

# Information and Communication Technologies in the Main Types of Legal Activities

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## Summary

Thanks to the informatization of society, complex and high-tech devices are being introduced in all areas of human life, and the latest technologies are being actively improved in the modern, globalizing world. The article deals with the issues of using information and communication technologies in legal activities. It also covers the main types of such activities: law-making, law enforcement, and interpretive activity. Since there is an increase in the flow and accumulation of legal information, it is practically impossible to use traditional methods of working with legal information. The article considers and analyzes the role of information and communication technologies in modern legal activity. It is necessary to reveal the principles, concepts, conditions, and factors of their development and develop theoretical and practical recommendations for the use of such technologies in order to solve legal tasks. The authors of the article raise the issues of increasing the efficiency of legal activity, as well as the integration of information technologies into practical legal activity and their use for collecting, storing, searching, and issuing legal and reference information. Much attention is paid to the specific use of automated data banks and information retrieval systems in legal practice that ensure the accumulation, systematization, and effective search for legally important information. The development of such technologies leads to the creation of comfortable conditions for a lawyer in the course of their professional activity. Currently, legal activity cannot exist without telecommunication technologies, legal reference systems, and electronic programs. The authors believe that due to the use of the latest information technologies, the time for making legal decisions has significantly accelerated, the process of searching and systematizing evidence has been worked out, and it has become possible to quickly and efficiently find information on adopted laws and legal acts.

## Keywords:

*law-making, law enforcement, interpretive activity, legal engineering, legal activity, information technologies.*

## 1. Introduction

It is no coincidence that the 21<sup>st</sup> century is called "information" because modern technologies have entered the everyday life of people and influenced all spheres of society. The history of information technology dates back

to ancient times. The "information" term (from Latin "informatio" – presentation and explanation) was introduced into science almost 2000 years ago by the ancient Roman jurist and politician Cicero. Back then, this concept meant messages transmitted by people in oral, written, or any other form. Until the beginning of the 21<sup>st</sup> century, information was understood as data from various sources, and it was believed that only a person was able to produce and manage information.

In the modern world and in the context of global informatization, the situation has changed dramatically. The stable economic and political development of Russia, as well as the construction of a rule-of-law state, where everyone will be provided with timely protection of rights and freedoms, depends on high-quality, timely, and accurate information. In this regard, new tasks and working conditions are created for professional legal activity.

These topics require careful scientific research, therefore we will be able to understand what role information and communication technologies play in the professional activities of a highly qualified specialist only by determining the main types of legal activity.

The main problem of the modern legal mechanism is that only the legislative authorities of the Russian Federation adopt dozens of normative acts each day and lawyers have to work with huge flows of social and legal information, which is almost impossible to cope with without the help of modern technical and software tools. At the same time, one of the most important tasks of legal activity is the timely receipt of reliable and up-to-date legislative information, including amendments and additions to legal documents. The solution lies in the field of integration into the legal sphere of modern information technologies. Thus, the most important factor in improving the effectiveness of legal activities is modern information and communication technologies aimed at creating, preserving, processing, and providing effective ways of presenting information to a lawyer.

The urgency of solving this issue is due to the fact that information and legal systems in the modern world become

almost indispensable when searching for and working with legal information. According to the Russian legal scholar A. Kuzmin [1], information support is the core of legal activity since a legal decision-making system is based on the information collected and analyzed. The use of information technologies in legal activities allows not only to work with arrays of legislative information but also to regularly introduce a huge number of various legal documents, as well as store databases of archival documents, etc. The active use of special search software helps to search through the entire information base in real time. Since the late 1960s, European society has been using legal databases due to the development of computer information technologies. These were the first electronic card catalogs (CREDOC system, Belgium) containing legal information with details on printed publications.

The use of information and communication technologies in legal activities is the subject of a number of scientific studies, primarily legal, political, technical, and psychological. The growth of such scientific papers is associated with the interest of lawyers in organizing unified information and legal space of the legal community in the Russian Federation. The theoretical basis of this scientific research was laid by the works of L.V. Turkaev, Kh.Kh. Astamirov and Ya.A. Khaduev on the role of informatization in the legal systems of Russia, the modernization of the information support of the Ministry of Internal Affairs (A.V. Zhaglin, A.V. Morozov); issues of using computer technologies in legal activities (E.V. Burtseva, V. Krylova, N. Polevoy, V.N. Chernyshev). Speaking about the concept of legal activity, there is no single definition of this category. The dispute about such a definition has been going on for more than a decade. This is explained by the fact that there is no need for a legislative definition of the concept, and the number of possible types of legal activity and its actors grows in proportion to the development of law.

