

Legal Tech and Digital Legal Services: Benefits and Risks

Alfiya Kazi

Regulatory Affairs Manager and legal expert. Kazakhstan

Received: 14 July 2025; Accepted: 19 August 2025; Published: 12 September 2025

Abstract: The article examines the development of LegalTech technologies and digital legal services as one of the key areas of transformation of modern jurisprudence. Based on the analysis of foreign and Russian experience, the main trends are identified, including the introduction of artificial intelligence, automation of contractual work and the development of online legal proceedings. Particular attention is paid to international investment processes and the emergence of innovative legal consulting systems based on machine learning algorithms. In the Russian context, government initiatives within the framework of the national digital transformation program are examined, as well as the problems of insufficient legal regulation and limited distribution of digital solutions in legal practice. The need for an integrated approach to the development of LegalTech is substantiated, including scientific understanding of the ethical and legal consequences of automation, adaptation of legislation and expansion of regulatory mechanisms. It is concluded that digital legal services are becoming the most important tool for increasing the accessibility of justice and the quality of legal assistance, while the success of their implementation depends on the interaction of the state, the professional community and technology developers.

Scientific novelty

The scientific novelty of the study lies in the comprehensive consideration of modern trends in the development of LegalTech technologies and digital legal services with an emphasis on their integration into the Russian legal system. Unlike existing works, mainly devoted to a general overview of the LegalTech market, the article provides a comparative analysis of foreign and Russian models of technology implementation using current data for 2023–2025. The novelty is also manifested in the substantiation of the role of artificial intelligence as a key factor in the transformation of legal practice and in the identification of problematic aspects of legal regulation related to determining the status of digital legal assistants. The work proposes an original approach to determining the prospects of LegalTech in Russia, based on a combination of analysis of international experience, state digital initiatives and features of the national legal system.

Purpose of the study

The purpose of the study is to identify modern trends in the development of LegalTech technologies and digital legal services, analyze international and Russian experience of their application, and determine the prospects and problems of legal regulation in the context of the digital transformation of legal activity.

Keywords: LegalTech, digital legal services, artificial intelligence, automation of legal activities, online legal proceedings, legal regulation, digital transformation.

Introduction: The development of technologies in the legal sphere has a long history, closely connected with the evolution of methods of storing and processing information. Already in the middle of the twentieth century, the first attempts were made to automate legal activity by creating databases of judicial practice and regulations. In the sixties, the first computer legal search systems began to appear in the USA and a number of European countries, which became the

prototype of modern reference and legal systems. In the eighties, in connection with the development of personal computers, software packages became widespread, allowing lawyers to work more effectively with arrays of regulatory material.

In Russia, the process of digitalization of the legal sphere began in the nineties with the emergence of the first electronic legal databases, such as ConsultantPlus and Garant. These systems provided a new level of

access to legislation and judicial practice, becoming an integral part of the professional activities of lawyers. In the early 2000s, there was a gradual spread of electronic document management, as well as the use of specialized programs to automate individual areas of legal work, including the drafting of standard contracts and office work.

The term LegalTech in its modern sense began to be actively used after 2010, when technology startups began to offer the market solutions for automating legal processes, online consultations, and contract management. During this period, platforms for remote legal assistance were developed, as well as services that ensure transparency of interaction between the client and the lawyer. The introduction of artificial technologies intelligence opened up new opportunities, including the analysis of large arrays of judicial practice, forecasting the outcome of disputes, and the automatic drafting of legal documents.

Today, LegalTech is a dynamically developing area, covering both the corporate sector and government institutions. The introduction of digital legal services helps to increase the efficiency of justice, reduce costs, and ensure the availability of legal assistance for the general population. International practice shows that LegalTech is becoming an important tool in the context of the digital transformation of the economy and society, which necessitates its scientific understanding and the development of an appropriate regulatory framework.

In this regard, it seems relevant to study modern trends in the development of LegalTech, identify key areas of its application, analyze international experience and Russian characteristics, as well as determine the prospects and risks associated with the digitalization of legal activities.

Modern development of law is inextricably linked with digitalization and the introduction of new technologies into legal practice. In recent years, the concept of LegalTech has been used not only in scientific literature, but also in legislative initiatives, digital transformation programs and in the activities of law firms. LegalTech is usually understood as a set of technologies and services aimed at automating and optimizing legal activities, ensuring access to justice, reducing costs and improving the quality of legal services. In the context of global digitalization, the legal sphere cannot remain on the sidelines, since the volume of information processed, the need to improve the efficiency of legal proceedings and the needs of citizens for simplified access to legal services require new approaches.

