



## INFORMATION AND COMMUNICATION TECHNOLOGIES IN THE MAIN TYPES OF LEGAL ACTIVITY

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### ABSTRACT

**Background:** Complex and high-tech devices are being introduced and the latest technologies are being actively improved in all areas of human activity in the modern, globalizing world, due to the informatization of society. The article deals with the problems of the use of information and communication technologies in legal activity. Its main types have been investigated: lawmaking, law enforcement, interpretive activity. Today, there is an increase in the flow and accumulation of legal information, which makes it practically impossible to use traditional methods of working with legal information. **Aim:** The purpose of the study is to consider and analyze the role of information and communication technologies in modern legal activity, to identify the principles, concepts, conditions, and factors of their development, to develop theoretical and practical recommendations on the use of such technologies to solve legal problems. **Results and Discussion:** The authors raise issues of improving the efficiency of legal activity, as well as the problems of integrating information technologies into practical legal activity and their use for collecting, storing, searching, and issuing legal and reference information. Much attention has been paid in the article to the peculiarities of using automated data banks and information retrieval systems in legal practice, providing 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 his/her professional activity. **Conclusion:** Today, legal activity is unthinkable without telecommunication technologies, legal reference systems, and electronic programs. The authors of the article believe that the time for making legal decisions has significantly accelerated due to the use of the latest information technologies, the process of searching and systematizing evidence has been worked out, it has become possible to quickly and efficiently find information about adopted laws and legal acts.

**Keywords:** Lawmaking; Law enforcement; Legal technique; Legal activity; Information technology.



## TECNOLOGIAS DE INFORMAÇÃO E COMUNICAÇÃO NOS PRINCIPAIS TIPOS DE ATIVIDADE JURÍDICA

### RESUMO

**Antecedentes:** Dispositivos complexos e de alta tecnologia estão sendo introduzidos e as tecnologias mais recentes estão sendo aprimoradas ativamente em todas as áreas da atividade humana no mundo moderno e globalizado, devido à informatização da sociedade. O artigo trata dos problemas do uso das tecnologias de informação e comunicação na atividade jurídica. Seus principais tipos foram investigados: legislação, aplicação da lei, atividade interpretativa. Hoje, há um aumento no fluxo e acúmulo de informações jurídicas, o que torna praticamente impossível a utilização de métodos tradicionais de trabalho com informações jurídicas. **Objetivo:** O objetivo do estudo é considerar e analisar o papel das tecnologias de informação e comunicação na atividade jurídica moderna, identificar os princípios, conceitos, condições e fatores de seu desenvolvimento, desenvolver recomendações teóricas e práticas sobre o uso de tais tecnologias. **Resultados e Discussão:** Os autores levantam questões de melhoria da eficiência da atividade jurídica, bem como os problemas de integração de tecnologias de informação na atividade jurídica prática e seu uso para coletar, armazenar, pesquisar e emitir informações jurídicas e de referência. Muita atenção foi dada no artigo às peculiaridades do uso de bancos de dados automatizados e sistemas de recuperação de informações na prática jurídica, proporcionando acúmulo, sistematização e busca efetiva de informações juridicamente importantes. O desenvolvimento de tais tecnologias leva à criação de condições confortáveis para o advogado no exercício da sua atividade profissional. **Conclusão:** Hoje, a atividade jurídica é impensável sem tecnologias de telecomunicações, sistemas de referência jurídica e programas eletrônicos. Os autores do artigo acreditam que o tempo para a tomada de decisões judiciais acelerou significativamente devido ao uso das mais recentes tecnologias de informação, o processo de busca e sistematização de provas foi trabalhado, tornou-se possível encontrar de forma rápida e eficiente informações sobre leis e atos jurídicos.