The most general definition of legal activity says that this is the activity of a subject in the field of law associated with the application of legal knowledge and aimed at solving specific practical tasks.

Regarding types and forms, not everything is smooth and unambiguous. In this article, only three main types of legal activity will be analyzed since it is impossible to consider the use of information technology in all its forms within the framework of one scientific article.

The effective use of information and communication technologies in legal activities creates new opportunities for achieving new results in the lawyer's activities. Together with properly selected processing and systematization technologies, information technologies create the necessary level of work quality.

## 2. Methodology

Modern legal methodology aims at identifying ongoing social changes, determining the appropriate stage of social development, predicting the emergence of new social and legal phenomena, and the modification and adaptation of existing legal phenomena and processes to new conditions.

The methodological basis of the article consists of the general principles of philosophy, synthesis, induction, deduction, and generalization. While preparing the article, we used theoretical and special scientific methods: systemic and comparative legal methods, information processing, logical analysis, information theory, and information communication.

We took a systematic approach as a basis to consider information and communication technologies in jurisprudence not as separate parts but as a system in the structure of modern Russian law. To analyze the experience of using the latest technologies in foreign countries, we needed to use the comparative legal method. Since it is impossible to study the Russian method of collecting, analyzing, and processing information using the latest technologies without taking into account the European experience. The latter allows one to evaluate and develop effective recommendations in the informatization of the legal sphere.

## 3. Results

To correctly assess the importance of information and communication technologies in legal activities, we need to consider how various technologies are used in the implementation of the main types of legal activities: lawmaking, law enforcement, and interpretation.

**Law-making.** At the stage of drafting regulatory legal acts, the legislator needs to check the relevance of the legal regulation of public relations, the practice of applying the current legislation, and foreign experience in rule-making on cases similar to the one that should be solved.

Due to the need to determine the relevance of legal regulation, the legislator starts with studying statistical data on the proposed subject of legal regulation [2]. The first tool is legal statistics portals, whose information is constantly updated. In Russia, one of these portals is crimestat.ru, a legal statistics portal of the General Prosecutor's Office, where you can easily see the dynamics of crimes in a particular area displayed in the form of electronic diagrams that are easy to read. If necessary, all data in the form of a table can be uploaded manually (for example, in Microsoft Excel). This method of studying legal statistics helps to avoid inaccuracies in the calculation of data, and also significantly increases the speed of work.

Another element necessary to obtain up-to-date information on the subject of legal regulation is interaction with the citizens, reflecting a look at the problem from the inside out. The so-called e-government can help with this. The concept of e-government implies a change in the internal and external relations of state organizations based on the use of the Internet and information and communication technologies in order to optimize the services provided, increase the involvement of society in public administration and improve internal business processes [3]. To learn the opinion of citizens on the issue, it is enough to conduct a survey on the official portal of the legislative institution. This technology has some peculiarities in its use: it is necessary to preliminarily register data about the user who wants to participate in the survey so that the data is not subject to deliberate distortion by unfriendly users voting for one answer several times [4].

To study the application of the current legislation, information is collected from the bodies responsible for such activities. For this purpose, these bodies compile reports (often in electronic form). When preparing such reports, their employees can use official archives, some of which are freely available to all citizens of the state. For example, [ras.arbitr.ru](http://ras.arbitr.ru) is an archive in the Russian Federation that contains judicial decisions of arbitration courts. In addition, information on the practice of applying the current legislation is also published on official portals (for instance, decisions of the Plenums of Courts), which also simplifies the analysis of law enforcement. Foreign experience helps to consider technologies similar to the ones mentioned above. This presents some information openly, i.e. providing automatic processing and reference legal systems containing the most relevant regulatory legal acts.

The result of law-making activity (a regulatory legal act or amendments to an existing one) is also published on official portals for the purpose of promulgation. In Russia, one of these portals is [pravo.gov.ru](http://pravo.gov.ru), where you can learn the current legal framework. In 2003, it became mandatory to post legal acts adopted by the Government of the Russian Federation and federal executive authorities on the Internet [5].

D.A. Savelyev [6] emphasized that such tasks as automated annotation and classification of texts, analysis of certain terms at the word-based rather than document-based level (analysis of the legal thesaurus), automated extraction of new information and drawing conclusions up to the preparation of documents and answers to questions in natural language became possible thanks to new technologies: the statistical processing of such text arrays as "big data", machine learning, ontological modeling, and computational linguistics.