In global practice, LegalTech has been developing

especially actively since the early twenties of the twenty-first century. Investments in legal technology startups in 2025 exceeded a billion dollars, which indicates the strategic importance of this area for business and the state. The most significant investments were made in projects related to the use of artificial intelligence to analyze judicial practice, automate the drafting of contracts, and predict the outcome of litigation. One of the largest players in the market was the Harvey startup, which attracted more than five hundred million dollars in investments. Similar trends are observed in relation to Luminance, a company specializing in intelligent contract processing.

A special place in the LegalTech structure is occupied by the so-called alternative legal service providers. These organizations offer companies outsourcing of certain legal functions, combining them with the use of artificial intelligence and analytical systems. The alternative provider market was estimated at more than twenty-eight billion dollars in 2023 and continues to grow. Their main area of activity is contract lifecycle management, which allows for significant resource savings and minimization of errors in the conclusion and execution of contracts. The implementation of such technologies allows for a reduction in the time required to verify one contract to a third of previous figures.

The scientific community is actively exploring the possibilities of using artificial intelligence in the legal sphere. In 2025, the architecture of the LICES system presented, providing automated consultations with a high degree of accuracy. According to the testing results, such a system was able to correctly identify legal issues in ninety-eight percent of cases and reduce the time for preparing a consultation by more than ninety percent. In 2023, the Chatlaw project, using a multi-component approach based on knowledge graphs and the Mixture of Experts architecture, attracted interest in the scientific community. Its efficiency turned out to be higher than that of general-purpose neural network models, including GPT 4. Such studies confirm the prospects of integrating artificial intelligence into the provision of legal services, but at the same time raise questions of ethics, liability, and the permissible limits of automation.

The Russian experience of developing LegalTech has its own specifics. The state considers the digitalization of the legal sphere as part of the national program of digital transformation and data economy until 2030. One of the key areas is the introduction of online courts and digital platforms for interaction between citizens and government agencies. An example is the development of a government services portal, which is

gradually acquiring the functions of a legal service, including signing documents, filing procedural statements, and participating in court hearings remotely. Pilot projects are also being developed in Russia to use artificial intelligence to analyze judicial practice and predict decisions.

At the same time, the level of technology implementation in the legal sphere in Russia still lags behind leading countries. According to industry research, only about fifteen percent of law firms use information technology to automate their work. The reasons for the lag include insufficient investment, poor training of specialists, and certain regulatory barriers. Legal regulation of LegalTech in Russia is still in its infancy and is implemented through separate experimental modes. There are initiatives to create regulatory sandboxes that would allow testing innovations in the legal sphere without the risk of breaking the law. At the same time, current regulations do not always keep up with the rapid development of technology.

Risks of introducing new technologies in jurisprudence

Particular attention in the scientific discussion is paid to the risks associated with the use of artificial intelligence in legal practice. Among them are the threat of breach of confidentiality, the possibility of distortion of information, the problem of bias in algorithms, and insufficient transparency of decisions made by the system. In addition, the question of the legal status of artificial lawyers and consultants arises. At present, the current legislation of most countries proceeds from the fact that only persons with the appropriate qualifications can provide legal services. A dilemma arises as to whether digital systems are allowed to participate in court hearings, whether they can sign documents or act on behalf of the client. These issues require further scientific study and a legislative solution.

Despite the significant potential of LegalTech technologies, their implementation is accompanied by a number of risks that require careful scientific analysis and legal regulation. One of the most pressing problems is the threat of breach of information confidentiality. Legal activity is associated with the processing of personal data and commercial secrets, so the use of digital platforms and cloud services creates additional vulnerabilities associated with the possibility of unauthorized access and information leaks.

Another important risk is algorithmic bias. Artificial intelligence is trained on large data sets that may contain errors or reflect certain social distortions. As a result, digital systems' decisions may reproduce

discriminatory practices, which is especially dangerous in the justice sector. The lack of transparency in the algorithms' work makes them difficult to verify and makes full control by the client or lawyer impossible.

A significant problem is the uncertainty of the legal status of digital legal assistants. The current legislation of most countries does not provide for the possibility of recognizing artificial intelligence as a subject of law or professional legal practice. This calls into question the admissibility of the participation of automated systems in court hearings, concluding transactions or providing consultations. In the absence of a clear regulatory framework, there is a risk of abuse and legal uncertainty.