**Palavras-chave:** Legislação; Aplicação da lei; Técnica jurídica; Atividade jurídica; Tecnologia da Informação.

### 1. INTRODUCTION

The 21st century is not accidentally called "informational", because it is today that modern technologies have noticeably entered into a person's daily life, which have deeply affected all possible spheres of society. The history of information technology dates back to antiquity. The "information" term (Latin "informatio" – exposition, explanation) was introduced into scientific circulation almost 2000 years ago for the first time in the writings of the ancient Roman jurist and politician Cicero. At that time, this concept meant messages transmitted by people in oral, written, or in some other form. Information was understood as



information coming from various sources until the beginning of the 21st century and it was believed that only a person can create and manage information. The situation has changed extremely in the modern world, in the conditions of global informatization. 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, directly depends on high-quality, timely, and accurate information. In this regard, new tasks and working conditions arise in professional legal activity. That requires careful scientific research, therefore, only by determining what information and communication technologies are in the main types of legal activity, we will be able to understand what place they occupy in the professional activities of a highly qualified specialist.

The main problem of the modern legal mechanism is that only the legislative authorities of the Russian Federation sometimes adopt several dozen regulations a day and a lawyer has to work with huge flows of socio-legal information, which it is almost impossible to cope with without the help of modern technical and software tools. Meanwhile, 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 regulatory documents. The solution to such a problem lies in the field of integration into the legal sphere of modern information technologies. That is why the most important factor in improving the effectiveness of legal activity is modern information and communication technologies aimed at creating, preserving, processing, and providing effective ways to present information to a lawyer.

The urgency of solving this problem is since information and legal systems in the modern world are increasingly becoming almost indispensable when searching and working with regulatory information. According to the Russian legal scholar A. Kuzmin (1999), information support is the core of legal activity, since a legal decision-making system is built based on the collected and analyzed information. The use of information technologies in legal activity gives not only the opportunity to work with a large number of arrays of legislative information, but also regularly make a huge number of different regulatory documents, as well as store databases of archival documents, etc. The active use of special search software makes it possible to search through the entire information base in real-time. Meanwhile, legal databases have been actively used in the European Community since the late 60s of the twentieth century with the development of the field of computer information technologies. These were the first electronic catalogs-card files (CREDOC system, Belgium) containing legal information with detailed details of printed publications.



The problem of the use of information and communication technologies in legal activity is the subject of several scientific studies, primarily legal, political, technical, and psychological. The growth in the number of scientific papers on this issue is associated with the interest of legal scholars in the organization of unified information and legal space of the legal community in the Russian Federation. The theoretical basis of this scientific study was the works of L.V. Turkaev, Kh.Kh. Astamirov and Ya.A. Khaduev on the role of informatization in the legal system of Russia, the problems of modernizing 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).

On the other hand, speaking about the concept of legal activity, it is necessary to understand that there is no single definition for this category, and the dispute about the content of such a definition has been going on for decades. This is explained by the fact that there is no need for a legislative definition of the concept essence, and the number of possible types of legal activity and its subjects is growing in proportion to the development of law.

The most general definition of legal activity states that it is the activity of a subject in the field of law related to the application of legal knowledge and aimed at solving specific practical problems.

Not everything is smooth and unambiguous regarding its types and forms. Only three main types of legal activity will be analyzed in this article since it is impossible to consider the use of information technologies in all its types within the framework of one scientific article.

Effective use of information and communication technologies in legal activity can provide new opportunities for reaching new results of any lawyer's activity. Information technologies, together with properly selected processing and systematization technologies, create the necessary level of work quality.

## 2. METHODS

The modern legal methodology was based on identifying the ongoing social changes, determining the appropriate stage of social development, predicting the emergence of new socio-legal phenomena, their modification, and adaptation of existing legal phenomena and processes to new conditions.



The methodological basis of the article was the general provisions of philosophy, synthesis, induction, deduction, and generalization. A whole range of theoretical and particular methods was used in the process of writing the work: the system and comparative legal method, methods of information processing, logical analysis, information theory, and information communication.

A systematic approach was taken as a basis, based on which information and communication technologies in jurisprudence are considered not as a set of separate parts, but as a system in the structure of modern Russian law. The use of a comparative legal research method was required as part of the analysis of the experience of using the latest technologies in the practice of foreign countries. The study of the Russian method of collecting, analyzing, and processing information using the latest technologies is impossible without considering the European experience, which makes it possible to evaluate and develop effective recommendations in the field of solving problems of informatization of the legal sphere.

