing issues in the presentation *Confidential information (including personal data) processing problems at the data collection and instruction stage of neural network learning in automated contracting systems*. It was noted that confidential data disclosure issues occurred at the AI output stage when a neural network trained on confidential data would accidentally/unintentionally disclose such data in response to a request. Thus, when neural networks are trained on confidential data, they can "memorize" and reproduce data fragments. For instance, a neural network trained on a customer database can accidentally read out personal data in response to a similar request. As a possible solution, the speakers proposed to use regularization for lower probability of memorizing specific data, and to introduce stricter procedures for request management and output checkup.

As for the panel's main conclusions, it should be underlined that speakers and listeners shared in the opinion that the use of AI-produced decisions and outcomes would result in a number of problems, only to require changes to the regulatory framework and improvements to legal and business practices. It is these situations that highlight a need for changes to the regulatory framework, and for case-by-case establishment of rights and duties of AI users. Thus, regulation of relationships should not be focused, from the perspective of private law, on AI it-

self — for instance, it is unreasonable to struggle with definitions, attributes and regulation of relationships involving AI. It is more important to focus the new law and practice on the stage of using AI-produced decisions and outputs.

3. The first presentation of the panel **Artificial intelligence and intellectual property right** was devoted to a general question of a link between the two. **E.R. Valdes-Martinez**, Senior Teacher, HSE, UPRAVIS Association Director, has noted that AI permeated today all spheres of human activity undoubtedly including intellectual property. However, experts are divided as to the means, mechanism and structure of AI regulation in this domain, primarily because the established system of provisions governing intellectual property is aimed largely at protecting man's (not machine's) creative products. The World Intellectual Property Organization's position in this regard is straightforward: AI has nothing to do with intellectual property as regards regulation. Such approach, however, does not bring us any nearer to solution. What could be currently observed is the practice of the existing legal constructs of intellectual property ranging from text and data mining (EU) to fair use doctrine (United States) being applied to AI.

Developing this subject, **M.Yu. Proksh**, Chairman, IP Chain Association, has told in his presentation to what extent the protected intellectual assets could be used for machine learning. Creating and improving AI requires to use lots of intellectual property assets owned by other persons, only to conflict with intellectual property law. The question is how the regulation applicable to creation and use of intellectual property assets should evolve in the current social context. The speaker specifically has discussed the theme of AI-created intellectual property assets being exempt from legal protection, with the current doctrine protecting only those created by man. However, this practice is threatening human creativity since, where a machine-made product meeting minimal requirements is available for free, hardly anybody will be willing to pay for a man-made one, except in the event of niche applications.

In her presentation **M.A. Kolzdorf**, Senior Teacher, HSE, consultant, has noted that datasets for AI learning could be counted as copyrightable assets. Making a dataset normally involves creating copies of works, only to affect the right to reproduce. Under the general rule, one has to seek authors' consent to use such works. In the speaker's opinion, cases of free use are currently not enough to support legal AI learning. Once a new restriction of exclusive right is added to Part 4 of the Civil Code of

Russian Federation (hereinafter — the Civil Code), one will have to observe a three-stage test established by Article 9 (2) of the Berne Convention. Such restriction should probably depend on AI model (generative, predictive etc.) and impact on author's royalties (whether the outcome will compete with the original work). The speaker also has noted that establishing the fact of unauthorized use of copyrighted assets for AI learning was now problematic ones, unless AI operators themselves decided to report the use of certain data (for instance, music of a band), with AI-produced outcome reflecting parts of such works.

I.L. Litvak and **S.Yu. Lagutin**, testers of CSD HSE developer team (MIFT and RANE), shared valuable experience of using learning datasets to create AI that efficiently analyzed legal cases and helped to prepare for trial. This project is a major step forward to openness and availability of legal information. The content being prepared is distributed under GPLv3 free license, something that allows all parties concerned to study, modify and disseminate datasets for free, as well as to learn the underlying methodology.

O.A. Polezhaev, Associate Professor, RSPL, Kutafin State University, has discussed the problem of AI widely used for creative purposes. In this regard, a discussion of the procedure for protecting human intellectual outcomes was analyzed. It was noted that lower protection criteria coupled with the admissibility of copyright protection of AI-assisted creative outcomes significantly undermined both the stability of civil law transactions and efficient regulation of the relations in question. In the speaker's view, while AI outcomes could be monopolized by creators or users, relations of appropriation of such outcomes should not rely on copyright law in general and exclusive rights in particular.