O.A. Stepanov notes that the use of large databases and digital traces of citizens creates a threat of illegal interference in private life, since such data can be used not only by government agencies, but also by private companies, which increases the risks of leaks and abuses. [1]

Economic risks also deserve attention. Implementing LegalTech requires significant investments, which are not always justified for small law firms. There is a risk of market concentration in the hands of large technology companies, which could lead to monopolization and a decrease in the quality of services while simultaneously increasing their cost.

Finally, social risks cannot be ignored. The mass introduction of digital services can lead to job cuts among lawyers and assistants performing routine functions. This raises questions about the transformation of the legal profession, the need to retrain specialists and develop new competencies.

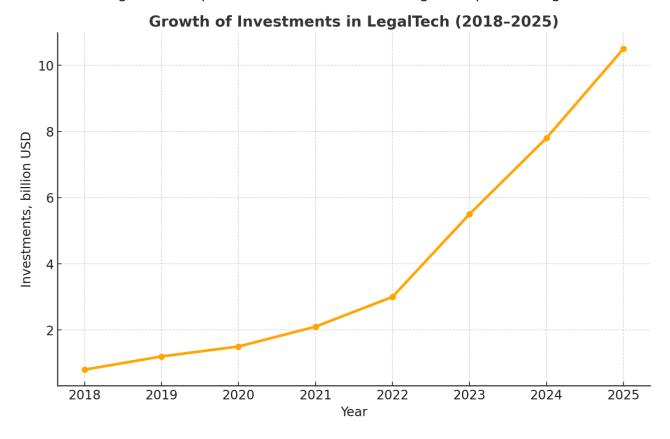
Thus, the risks of using LegalTech are complex and affect legal, technical, economic and social aspects. They can be minimized only if an effective regulatory system is developed, including the establishment of quality standards for digital services, control over the transparency of algorithms, protection of user data and adaptation of legislation to new technological realities.

Today, scientists do not allow the possibility of using new technologies for lawmaking without human participation. Since artificial intelligence cannot delve into these issues using ethical standards. [2]

Despite the existing limitations, the prospects for the development of LegalTech seem quite significant. It is predicted that in the coming years the legal technology market will continue to grow rapidly due to the introduction of generative models of artificial intelligence, the development of intelligent platforms for contract management, and the expansion of the functions of state digital services. In Russia, further

strengthening of the online court institution is possible, as well as the emergence of comprehensive solutions

for business integrating legal services with accounting, tax consulting and corporate management.



The graph shows the dynamic growth of investments in the LegalTech sphere from 2018 to 2025. It is clear that the volume of investments increased gradually until 2021, after which there was a sharp jump associated with the mass implementation of artificial intelligence technologies and the active development of digital legal services. The growth is especially noticeable in 2023–2025, when investments exceeded ten billion dollars. This reflects the global trend of recognizing LegalTech as a strategic direction for the transformation of legal activity and confirms its importance for business, the state and the scientific community.

Opportunities for the implementation of digital technologies

Thus, LegalTech is becoming a key factor in the transformation of modern jurisprudence. development is determined by both technological trends and the internal needs of national legal systems. Scientific research and practical projects of recent years indicate that the legal profession is entering a new stage, where traditional forms of legal work are combined with digital tools. This requires understanding not only the technical, but also the social, ethical and legal consequences of the introduction of innovations. The future of the entire justice system and the availability of legal assistance for

citizens depend on how successfully the interaction between the state, the legal community and technology developers is built.

Based on the research of A. N. Mitin, digital technologies make it possible to move as quickly as possible from the usual analysis of court cases to the development of specialized machines with built-in artificial intelligence for the formation of preliminary decisions on various similar cases, such as debt collection, overdue alimony, loans, etc. [3]

Significant opportunities are associated with the development of electronic legal proceedings. Platforms for filing claims, electronic exchange of procedural documents and participation in online hearings can significantly speed up judicial procedures, reduce logistics costs and ensure accessibility of justice for citizens living in remote regions. The transition to digital courts creates the preconditions for reducing bureaucracy and increasing trust in the judicial system.