### 3. RESULTS

To correctly assess the importance of the use of ICT in legal activity, we will consider how various technologies are used in the implementation of the main types of legal activity: lawmaking, law enforcement, interpretation.

**Lawmaking.** At the stage of drafting regulatory legal acts, the legislator needs to study the relevance of legal regulation of public relations, the practice of applying current legislation, the foreign experience of rulemaking on problems similar to the one that is supposed to be solved.

The legislator first of all studies statistical data on the proposed subject of legal regulation faced with the need to determine the relevance of legal regulation (Lerman, 2013). The first tool that helps in this is the portals of legal statistics, the information on which is constantly updated. In particular, in Russia, one of such portals is the portal of legal statistics of the Prosecutor General's Office [crimestat.ru](http://crimestat.ru), where it is possible to easily study the dynamics of crimes in a particular area, displayed in the form of electronic diagrams, convenient for perception. If necessary, all data in tabular form can be uploaded for further work manually (for example, in the Microsoft Excel spreadsheet editor). This method of



studying legal statistics avoids 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 of the state, reflecting the view of the problem "from the inside". The so-called electronic government can help in this (Lerman, 2013). The concept of e-government implies a change in the internal and external relations of state organizations based on the use of Internet and ICT capabilities to optimize the services provided, increase public involvement in national administration issues and improve internal business processes (Frangulova, 2010). It is enough to create a survey of citizens on the official portal of the legislative institution to get the opinion of citizens about the problem.

This technology has some nuances in use: in particular, it is necessary to enter a preliminary registration of data about a user who wants to participate in the survey so that the data is not intentionally distorted by unfriendly users who vote for the selected answer several times (Gardner, 2016).

To study the practice of applying the current legislation, information is collected from the bodies that carry out such applications. These bodies provide reports for these purposes, which are often in electronic form. When compiling reports, employees of these bodies can use various official archives, some of which are freely available to all citizens of the state. An example of such an archive in the Russian Federation is ras.arbitr.ru – an archive of court decisions of arbitration courts. In addition, information on the practice of applying the current legislation is also published on official portals in some cases: for example, it may be the decisions of the Plenums of the courts, which also simplifies the work of analyzing the practice of applying the legislation.

Foreign experience helps to consider technologies similar to the above, which allow placing some information in an open data format, that is, providing automatic processing, as well as reference legal systems containing the texts of most relevant regulatory legal acts.

The result of lawmaking activity, that is, a regulatory legal act or amendments to an already existing one, is also published on the Internet on official portals for publication. One of these portals in Russia is pravo.gov.ru, where it is possible to find the entire current legislative framework. For the first time, it became mandatory to post legal acts adopted by the Government of the Russian Federation and federal executive authorities on the Internet in Russia in 2003 (Government of the Russian Federation, 2003).

D.A. Saveliev (2018) notes that such tasks as automated annotation and classification of texts, analysis of the use of certain terms in texts at the level of each word,



and not at the document level (analysis of the legal thesaurus), automated extraction of new information, and concluding up to the preparation of documents and answers to questions in natural language, have become possible due to new technologies: statistical processing of text arrays as "big data", machine learning, ontological modeling, computational linguistics.

The possibility of analyzing the use of certain terms in texts (documents) is particularly important, which significantly increases the speed of searching for the necessary information. Machine learning and computational linguistics allow artificial intelligence to select all relevant information with the ability to sort by the date of its appearance, the number of requests, etc. (Byers, 2015). Therewith, these technologies can signal that there is a need to eliminate errors related to violations of the basic rules of legal technology (for example, during context analysis, the machine can detect incorrect use of a term, as well as spelling errors when writing it), which greatly simplifies the process of preparing a regulatory legal act for publication (Tanimov, 2021).

The use of the above means allows quickly studying the problems of legal regulation of a particular object and making appropriate changes in time.

**Law enforcement.** If we talk about the use of ICT in the field of law enforcement, then first of all it is necessary to immediately note the impossibility of complete automation of law enforcement activities. In particular, the most automated judicial decision-making systems will never be able to completely replace human work (Schartum, 2020). There are examples of the existence of electronic courts in the most basic categories of cases in China (Yahoo!finance, 2017), but any ambiguous decision from the point of view of acceptance (for example, related to the need to determine the guilt of the defendant in the investigation of a murder case) can only be considered by a person who can fulfill all the requirements for the procedural form of the trial.