I.N. Sarapkin, Information Relations Department of Moscow City, has described in his presentation AI's impact on legal relationships involved in formalization and transfer of rights to computer software including in the context of procurement. He has raised the issue of correlation of the legal regime governing software and literary works highlighted by the importance of new technologies, as well as the issue of divergence between legal regulation and real social relationships in this area. As a possible solution, it was proposed to assess the regulatory practices from the perspective of a search for new approaches beyond the authorship-copyright paradigm.

The presentation triggered active discussion and requests for clarification, as well as proposals to formalize the transfer of rights to intel-

lectual assets along the lines of the regime applicable to digital financial assets. The participants were also invited to complete an online questionnaire on the subject, with its outcomes to be used for shaping new approaches to legal regulation in this area.

In her presentation **R.Sh. Rakhmatulina**, Associate Professor, Financial University under the Government of Russia, has dwelled on the aspects of using AI for design. AI can perform a large part of work involved in designing new products and, while providing new opportunities, creates the risk of contending the rights to design works to be accounted for when using AI in the field.

V.O. Kalyatin, Candidate of Sciences (Law), Associate Professor at the HSE, Professor, Alexeyev Center for the Study of Private Law under the President of Russia, has discussed the theme of intersection between private and public law in regulating AI involved in creation and use of intellectual property. Creating and improving AI requires large-scale use of someone's intellectual assets, thus prompting a need in special exemptions. Since AI is often used in this area for a public good, one can assume that provisions will be interpreted to encourage the use of the underlying intellectual assets. Finally, enormous problems follow from practical difficulties of identifying faked objects created with AI help by which society is so easily misled. It was concluded that in the context of conflict between private use of intellectual assets and their public implications, the intrusion of public law provisions into AI-related private relationships was inevitable.

The panel concluded with a presentation by **Van Bod**, Postgraduate Student, Moscow State University, describing the peculiarities of cross-border/international exchange of AI-related intellectual assets — like challenges, risks and mechanisms for protection of entrepreneurs' rights exemplified by China and Russia. The speaker has pointed out not only the differences of approach between the two countries, but also the basis for harmonizing regulation in this area including international agreements.

4. The panel **Generative content: copyright holder protection problems** discussed the protection of AI-assisted objects and digital images and synthesized voices; use of intellectual property in machine learning systems. The panel was moderated by **N.A. Danilov**, General Director, National Federation of Music Industry, Candidate of Sciences (Law), Associate Professor, HSE, who has noted in his presentation that technological companies would use intellectual assets for machine learning

systems and new digital objects without seeking the copyright holder's consent. This situation has to be addressed by legislation, with a balance of interests to be found between holders of exclusive rights and developers of AI systems. Moreover, a three-stage test should be used as a commonly recognized standard of introducing and applying limitation of exclusive rights in authorizing the use of intellectual assets for machine learning.

T.D. Bogdanova, Candidate of Sciences (Law), Associate Professor, Russian Academy of National Economy and State Service under President of Russian Federation, Senior Lawyer, Announcers' Union, has spoken about the issue of using intangible goods including people's voices to create digital images and synthesized voices of celebrities. She also has reported about Russia's current legislative initiatives to regulate the creation and use of "deep fakes". In particular, a draft of law submitted to the State Duma proposes to add a new article to the Civil Code, Part 1 for protecting people's voices as personal non-property right along the lines of a person's image, including in the event of real-time voice cloning or speech synthesis. The draft of federal law underlines that no recording containing the voice reproduced through the use of specific technologies (meaning those for speech synthesis) could be published and used unless with the voice owner's consent. She also has shared the knowledge of international practices for synthesized voice protection. In judging whether intangible goods including voices are protectable, the following factors should be taken into account: purpose of the performance; where and who will use the synthesized voice; limits of using the synthesized voice; whether generative technologies will be made available to third parties; steps being taken to protect voice recordings and to limit access to cloning technologies.

A.Yu. Byrdin, General Director, Internet Video Association, told about legal problems of generative audiovisual content creation.