It is especially important to analyze the use of certain terms in texts (documents), which significantly increases the speed of searching for the necessary information. Machine

learning and computational linguistics allow artificial intelligence to select the relevant information with the ability to sort by the date of its appearance, the number of times it was accessed, etc. [7]. At the same time, these technologies highlight the need to eliminate errors associated with violations of the basic rules of legal engineering (when analyzing the context, the machine can detect the incorrect use of a particular term, as well as spelling errors), which greatly simplifies the preparation of regulatory legal acts for publication [8].

The use of the above-mentioned means helps to rapidly study the legal regulation of a particular object and make appropriate changes in time.

**Law enforcement.** In relation to information and communication technologies in the field of law enforcement, it is necessary to note the impossibility of complete automation of law enforcement activities. In particular, the most automated systems for issuing judgments can never completely replace human beings [9]. Of course, there are examples of electronic courts considering the most basic categories of cases in China [10], but any ambiguous decision (related to the need to determine the guilt of the defendant in the investigation of a murder case) can be made only by a person able to fulfill all the requirements for judicial proceedings.

In this regard, it is necessary to distinguish between the concepts of "electronic court" and "electronic justice". The electronic court is a fully automated judicial decision-making system, while the concept of electronic justice suggests that courts use computer technology in their activities as a means, but not as a procedural system of tools, in which the stages of justice are carried out through the use of communication technologies [11]. The concept of e-justice can be identified with the concept of informatization. The latter is being introduced all over the world, and it is connected with the expansion of online access to the archives of court decisions, as well as with new opportunities that facilitate the process of filing and considering an application: for example, the electronic filing of an application. The concepts of "electronic court" and "electronic justice" are nothing more than legal fiction, which is a feature of legal engineering in the era of digitalization [12].

When investigating an offense or crime in order to deliver a sentence, a wide range of information technologies are used [13]. Thus, information about connections between subscribers and/or devices [14] can be obtained, which allows getting data about the date, time, and duration of connections between subscribers and/or devices (user equipment), subscriber numbers, as well as other data to identify subscribers, the numbers and location of transmitting-and-receiving base stations [15]. This technology is called billing. The use of billing significantly reduces the time spent on determining the possible

involvement of specific persons in the commission of an offense (crime).

Evidence in the case can include photos, video recordings, screenshots, and other evidence obtained during the use of information technologies by both the body that seizes evidence and the injured party if any (subject to all proceedings). Furthermore, a number of documents can be provided in electronic form.

There is an opinion that it is necessary to introduce a regime for tracking the progress and results of a public or covert action of a law enforcement agency in obtaining evidence: to apply the traditional written method alongside its fixation exclusively by technical means [16]. It seems reasonable since it can reduce the malpractice of law enforcement officers but the introduction of such a regime requires large financial costs and the subsequent training of persons who will use these technologies. Given the current workload of law enforcement agencies, such a regime can be introduced only if information recording is sufficiently automated so as not to increase the time spent by employees to perform the recorded action.

Specialized software is also often used (for example, GosLinux for the Federal Bailiffs' Service of the Russian Federation). It ensures the increased security of data transmitted within the framework of this software and reduces financial costs for arranging working places.

Automated research systems are also widely used: most often these systems aim at studying a specific type of data and contain a large database of uploaded samples, which allows them to determine the most important characteristics of the object under study. This increases not only the speed of such studies but also their quality [17].

The Ministry of Internal Affairs of Russia is implementing a program to create a unified information and telecommunication system for internal affairs bodies. It involves "IBD-Region", including 14 automated search and accounting systems, the "Antiterror" automated information retrieval system, an automated information retrieval system for the biometric identification of a person by face image ("SOVA"), fingerprint, phonoscopic and ballistic identification systems (AFIS "Papillon", "Phonobase" and ILS "Tais") [18]. This significantly improves the crime detection rate and the overall quality of work. At the moment, such systems are used everywhere, wherever it is possible to provide their material and technical infrastructure. In foreign countries, there are similar programs with similar functionality.

The Russian scholar and lecturer of the Kemerovo State University R.G. Drapezo [19] developed a detailed classification of information and telecommunication systems used in legal practice (Figure 1).

**The interpretation** of the norms of law means understanding and explaining the meaning of legal norms

laid down by the legislator, revealing hidden properties and potentials due to the properties of law, the spirit of a particular legal system. This process aims both at comprehending the rule of law by the subject of interpretation and explaining its meaning to all the parties involved [20].

Interpretation can be formal or informal. The first is made by authorized bodies and persons with special knowledge. It is mandatory for clarifying controversial issues related to the interpreted rule of law and entails legal consequences.