In this regard, it is necessary to distinguish between the concepts of "electronic court" and "electronic justice". The electronic court is a fully automated system of judicial decision-making, whereas the concept of electronic justice assumes that courts use computer technologies 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 (Sas, 2012). In this regard, the concept of electronic justice can be identified rather with the concept of informatization. The latter is actively going on all over the world, and it is connected, first of all, with the expansion of access via the Internet to the archives of court



decisions, as well as with the emergence of opportunities that facilitate the process of filing and reviewing an application: for example, electronic filing of an application. It should be noted that the concepts of "electronic court" and "electronic justice" are nothing but legal fiction, which is one of the features of legal technology in the era of digitalization (Tanimov, 2020).

A wide range of information technologies is also used in the study of an offense or crime for sentencing (Porat & Strahilevitz, 2014). For example, it can be used to obtain information about connections between subscribers and (or) subscriber devices (Enikeev et al., 2007), which allows getting information about the date, time, duration of connections between subscribers and (or) subscriber devices (user equipment), subscriber numbers, other data that allows identifying subscribers, as well as information about the numbers and location of the transceiver base stations (Shurukhnov, 2015). This technology is called billing. The use of billing significantly reduces the time spent on determining the possibility of involvement of specific persons in the commission of an offense (crime).

Photos, videos, and screenshots can be used as evidence in the case and other evidence obtained during the use of information technology by both the body that removes evidence and the injured party if it exists (subject to all procedural conditions). Also, several documents can be provided electronically.

There is an opinion that it is necessary to introduce a mode of recording the progress and results of a public or tacit action of a law enforcement agency to obtain evidence: to preserve the written method, but along with it to allow for fixation exclusively by technical means (Pastukhov, 2015). It seems reasonable since it can reduce the chances of unscrupulous performance of work by law enforcement officers, but meanwhile, the introduction of such a regime requires large financial costs, and often subsequent training of persons who will have to apply these technologies, their use. considering the amount of workload that currently exists for several law enforcement agencies, it seems correct that such a regime can be introduced only if the recording of information is sufficiently automated so as not to increase the time spent by the employee on performing the recorded action.

Specialized software is also increasingly being used (for example, Goslinux for the Federal Bailiff Service of the Russian Federation), the use of which allows for increased security of data transmitted within the framework of this software, and also often reduces financial costs for the arrangement of employees' places.

Automated systems for conducting research are also widely used: most often these systems are aimed at studying a specific type of data and contain a large database of