O.N. Kim, Advisor to S&P Digital General Director, told about the using AI in music industry where copyright issues abounded, with authoring made more complicated. The simplicity of creating AI-generated tracks coupled with low quality devalues music. Ten million of Suni AI users have created at least one track 8 months after the service launch; at Udio, 10 tracks per second are produced; and Music FX has posted 10 millions tracks 2 months after its launch. If digital music services publish a large part of this music, one can imagine how much will add up to already huge amount of what is weekly produced by art-

ists and music labels. Studies demonstrate that even high quality music uploaded on music services will not always find its way to listeners (an estimated 86% of uploaded tracks were accessed less than 1000 times). The emergence and monetization of AI tracks will deliver a hard blow to musicians' and copyright holders' incomes, making for them even harder to get to listeners' playlists. Moreover, there are fraudsters who use AI generators to earn money by preying on celebrities' music output. Thus, copyright holders are reporting unauthorized covers and remixes of popular songs from their catalogues created through the use of AI and published on digital music servers. It is very difficult to counter this practice by legally available methods as blocking even one such track will require considerable time and resources. Meanwhile, such violations are many because of the ease and low cost afforded by AI generators.

M.E. Riabyko, Board Member, Association for copyright protection in the Internet, Deputy Chairman, Committee on legislation of the Russian Book Union, has discussed the legal aspects of using AI in book publishing sphere. He has noted that intellectual assets were used at all stages of AI system development: constructing a database for AI learning; learning from this database (algorithms using authored content); developing tools for creative transformation (content creating interfaces); producing final outcome (a new or transformed object). It is increasingly hard to track possible violation of exclusive rights. The available legal tools cannot always handle such complicated cases. According to the speaker, technological progress could not be stopped; but *bona fide* standards could be adopted for intermediaries (parties developing and supplying tools for working with AI).

R.L. Lukianov, Managing Partner, Semenov & Pevzner firm, has described business risks of using the content created with the help of generative neural networks. He has noted that creative outcomes produced exclusively by generative neural networks cannot and should not enjoy protection of legal regimes (at least those of copyright or associated rights). Moreover, such creative outcomes should be labeled so that any consumer could unambiguously and without much effort identify them in civil law transactions as different from "classical" creative outcomes. Any commercial exploitation of a generative neural network "trained" on the basis of creative works owned by third parties should assume mandatory consent to be obtained from such third parties. Any violation by the generative system user of third parties' exclusive rights to creative outcomes (including derivative outcomes and other objects

to be created with the help of such system) should give rise to regular liability envisaged by law.

G.I. Uvarkin, Candidate of Sciences (Law), General Director, Omega Law Bureau, has discussed using generative AI to create professional and amateur content. He has stressed that this field has produced numerous regulatory and enforcement problems — such as inability to establish the sources of content's borrowings, despite a need to assess the outcome as likely derivative work; erosion of user creativity criteria due to unpredictability of specific outcome; lack of principles to judge who and when could be considered the author/copyright holder of the resulting text, image or other outcome. The specifics of using AI for professional content creation require that lawyers assume additional tasks to ensure its legitimate use and contractual compliance in respect of customers and licentiates. In particular, there is a need to develop contractual mechanisms to control AI's operational use, agree on the use of specific versions, check for likely restrictions, and also provide customers with intermediate results (output data) for judging the author's creative input.

E.I. Tkach, lawyer, Managing Partner, Tkach & Partners law firm, has spoken about the aspects of authorship and legal regime with regard to AI-assisted outcomes. She shared the knowledge of international experience of protecting the interests of copyright holders and relevant national practices.

V.V. Arabina, founder of the Laboratory for Mathematical Modeling, advisor to the President of Association for Export of Technological Sovereignty, and **M.A. Shakhmuradian**, founder of the Laboratory for Mathematical Modeling and of Ai Mono, author of "How AI Changes Business Practices" Telegram channel, has discussed regulatory aspects of machine learning from the perspective of those who developed technologies.

5. At the panel **Role of public law in shaping an optimal regulatory model for digital technologies and artificial intelligence**, participants exchanged their views on current challenges and prospects of public law regulation of AI and other digital technologies in Russia and elsewhere, and highlighted the issues of shaping a public law regulatory model for artificial intelligence.

According to the panel's moderator **E.V. Vasiakina**, Candidate of Sciences (Law), Associate Professor, HSE, all of the presentations mentioned below could be subsumed under specific subtopics that dealt with

the key aspects of public law regulation of digital technologies, with the first group of speakers focusing on the issues of use of such technologies by public authorities.