It can be noted that modern technologies allow to significantly reduce, and in many cases completely eliminate, errors in legal, managerial, entrepreneurial, personnel and other spheres. This is expressed, for example, in the reduction of time for obtaining information about the level of knowledge, skills and experience of the employee, in facilitating the search for vacancies through employment centers, in

conducting testing during selection for positions, as well as in establishing electronic document flow between employers and employees. [4]

The table presents the main digital technologies that can be implemented in the legal field, as well as their key areas of application and potential effects.

Table 1. Possibilities of introducing digital technologies into the field of jurisprudence

Digital technology	Application in jurisprudence	Possible effects
Artificial intelligence	Analysis of judicial practice, forecasting case outcomes, automation of consultations	Increased decision accuracy, reduced analysis time, reduced costs
Machine learning	Processing large amounts of data, identifying patterns in court decisions	Creation of predictive analytics systems, support of legal strategies
Blockchain and smart contracts	Automatic execution of transactions, protection against fraud, transparent document flow	Reducing the number of disputes, increasing trust between parties, protecting against document forgery
Online platforms	Electronic filing of claims, online hearings, remote consultations	Increasing access to justice, speeding up processes, reducing bureaucracy
Big data	Collection and processing of arrays of court decisions, regulations, market analytics	Possibility of identifying trends, forming an evidence base
Virtual assistants	Real-time consultations, assistance in drafting documents	Reducing the workload of lawyers, increasing the availability of legal assistance
Robotization of processes	Automation of routine operations: document registration, application processing	Speeding up document flow, minimizing errors
Cloud technologies	Storing and collaborating on documents, providing remote access	Flexibility of lawyers' work, reduction of IT infrastructure costs

Cybersecurity	Protection of personal data and legally significant information	Reduce the risk of data leaks, build customer trust
VR and AR technologies	Virtual trials, simulation of legal situations for training	Improving the quality of training lawyers, developing digital courts

As you can see, the use of artificial intelligence and machine learning is associated primarily with analytical activities, allowing to speed up the processing of large amounts of data and increase the accuracy of forecasting the outcome of legal disputes. Blockchain and smart contracts form completely new models of interaction between the parties, ensuring automatic execution of contracts and a high level of transparency of document flow.

Online platforms and virtual assistants expand access to legal assistance and contribute to the formation of digital justice, while robotic process automation and cloud technologies are aimed at optimizing routine procedures and increasing the flexibility of legal practice. Big data and predictive analytics allow us to identify long-term trends and make more informed management decisions. Of particular importance is cybersecurity, which ensures the protection of personal data and legally significant information, as well as virtual and augmented reality technologies, which open up prospects for the modernization of legal education and judicial processes.

Thus, the given systematization demonstrates that the introduction of digital technologies into jurisprudence covers not only the technical aspects of automation, but also affects fundamental changes in law enforcement and law-making activities.

Although legal activity has already been largely automated using IT technologies, the search for new areas of their use continues. The main areas of development are considered to be increasing mobility (including through remote access technologies) and improving the functionality of existing systems for the convenience of users. At the same time, issues of protecting data from unauthorized access, as well as developing effective solutions for storing and reproducing electronic information, including electronic evidence, remain relevant. [5]

Conclusion

The conducted research showed that LegalTech

technologies and digital legal services are becoming an important factor in the transformation of the modern legal system. Their development is due to both global trends in the digitalization of the economy and society, and the internal needs of legal practice associated with the need to improve efficiency, reduce costs and ensure broad access to justice. An analysis of the historical development of LegalTech demonstrated a gradual transition from reference and legal systems and electronic document management to the use of artificial intelligence, systems for predicting court decisions and online legal proceedings.

International experience shows the rapid growth of the LegalTech market, supported bγ significant investments and the development of innovative startups. The introduction of generative models of artificial intelligence, automation of the contract life cycle and the integration of legal services into digital platforms are becoming key areas of development for the industry. At the same time, a scientific base is being formed, including research into new artificial intelligence architectures, such as LICES and Chatlaw, which confirms the prospects for their application in the legal sphere.

The Russian experience of implementing LegalTech demonstrates significant achievements related to the development of state digital services and the launch of online court projects. However, the level of technology use in law firms remains relatively low, which is explained by limited investment, insufficient readiness of specialists and gaps in legislation. To overcome these barriers, a comprehensive approach is needed, including the development of regulatory sandboxes, adaptation of the regulatory framework, increasing the digital competence of lawyers and stimulating innovative activity.