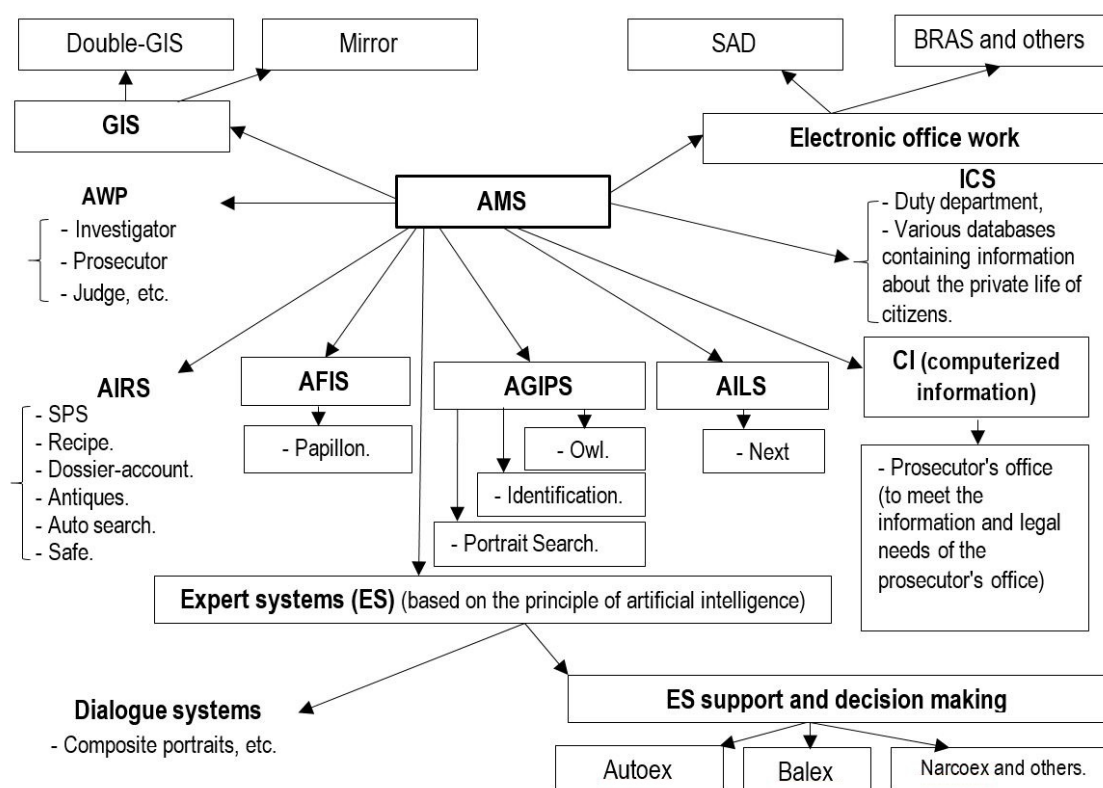




already downloaded samples, which allows them to determine the most important characteristics of the object under study based on their use, which increases not only the speed of such studies but also their quality (Alpaydin, 2014).

For example, the Ministry of Internal Affairs of Russia is implementing a program to create a unified information and telecommunications system of internal affairs bodies, which involves the use of "IBD-Region", which includes 14 automated search engines and records, as well as AIRS "Antiterror", an automated information and search system for biometric identification of a person by facial image (AIRS "OWL"), fingerprint, phonoscopic and ballistic identification systems (AFIS "Papillon", "Phonobase" and ILS "Tais") (Nemtsov, 2007). This significantly increases the disclosure of cases, as well as the overall quality of work. At the moment, such systems are used everywhere wherever it is possible to provide them with material and technical equipment. There are similar programs with similar functionality abroad.

Russian scholar and teacher of the KemSU R.G. Drapezo (2013) developed a detailed classification of information and telecommunication systems used in legal practice.



**Interpretation** of the norms of law is the clarification and explanation of the meaning of legal norms laid down in them by the legislator, the identification of hidden properties and

potentials due to the properties of law, the spirit of a particular legal system. This process is aimed both at understanding the rule of law by the subject of interpretation itself and at explaining its meaning to all interested parties (de Maat & Winkels, 2008).

Interpretation can be official or unofficial. The first is conducted by officially authorized bodies and persons with special knowledge, it is mandatory for use in clarifying controversial issues related to the interpreted rule of law, entails legal consequences. Informal interpretation does not have any legal consequences, and therefore the range of subjects of interpretation is not limited: it can include any public organizations, teachers, or persons without special legal education.

Interpretive activity by its very nature implies a limited potential for automation since it is carried out by a person to interpret any regulatory legal acts and other documents, but several means are used in its implementation that somewhat facilitates this process (Zalnieriute et al., 2020). These are, first of all, the official portals that were mentioned above, from which information is taken about those acts that are planned to be interpreted, and when their results are officially interpreted, they are uploaded to similar portals.

It is also possible to note reference legal systems, through the use of which the interpreter can not only get acquainted with the texts of documents (although not related to official publication), but also with the texts of reports, comments, monographs, and other works, acquaintance with which can help in this type of activity. The first such system in Europe was CREDOC, which appeared back in 1967 (Makarenko, 2010), but it had several significant drawbacks: many documents were contained in a compressed form, a number of the least popular documents were not initially uploaded at all, not to mention comments and monographs. Such shortcomings of reference legal systems have been eliminated in modern times. Documents are often provided with an interactive table of contents for ease of use, the text itself is verified to avoid errors.