In opening the panel with a report Shaping an advanced model of justice in Russia with digital technology components, **O.A. Stepanov**, Doctor of Sciences (Law), Chief Researcher, Institute of Legislation and Comparative Law under the Government of the Russian Federation, discussed the examples of using innovative technologies around the world and concluded on the need to attach a technical assistant status to AI technologies likely to be used in Russia including at court. AI cannot be an independent party in trial while the contrary practice available internationally is not convincing enough to be adopted by the national legal system. Therefore, despite all the benefits and progressiveness of the idea to enhance the efficiency and accessibility of the legal system through technologies, there is a need to take into account legal and ethical aspects of implementation.

The issues of explainability and transparency of automatic decision-making in governance were discussed by **P.P. Kabytov**, Candidate of Sciences (Law), Senior Researcher, Institute of Legislation and Comparative Law under the Government of the Russian Federation, who has underlined the importance of regulatory framework for transparency of the algorithms used by public authorities. Governance as a whole needs to be modified including by way of developing legal mechanisms for transparency and confidence in automatic decision-making systems. Implementation of such mechanisms needs to rely on such criteria as "explainability" and "transparency" of algorithms whose characteristics were proposed by the author.

Specific aspects of digital technologies were discussed in light of their active use by individuals to exercise their rights and legitimate interests. In her report *The use of digital technologies for public service provision: problems and risk*s, **G.A. Grischenko**, Candidate of Sciences (Law), Associate Professor, Kutafin State University, has highlighted the aspects of digitization of public services including data security and accessibility. She has argued that the available examples of digital technologies for public service delivery in Russia allowed not only to build people's trust in digital change, but also to upgrade public governance as a whole.

In her report *Neural network as a means of protecting voting rights*, **N.N. Kuleshova**, Candidate of Sciences (Law), Associate Professor, Institute of Law under S.A. Esenin State University of Ryazan, has

proposed to use AI for better protection of individual voting rights and discussed possible legal and technological obstacles. The speaker has stressed the need for public services and voting rights to adapt to digital realities. While introducing AI in these areas can improve the quality of election procedures, this will require to maintain the security of data and individuals as an issue of higher priority.

In his report *Observing the balance of interests as a key factor of shaping an optimal regulatory model for digital technologies*, **D.V. Bolshakov**, founder of Botman.one low-code platform, has raised the issue of searching for an optimal model of using digital technologies by pointing out a need to account for the interests of businesses, government and individuals to harmonize the underlying regulation. He has noted that the development of digital technologies involved considerable financial complications currently faced by businesses. Apart from the theme of resources, there is a need to address those of data used by companies to train AI systems, to be handled in such a way as to avoid violation of personal rights. In the speaker's view, it is comprehensive regulation that should ensure the balance of all interests that intersect in digital technologies.

E.V. Zadorozhnaya, Candidate of Sciences (Law), Associate Professor, Moscow International University, has focused her presentation on the priority of securing individual rights based on the concept of personal digital sovereignty. To implement it, she has proposed to introduce legal mechanisms for protection of personal digital rights on the basis of the priority of personal data and security of digital identity.

The speakers legitimately argued for the importance of a balance between the interests of various stakeholders to achieve optimal regulation of the digital space. Protecting individual rights including digital sovereignty and personal data in the area of digital technologies is becoming a regulatory drafting priority.

A number of speakers have discussed the issue of regulating high technologies such as AI, quantum and block chain technologies, from the perspective of public law.

D.L. Kuteinikov, Candidate of Sciences (Law), Tyumen State University, presented a report *Advanced fundamental AI models: limits of regulation* focusing on the peculiarities of terminological understanding of artificial intelligence in various jurisdictions. In addition, he has formulated the most acceptable criteria of the need in adequate legal regulation of advanced AI technologies.

O.A. Izhaev, Candidate of Sciences (Law), Associate Professor, Tyumen State University, has made a presentation *Regulatory concepts for artificial intelligence: Brazil's experience* describing the evolution of Brazil's national law governing digital technologies. In discussing current models, the speaker has identified the specifics of AI regulation in Brazil and concluded that the government approved the basic regulatory principles effective in the EU: individual rights protection, non-discrimination and clarity. Another focus of the report was on categorization of risks involved in AI use under Brazil's law. Under the approach approved by Brazil's government, basic services, biometric control and admission to employment were associated with "high risk" while exploitation of vulnerable groups and social scoring with "excessive risk".