An unofficial interpretation does not have any legal consequences, therefore the range of subjects of interpretation is not limited: it can include public organizations, teachers, or persons without a legal degree. By its nature, interpretive activity implies a limited potential for automation since it is carried out by a person in order to interpret regulatory legal acts and other documents. However, a number of means are also used in its implementation that somewhat facilitate this process [21]. First of all, these are the above-mentioned official portals, providing information about those acts that are planned to be interpreted. In case of an official interpretation, its results are uploaded to such portals.

It is worth mentioning reference legal systems. They allow the interpreter to get acquainted not only with documents (though not related to official publication) but also with reports, comments, monographs, and other works, whose knowledge can help in this type of activity. The first system in Europe was CREDOC founded in 1967 [22] but it had a number of significant drawbacks: many documents were kept in a compressed form and some unpopular documents were not uploaded at all, not to mention comments and monographs. Nowadays such shortcomings of reference legal systems are eliminated. For convenience, documents are often provided with an interactive table of contents, while the text itself is checked to avoid errors.

The importance of modern information technologies in legal activity cannot be overestimated since their use provides, firstly, quick and efficient access to the legislative framework in order to obtain the necessary legal information. Secondly, the informatization of law-making allows one to identify the compliance of the adopted legal act with the current law. In addition, it serves as a legal connection between the newly adopted legal act and the basic law. Thirdly, in the course of legal activity, informatization allows not only determining legislative norms that have lost their force but also preventing the inconsistency of regulatory acts. The main task of informatization of legal activity is to create conditions for increasing the legal awareness of all parties to legal relations that enforce laws.