It is difficult to overestimate the importance of modern information technologies in legal activity since their use provides for: first, quick and effective access to the legislative framework to obtain the necessary legal information. Secondly, the informatization of lawmaking makes it possible to identify the conformity of the norms of the adopted normative legal act in a short time for compliance with the current law and can serve as a legal link of the newly adopted normative legal act with the basic law. Thirdly, informatization makes it possible to quickly identify not only invalid legislative norms in the course of legal activity, but also effectively prevent inconsistency of normative acts. The main task of the

informatization of legal activity is to create conditions for rapid legal awareness of all participants in legal relations that comply with laws.

#### 4. DISCUSSION

Thus, a large number of various information and communication technologies are used in modern legal activity. They perform tasks of storing large amounts of data, transmitting and processing information, solving specific tasks, which greatly facilitates the work of a lawyer. The main and important function of using the latest information technologies in the legal field is to prepare a legally correct decision. On the other hand, it should be stated that, for all its versatility, the modern information technologies used are very often unable to protect information from unauthorized access to it and build a unified organizational and technological system for performing work in legal activities. To perform these tasks, it is very important that the legal information systems used have flexibility and stability, and should be protected as much as possible from external and internal unauthorized influences, and all problems that interfere with the performance of the tasks should be easily eliminated. Shortly, it is very important to radically solve the problem of the quality, speed, and accessibility of the use of legal databases, to improve the level of qualification of specialists employed in this industry. Therefore, despite the huge number of various information systems of legal activity, the search for new opportunities for the use of information technologies is actively continuing

For example, the Russian scholar M.A. Masyuk (2011) developed the concept of modernizing the legal reference system and electronic data through integration, which, using Lotus Notes/Domino software tools and VML technologies, allows "visually displaying the relationship of documents, as well as analyzing them on compliance with regulatory legal acts" (p. 40). Then the teachers of the Volgograd Academy of the Ministry of Internal Affairs G.M. Semenenko and I.A. Strizhchenko (2015) proposed to introduce an electronic system for registering citizens when applying to the Ministry of Internal Affairs into public circulation, which would allow law enforcement officers to conscientiously treat their official duties. The main concepts of the use of information technology in the framework of the investigation of crimes were reflected in the studies of several Russian scholars, such as T.V. Averyanova, O.Ya. Baev, R.S. Belkin, P.M. Lantsman, A.A. Levy, E.M. Lifshitz, N.P. Yablokov and others. Technologies for conducting investigative and operational measures using computer



devices are considered in the works of Yu.M. Baturin, E.N. Bystryakov, A.S. Shatalov, A.N. Yakovlev, etc.

The use of information and communication technologies in legal activity involves constantly improving techniques and methods of modernization of this type of activity, however, such changes are poorly reflected in the theoretical sciences of law, which causes the need for continuous improvement of legal knowledge in this area, without which attempts to use new technologies will not lead to the expected results. This topic was chosen for reasons of insufficient knowledge of the topic and the urgent need for its consideration in the conditions of modern realities.

Even a very superficial analysis of the use of ICT in legal activity shows that in the course of digitalization, the content of its types and forms changes, legal processes taking place in the modern digital environment accelerate (Schartum, 2016).

Legal science responds quickly to modern requirements. It should be noted that a large amount of work has appeared in connection with the digitalization of law in the last 3-4 years (Kirillova et al., 2020).

Informatization and communication technologies are being actively introduced into the activities of state bodies, such as the Prosecutor's office, courts, the Ministry of Internal Affairs, etc. It is impossible to imagine legal activity today without the use of legal reference systems.

The vitality of this topic is that the list of phenomena studied within it is constantly increasing, which only exacerbates the need for its scientific consideration.

## 5. CONCLUSION

Thus, the following can be stated based on the results of this small study.

ICTs are used in the implementation of all major types of legal activity: lawmaking, law enforcement, interpretation. Therewith, the use of ICT in the activities of state bodies is sanctioned by the state.

ICT is least often used in the implementation of interpretive activities, which is associated with the specifics of its implementation.

The use of ICT in legal activity increases its productivity, contributes to the elimination of minor defects in work.

When planning the use of ICT, it is necessary to take into account the real conditions of legal activity and the possibility of their use.



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