In his report *Prospects of public law regulation of quantum technologies*, **A.A. Efremov**, Doctor of Sciences (Law), Professor, Kutafin State University, has shared the findings of how the technologies in the field were regulated. He described the regulatory approaches to new technologies such as quantum computing opening up considerable opportunities and warranting special attention both at the national and international level. A need for international law to address this sphere follows, in particular, from the threat of possible abuse of quantum technologies that, once widely disseminated, can be used to destabilize the international financial system, violate data confidentiality and security, undermine trust in new technologies, etc.

In his report *Public interests and financial privacy: regulatory specifics of blockchain technologies*, **S.D. Afanasiev**, Candidate of Sciences (Law), Researcher, State Academic University for the Humanities, has dwelled on the data privacy problem in block chain technologies.

In the course of discussion, the speakers agreed that the study of international experience and adaptation of the best global practices could promote a successful regulatory model in Russia allowing to account for global trends and guarantee the protection of individuals. Meanwhile, quantum computing, block chain and AI technologies need to be regulated with a view to both their innovation potential and the risks for individual rights. Introducing advanced technologies requires to draft special legal provisions in support of their safe and ethical use.

Apart from the main panel, findings of young researchers were presented at the meeting. **K.A. Zyubanov**, Postgraduate Student, HSE, has presented a report *Contextual integrity as a criteria of legitimacy of personal data processing* where he proposed to take the context into account

in assessing the legitimacy of processing. **Z.O. Mityanov**, Postgraduate Student, Department of Law, HSE, Nizhny Novgorod branch, has proposed for discussion his paper *Defining biometric personal data in the context of progress of AI-enabled biometric technology*, in which he argued for a need to clearly define biometric data for effective protection. With the digital change giving rise to numerous data security issues, the theme of personal data regulation is currently high on the agenda.

Young researchers also discussed specific aspects of regulating both AI and virtual/augmented reality. In her report *Risk-oriented approach to regulating AI in Russia's financial market*, **V.S. Kalinina**, winner of the All-Russia digital contest in specialist training organized by the Council for Digital Economic Development under the Federation Council and the Presidential Academy, has proposed to take into account international trends of AI regulation for efficient enforcement practices. **V.S. Dolunts**, Postgraduate Student, Kutafin State University, has argued in his report *Legal aspects of using virtual reality in operations of public authorities* in favor of regulation of this area, with implications of actions to be extended to real relationships.

The presentations discussed at the panel **Role of public law in shaping an optimal regulatory model for digital technologies and artificial intelligence** confirmed the relevance and need in public law regulation of this are P. in Russia. A special focus was on protecting individual rights, transparency and explicacy of automated systems, international experience, specific use of high technologies in governance. The participants have agreed on the need to develop a relevant regulatory model to encourage a safe and ethical approach to introducing digital technologies across the board and to protection of human rights.

6. The panel **Regulation and self-regulation of artificial intelligence: AI in Legal Tech** was split into two thematic blocks: AI regulation and self-regulation and AI-based Legal Tech applications.

In his opening speech, the panel moderator **D.R. Salikhov**, Head, legal support group for regulatory initiatives at Yandex, Candidate of Sciences (Law), Associate Professor, HSE, has raised conceptual issues for discussion including the balance of interests regarding the method and extent of regulation, prospects of "soft law" in this area taking into account the international experience and domestic practices (such as the AI Good Practice Code and the Declaration of Responsible Generative AI). The moderator also mentioned possible transformation vectors of the legal profession, given the progress of AI technologies and techno-

logical, legal and ethical constraints of introducing AI solutions in the legal sector.

Under the first thematic block, a total of eight reports were presented. **E.I. Svischeva**, Director for legal issues at the VEB.RF group, has shared her vision of the relative proportion of regulation and self-regulation in view of the need, on the one hand, to support the development of technologies and advanced domestic solutions and, on the other hand, to achieve a balance of interests between the government, developers and individuals.

N.A. Falshina, Southern Federal University, has shared a comprehensive theoretic vision of shaping and promoting the general legal approaches to the category of "digital rights" and their role in the Russian legal system.

A.V. Fedotov, Senior Teacher, HSE, has discussed the questions of making the Russian law more specific in the context of current technological change.

In her presentation, **A.K. Lebedeva**, Associate Professor, Kutafin State University, has discussed the technological and regulatory issues of deep fakes including from the perspective of expert activities. In the presentation she has described current challenges and complications related to technological change and emerging approaches to expert work.