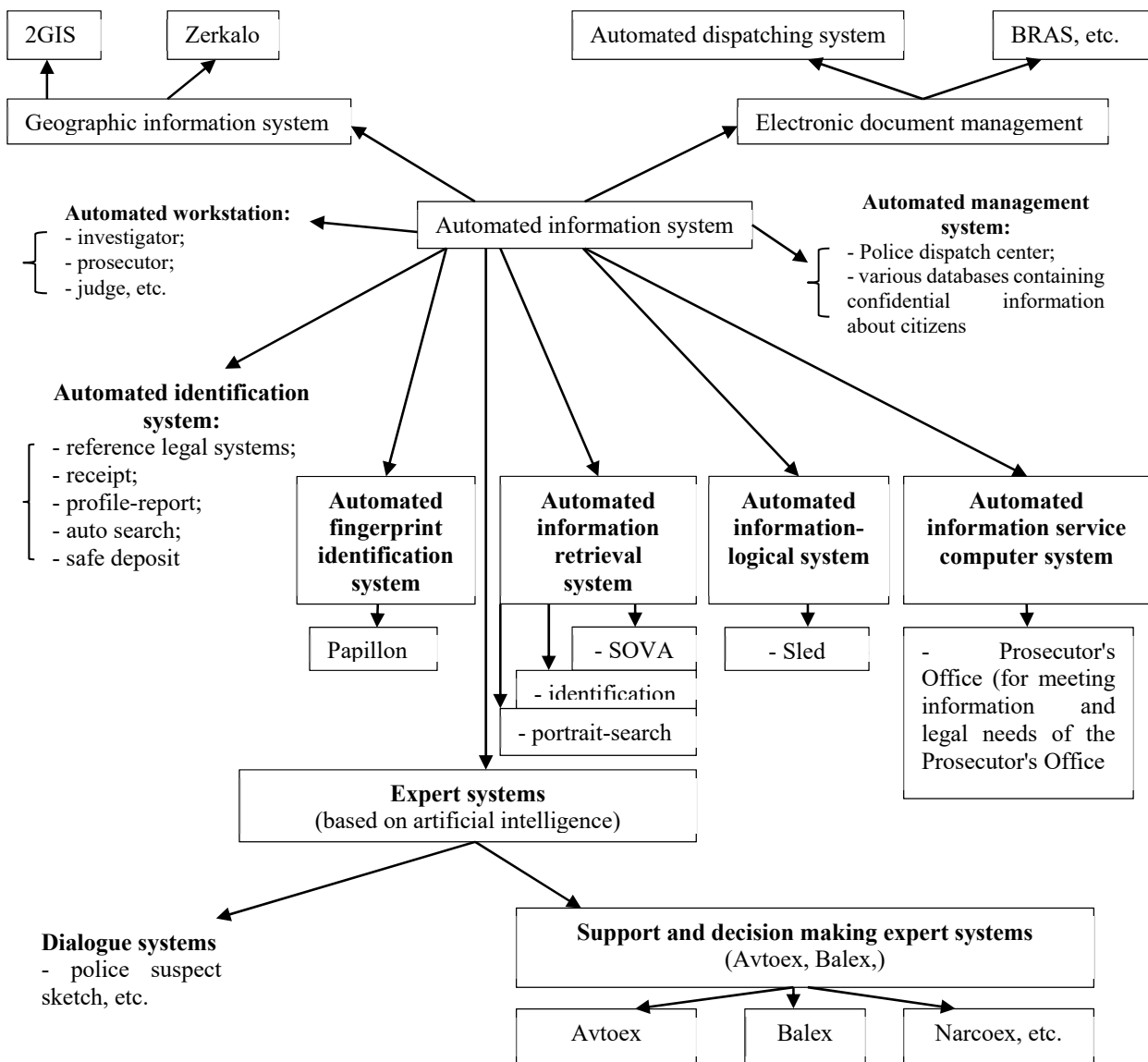


Figure 1. The classification of information and telecommunication systems used in legal practice [19]

#### 4. Discussion

Thus, a large number of various information and communication technologies are used in modern legal activity. They perform the tasks of storing large amounts of data, transmitting and processing information, and solving specific problems, which greatly facilitates the work of a lawyer. However, the main and important function of using the latest information technologies in the legal sphere is the preparation of a legally correct decision. It is worth mentioning that, for all their versatility, modern information

technologies often cannot prevent an unauthorized access to information and build a unified organizational and technological system for performing legal activities. To fulfill these tasks, it is important that legal information systems are flexible and stable, and should be protected as much as possible from external and internal unauthorized impacts. Any problems that hinder the fulfillment of these tasks should be eliminated. In the near future, it is vital to determine the quality, speed and general accessibility of legal databases, and to improve the qualification of specialists employed in this industry. Despite a large number of various information systems governing legal

activity, the search for new uses of information technologies continues.

For example, the Russian scholar M.A. Masyuk [23] developed the concept of modernizing the legal reference system and electronic data through integration. The Lotus Notes/Domino tools and VML technologies allow to "display the relationship of documents and analyze them for compliance with regulatory legal acts". The lecturers of the Volgograd Academy of the Ministry of Internal Affairs of the Russian Federation G.M. Semenenko and I.A. Strizhchenko [24] proposed to introduce an electronic system for registering citizens applying to the Ministry of Internal Affairs into public use, which will allow law enforcement officers to conscientiously fulfill their official duties. The main concepts of using information technologies for the investigation of crimes were reflected in the studies of a number of Russian scholars, including T.V. Averyanova, O.Ya. Baev, R.S. Belkin, R.M. Lantsman, A.A. Levy, E.M. Lifshitz, N.P. Yablokov, etc. Technologies for conducting investigative and operational activities using computer devices are considered in the works of Yu.M. Baturin, E.N. Bystriakov, A.S. Shatalov, A.N. Yakovlev, etc.

The use of information and communication technologies in legal activities suggests the constant improvement of ways and methods for modernizing this type of activity but such changes are poorly reflected in the theory of law. This necessitates the continuous development of legal knowledge in this area, without which attempts to apply new technologies will not have the expected results. We selected this research topic because of insufficient elaboration and the urgent need to consider it in modern realities.

Even a superficial analysis of information and communication technologies in legal activities shows that in the course of digitalization its content and forms change, while the legal processes taking place in the modern digital environment accelerate [25].

Legal science quickly responds to modern requirements. In the last 3-4 years, many scientific works were prepared on the digitalization of law [26].

The informatization and communication of technologies are being actively introduced into the activities of state bodies, including the prosecutor's office, courts, the Ministry of Internal Affairs, etc. It is impossible to imagine legal activities without the use of legal reference systems. This topic is relevant since the list of phenomena under study is constantly increasing, which only exacerbates the need for its scientific consideration.

## 5. Conclusion

Based on the study results, we can draw the following conclusions. Information and communication technologies are used in the implementation of all major types of legal activities: law-making, law enforcement, and interpretation. At the same time, the use of information and communication technologies in the activities of state bodies is authorized by the state.

Information and communication technologies are seldom used in the implementation of interpretive activities, which is associated with the specifics of their implementation.

The use of information and communication technologies in legal activities increases its productivity, as well as helps to eliminate minor defects.

When planning the use of information and communication technologies, it is necessary to consider real conditions for the implementation of legal activities and their possible use.

## Acknowledgments

The study was conducted with the financial support of the Russian Foundation for Basic Research within the framework of scientific project No. 18-29-16114.

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