But despite the active research of scientists and the work of leading scientific laboratories, to date there is not a single really functioning and practically applied system of strong artificial intelligence. [6]

Combating the risks associated with the use of artificial intelligence requires a comprehensive approach, including the creation of clear regulatory frameworks and ethical standards, strengthening cybersecurity systems, developing international cooperation and exchange of experience, improving education and digital literacy, and introducing innovative security technologies. Despite the complexity of this task, the combined efforts of states, businesses, and society can minimize threats and ensure sustainable security in the digital space. [7]

LegalTech is not only a technological trend, but also a strategic direction for the development of jurisprudence. Its implementation opens up new opportunities for modernizing the legal system, but requires taking into account ethical aspects, protecting citizens' rights and ensuring transparency of digital tools. Prospects for further development of LegalTech are associated with the deepening integration of artificial intelligence, the expansion of digital services in judicial and administrative practice, as well as strengthening the interaction of the state, business and the scientific community.

Based on the above, it can be concluded that the implementation of LegalTech requires a balanced approach that combines rich technological innovations with well-thought-out legal and ethical regulation. Such an approach will help ensure the effectiveness of digital legal services and the protection of fundamental rights of citizens in the era of AI. [8]

Additionally, the Explainable AI and Law study highlights that the high efficiency of modern AI models is accompanied by their opacity and limited explainability for legal professionals, which hinders their implementation in legal processes. [9]

The development of LegalTech and digital legal services today forms a qualitatively new stage in the evolution of the legal system. These technologies not only transform the practice of providing legal services, but also pose challenges for science and society that require rethinking the usual approaches to fairness, access to justice and the responsibility of the professional community. [10]

Thus, the key task is to combine technological potential with appropriate legal and ethical support. Only by developing transparent mechanisms, adequate reporting and a balance between efficiency and fairness, LegalTech can become a reliable tool for the sustainable development of the legal system and maintaining public trust.

References

1. Stepanov O.A. Legal impact on the development of

- the digital environment in society. Moscow: Prospect, 2021. 88 p.
- Shcherbacheva Lyubov Vladimirovna MODERN IT TECHNOLOGIES IN JURISPRUDENCE // Education and Law. 2023. No. 9. URL: https://cyberleninka.ru/article/n/sovremennye-ittehnologii-v-yurisprudentsii
- Mitin Alexander Nikolaevich On the processes of introducing new information technologies into jurisprudence // Russian law: education, practice, science. 2019. No. 3 (111). URL: https://cyberleninka.ru/article/n/o-protsessah-vnedreniya-v-yurisprudentsiyu-novyh-informatsionnyh-tehnologiy
- **4.** Isakov I.N. Bulletin of RUDN. Series: Legal Sciences. 2023. Vol. 27. No. 4. P. 919-938
- Dzhatdoev, A. H. Information technologies in jurisprudence / A. H. Dzhatdoev. - Text: direct // Young scientist. - 2018. - No. 6 (192). - P. 20-24. -URL: https://moluch.ru/archive/192/48304/.
- **6.** Berezina E. A. Use of artificial intelligence in legal activity // Actual problems of Russian law. 2022. Vol. 17. No. 12. P. 25–38. DOI: 10.17803/1994-1471.2022.145.12.025-038.
- 7. Digital technologies and law: collection of scientific papers of the II International Scientific and Practical Conference (Kazan, September 22, 2023) / edited by I. R. Begishev, E. A. Gromova, M. V. Zaloilo, I. A. Filippova, A. A. Shutova.
- 8. In 6 volumes. Vol. 5. Kazan: Publishing House "Poznanie" of Kazan Innovation University, 2023. 380 p. EDN: BVPNNQ. DOI: http://dx.doi.org/10.21202978-5-8399-0818-5_5_380
- 9. Brozek, B., Furman, M., Yakubets, M., et al. The "black box" problem revisited. Real and imaginary problems of automated legal decision making. Artif Intell Law 32, 427–440 (2024). https://doi.org/10.1007/s10506-023-09356-9
- 10. Richmond K. M., Maddamsetti S. M., Gammeltoft-Hansen T., et al. Explainable artificial intelligence and the law: An evidence-based review. DISO 3, 1 (2024). https://doi.org/10.1007/s44206-023-00081-z
- **11.** Yap JK, Lim E. A legal framework for ensuring fairness in artificial intelligence reporting. Cambridge Law Journal . 2022;81(3):610-644. doi:10.1017/S0008197322000460