A.N. Izotova, Candidate of Sciences (Law), Associate Professor, HSE, has raised in her report the issue of allocating liability for the damage caused by AI technologies, with analysis based on the existing approaches related to liability for the damage caused by automated vehicles under different legal regimes.

A.S. Romanova, MIFT, has devoted her report the application of algorithms for standalone corporate governance systems. She also has presented in technical terms her vision of the prospects of using algorithms in traditionally "non-algorithm" spheres.

V.A. Trubina, Candidate of Sciences (Law), Associate Professor, HSE, has focused her report on the aspects of regulating AI's medical applications by describing the e-regulatory approaches and issues, in particular, related to systems for support of medical decision-making and AI-enabled medical appliances.

Yu.S. Varusha, Russian Academy of National Economy and State Service under President of the Russian Federation, has discussed in her

presentation theoretical and practical issues related to AI-enabled transformation of enforcement.

The second thematic block comprised presentations on AI-enabled Legal Tech applications and digitization of the legal function.

D.D. Toropova, Expert, Doczilla LLC, has shared her vision of AI applicability scenarios for the legal function in light of the current demands of businesses as well as the present-time technological and legal constraints. The report has concluded that despite a large potential to handle routine labor-intensive tasks, AI had numerous limitations to be accounted for.

A.A. Nakhushev, SSLA, has covered in his presentation methodological and theoretical issues of introducing AI in the legal function.

M.E. Plugin, SSLA, has focused his report on practical issues of introducing AI at arbitration tribunals while proposing a number of scenarios of AI applications to streamline secretarial staff operations.

7. A round table **AI technologies for industrial relations: advancements, failures, prospects** held as part of the workshop moderated by **O.I. Karpenko**, Candidate of Sciences (Law), Associate Professor, HSE, has evoked an active discussion of urgent digitization and AI-related questions, such as the role of AI in industrial relations; opportunities and challenges of legal protection of labor rights "violated" by AI. A general problem being discussed was raised in the following terms: AI and human factor in industrial relations — alliance or conflict?

Since the round table was attended not only by students of labor law, but also representatives of employers and trade unions. It has provided a unique opportunity for discussing the positions of stakeholders in industrial relationship, with the general direction set by **D.L. Kuznetsov**, Tenured Professor, HSE, who has highlighted the current digitization and AI trends affecting both the labor market and regulation of industrial relations.

As representatives of large employers, **S.S. Dombaev**, Vice-Principal, Senior Director for Staff, HSE, **A.V. Bezukladnikova**, Deputy Director for Legal Issues, HSE**, A.V. Zamoskovniy**, President of the Energy Sector Employers Association of Russia, have shared their experience of corporate use of digital technologies as well as plans to introduce AI-enabled components into production processes. **A.V. Zamoskovniy** has mentioned the experience when electric companies had to abandon AI applications until the technology was refined.

Trade union representatives **A.F. Valkova**, Head, Legal Labor Inspection, Moscow Trade Union Federation, and **M.R. Rozhko**, Senior Legal Counsel, Legal Labor Inspection, Moscow Trade Union Federation, have noted weak activity of workers in legal protection of labor rights as well their low literacy in legal matters.

The keynote report was presented by **I.A. Filipova**, Candidate of Sciences (Law), Associate Professor, Lobachevsky State University of Nizhny Novgorod. She has proposed a concept of AI, highlighted regulatory issues and impact on labor and outlined the objectives of labor law in an AI-driven world. Also she has presented and suggested to panelists to discuss her proposed amendments to the Labor Code of Russia. Her position and initiative has encountered an active opposition from **S.Yu. Chucha**, Doctor of Sciences (Law), Professor, Institute of State and Law, Russian Academy of Sciences.

O.Yu. Pavlovskaya, Candidate of Sciences (Law), Associate Professor, State Academic University for the Humanities, and **A.S. Kashlakova**, Candidate of Sciences (Law), Associate Professor, Sochi State University, have shifted the subject towards employment relations that preceded industrial relations by raising the issue of discrimination (so-called "hidden discrimination"), with employers actively using the latest computer tools to substantially change the process of administering employment relations at hire. It was noted, in particular, that posting job offers on a platform and receiving CVs did not create any obligation for the employer. However, job seekers often fail to see the difference between a standard electronic reply at the employer's website denying an invitation for interview and a refusal to hire in response to a written request. It was underlined that the risk of implicit discrimination by a potential employer on the grounds of the candidate's digital profile rather than his business qualities could not be excluded.

M.O. Buyanova, Doctor of Sciences (Law), Professor-Researcher, HSE, has shared the practices of digital technologies in a number of CIS countries.

As a matter of conclusion, the participants have agreed that there was no clear and unambiguous understanding of "artificial intelligence" either in society or among labor law practitioners. Where the concept is manipulated, AI is often mistaken for digital technologies that are essentially only a tool based on high technology that contributes to abandon outdated personnel management methods.

The round table participants also have discussed the situation of employers and workers, main parties to industrial relationship, in the age of artificial intelligence. It was concluded that in this duos the employer would be better positioned that the worker: firstly, because of his administrative power and key role in the production process, with the worker in subordinated and passive roles, and, secondly, because it was the employer (and only him) who was introducing digitization at his offices and would implement AI technologies in the future. This is likely to result in an absurd situation, with man having to compete with AI for vacancies. A concern was expressed about possible redundancies, especially in technology-driven sectors, with unemployment on the rise. However, Professor **S.Yu. Chucha** was confident that with expansion of the service sector and emerging new occupations, man would not be left behind.

Meanwhile, moral issues associated with the social aspect of AI technologies were a matter of much more concern. With a majority of workers psychologically ill-prepared for digital change at their organizations, more vigorous efforts were required to make people better prepared for forthcoming changes in the economy and daily life, as well as to promote education.

Unless AI technologies have become a sustainable practice and a duly part of legal transactions, it is premature to amend labor law. However, realities cannot be ignored. Advancing in quantum leaps, digital technologies undoubtedly impact the evolution of law, and we should be ready to promptly and effectively respond to inevitable future transformations of industrial relationship. Prohibitive tactics is not an option. The progress of AI technologies cannot be stopped despite prohibitions already imposed on them in some countries.

The HSE has launched a large-scale project to train teachers, research fellows and postgraduate students as well as administrative and managerial staff in using AI as part of the Priority 2030 Academic Leadership Strategic Program, with more than 1000 participants already completing the course. Upon completion, participants will be able to use the available AI services to considerably simplify and streamline their work processes while enrolment in the program will introduce them to opportunities and constraints of neural networks and AI.

If AI is a technology capable of independent creative work challenging that of human intellect, it appears premature to discuss whether it is technically applicable to industrial relations since there is no such technology yet. Industrial relations are now evolving towards flexible options

of digital change while building up digital capital as a tool for a phased transition to AI.

8. The panel *AI-enabled criminal law protection of agents of digital economy and finance* was moderated by **S.V. Rastoropov**, Doctor of Sciences (Law), Professor, HSE, who in his presentation *Specifics of staff training for criminal law protection of subjects of digital rights* has underlined digital technologies were fraught with new threats and challenges for mankind, only to require from legal practitioners to develop new approaches to the emerging issues including new algorithms to apply criminal and criminal procedural law. According to him, a profound study of digital technologies and their underlying risks should become part of education in criminal law. In this regard, the Department of Criminal Law is developing a new master's program *Criminal justice in regulatory drafting and enforcement*.

V.A. Prorvich, Doctor of Sciences (Law), Professor-Researcher, HSE, has presented a report *Mathematical aspects of criminal regulatory drafting and enforcement in modern economy and finance* where he argued that due to its practically unlimited potential AI had to be limited in criminal law and procedure. Lawyers have to do a good deal of drafting to remove gaps in provisions of both criminal and criminal procedural law that regard modern technologies (in particular, part 6 *Electronic documents and process document forms*, Law of Criminal Procedure of Russia). In these efforts one can use matrix systems to assess legal provisions that help to identify gaps and conflicts, something that will require to describe legal provisions in algorithmic language.

In his report *Social dangers of the Metaverse: issues of qualification and criminalization* **A.A. Bakradze**, Doctor of Sciences (Law), Professor, HSE, has evoked the need for criminal law regulation of metaverse. The metaverse, that is, online virtual space where avatar owners act via digital proxies, will be completed over the next 3–5 years. The avatar's behavior can later become self-referential, with the course of action determined without reference to the owner and developers. In this regard he has proposed that lawyers and developers joined their efforts to ensure algorithmic control of avatar behavior for compliance with law.

In her report *On video conferencing in investigation involving undercover persons*, **E.A. Artamonova**, Doctor of Sciences (Law), Professor, HSE, has noted that while the criminal procedure as a whole is conservative with regard to new technologies, the Criminal Process Code allows to use video conferencing in investigation (for face-to-face ques-

tioning, interrogation, identification). Despite undeniable benefits, video conferencing creates new problems of theoretic and applied nature if "undercover" persons are involved. **E.A. Artamonova** has proposed a number of amendments to the law of criminal procedure to limit the use of video conferencing in investigation involving "undercover" persons.

In her report *Conceptual erosion of the object of theft in modern criminal law*, **I.I. Nagornaya**, Candidate of Sciences (Law), Associate Professor, HSE, has argued that emerging technologies transformed the object of theft in modern criminal law. Technological change apparently requires to renovate the well-established provisions describing the classical institutions of criminal law (such as the object of theft). Virtual property is currently not subject to crime, something that calls for amendment of the law in line with the progress of digitization and artificial intelligence.

In her report *Modern view on crime prevention*, **O.Yu. Tsurluy**, Associate Professor, Russian State University of Justice, central branch, Voronezh, has noted that the concept of technology should be understood in much broader terms by studying not only theoretical, but also practical aspects. Crime prevention today comprises activities to study and analyze regular patterns of committing a crime with a view to defining adequate responses (legislative, organizational, technical, criminal, social, psychological, pedagogical) to neutralize or considerably hamper specific criminal behavior. The predictive function of criminalistics should be implemented towards anticipating the threats of using technologies for criminal ends: predicting potential threats and developing effective responses. It is inefficient and harmful to prohibit and negate technologies. With a universal conceptual framework required for regulation of technologies, its absence should not halt the process of studying, regulating and responding to the use of technologies for criminal ends.

A.V. Valter, Senior Teacher, Tyumen Skill Development Institute, Ministry of Interior of Russian Federation, has made a presentation *Artificial intelligence against tax crime,* in which he has argued that AI could dramatically change both tax crime and response to it, with AI technologies providing a range of tax monitoring and crime detection opportunities.

In her report *AI applications for crime detection and prosecution*, **A.Yu. Churikova**, Associate Professor, State Law Academy of Saratov, while analyzing the rise of IT-assisted crimes, has underlined the need for an application with preset search algorithms as well as AI software for promoting legal regulation of these issues.

F.M. Fazilov, Acting Professor, State Law University of Tashkent, has focused his report *Criminal liability of artificial intelligence* on AI's criminal liability emphasizing that while civil law provided for the relevant regulation, criminal law did not. The main question is who will be liable — developers? operators? legal entities owning AI? The speaker has reported that Uzbekistan had passed an AI development strategy for the period until 2030.

In speaking on the subject *Using artificial intelligence for response to crimes committed by convicts*, **V.M. Yakovleva**, Senior Teacher, HSE, has highlighted the increasing role of AI in detecting crimes by allowing law enforcement bodies to analyze large arrays of data for suspicious patterns. Machine learning systems are capable to predict crimes thus ensuring more effective use of resources by security services. While the use of AI for face recognition and video analytics largely accelerates the process of suspect identification, it is important to observe ethical standards and protect confidentiality of individual, something that requires careful regulation.

In her report *Limits of admissible use of AI in criminal procedure at the stage of trial*, **D.A. Rudenko**, Lenrezerv Bar Association, Saint Petersburg, has expressed opinion that while AI could be used in criminal proceedings at the stage of trial, it should not be allowed to make final decisions (deliver a sentence). AI can be used at the stage of intermediate decision-making.

In his report *Problems of ensuring the reliability of information contained in electronic/digital form*, **V.V. Moiseev**, Postgraduate Student, Institute of Legislation and Comparative Law under the Government of Russian Federation, has noted that, while civil law had a definition of AI, criminal law did not. The legislation does not define what information contained in electronic form can be considered reliable.

In his presentation *Prospects of improving committal for trial in the context of Russia's transition to information society*, **A.D. Poliakov**, Postgraduate Student, Institute of Legislation and Comparative Law under the Government of Russian Federation, has stressed that no investigation could be conducted virtually, unless a criminal case was maintained in electronic format. Meanwhile, already AI can be trusted to make intermediate decisions: for example, imposing a fine or referring someone to medial treatment. The speaker compared the committal for trial in the context of information society in Russia and in the United States.

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The article was submitted to editorial office 25.10.2024; approved after reviewing 01.11.2024; accepted for publication 01.11.2024.