

Artículo de investigación

E-Government: The Role of Legally Significant Messages on the Internet

Электронное правительство: роль юридически значимых сообщений в сети Интернет

Gobierno electrónico: el papel de los mensajes legalmente significativos en Internet

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Abstract

This article is concerned with the features and role of legally significant messages on the Internet within the functioning of e-government. A special role in creating e-government is played by legal documents and legally relevant information available online. Only legally significant information leads to the emergence and development of legal relations governed by rules of law. However, it is difficult to determine legally relevant data in a large information flow. The main objective of this article is to examine the role of electronic communication in operating e-government. While writing this article, the authors used methods of collecting and studying certain facts; generalization methods; methods of scientific abstraction; methods of cognizing regularities. The authors of the article have concluded that legally relevant information available on the Internet is information that has certain forms of external manifestation, entails legal consequences and somehow contributes to governing citizens' legal relations. The authors have suggested their definition of e-government, which is the concept of public administration inherent in the information society. This concept is based on the capabilities of information and telecommunication technologies and the values of an open civil society. E-government consists of

Аннотация

В данной статье рассмотрены особенности и роль юридически значимых сообщений в сети Интернет при работе электронного правительства. Особую роль при создании электронного правительства играют правовые документы и интернет-информация, которая является юридически значимой. Только юридически значимая информация приводит к возникновению и развитию правоотношений, которые регулируются нормами права. Выделить в огромной информационном потоке, юридически значимую информацию сложно. Основная цель исследования – это рассмотрение значения электронных сообщений при функционировании электронного правительства. При написании статьи использовались методы сбора и изучения единичных фактов; методы обобщения; методы научной абстракции; методы познания закономерностей. В исследовании сделан вывод, что юридически значимая информация в сети Интернет - это сведения, имеющие фиксированные формы своего внешнего проявления, влекущие юридические последствия и способствующие тем или иным способом урегулированию правоотношений граждан. Дано авторское

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three main modules: services for citizens; services for institutions and organizations; services for state bodies. When rendering services, the authorities exchange legally relevant e-information with citizens. The use of new Internet technologies by government bodies can decrease costs for maintaining and financing activities of the state apparatus, increase savings of taxpayers and improve the openness and transparency of government bodies.

Keywords: e-government; electronic messages; legally significant messages; information; civil rights; state services.

определение электронного правительства – это концепция осуществления государственного управления, присущая информационному обществу. Данная концепция основывается на возможностях информационно-телекоммуникационных технологий и ценностях открытого гражданского общества. Электронное правительство состоит из трех основных модулей: услуги (сервисы) для граждан; услуги для учреждений и организаций; услуги для государственных органов, при оказании услуг органы власти обмениваются с гражданами юридически значимой информацией в электронном формате. Использование в органах государственного управления новых интернет-технологий может привести к снижению затрат и экономии средств налогоплательщиков на содержание и финансирование деятельности государственного аппарата, увеличению открытости и прозрачности деятельности органов управления.

Ключевые слова: электронное правительство; электронные сообщения; юридически значимые сообщения; информация; права граждан; государственные услуги.

Resumen

Este artículo trata sobre las características y el papel de los mensajes legalmente significativos en Internet dentro del funcionamiento del gobierno electrónico. Los documentos legales y la información legalmente relevante disponible en línea desempeñan un papel especial en la creación del gobierno electrónico. Solo la información legalmente significativa conduce al surgimiento y desarrollo de relaciones legales regidas por las reglas de la ley. Sin embargo, es difícil determinar datos legalmente relevantes en un gran flujo de información. El principal objetivo de este artículo es examinar el papel de la comunicación electrónica en el gobierno electrónico en funcionamiento. Mientras escribían este artículo, los autores usaron métodos para recopilar y estudiar ciertos hechos; métodos de generalización; métodos de abstracción científica; Métodos de conocimiento de las regularidades. Los autores del artículo han llegado a la conclusión de que la información legalmente relevante disponible en Internet es información que tiene ciertas formas de manifestación externa, conlleva consecuencias legales y de alguna manera contribuye a regir las relaciones legales de los ciudadanos. Los autores han sugerido su definición de gobierno electrónico, que es el concepto de administración pública inherente a la sociedad de la información. Este concepto se basa en las capacidades de las tecnologías de la información y las telecomunicaciones y en los valores de una sociedad civil abierta. El gobierno electrónico consta de tres módulos principales: servicios para los ciudadanos; servicios para instituciones y organizaciones; Servicios para organismos estatales. Al prestar servicios, las autoridades intercambian información electrónica legalmente relevante con los ciudadanos. El uso de nuevas tecnologías de Internet por parte de organismos gubernamentales puede reducir los costos de mantenimiento y financiamiento de las actividades del aparato estatal, aumentar el ahorro de los contribuyentes y mejorar la apertura y la transparencia de los organismos gubernamentales.

Palabras clave: gobierno electrónico; mensajes electrónicos; mensajes legalmente significativos; información; derechos civiles; servicios estatales.

Introduction

The concept of e-government is thoroughly developed by researchers in Western Europe and the USA (Twizeyimana, Andersson, 2019). Nowadays government projects and programs like e-Country exist and are being implemented at various stages in almost all countries. One of the goals of these programs is the creation of an "electronic government" (e-Government). "E-government" is only being formed in many countries, while in others it has been successfully functioning for a long time (Sangki, 2018). Thus, e-government projects are actively implemented in the USA, the UK, Canada, Australia, Singapore and other countries.

However, "e-government" has not become a reality with rare exceptions. There are more and more examples of government-lines that are not identical to "e-government" (Lee-Geiller, Lee, 2019). A special role in creating e-government is played by legal documents and legally relevant information available online. Only legally significant information leads to the emergence and development of legal relations governed by rules of law. It is difficult to determine legally relevant data in a large information flow due to the need for prompt decision-making. Thus, it is necessary to consider its main legal characteristics and determine its place, importance and role in the functioning of e-government.

The main objective of this article is to determine the key components of actual information that require legal evaluation, have legal significance on the Internet and represent important electronic messages communicated during the operation of e-government.

At the present stage, it is especially relevant to determine the influence of legally significant information available on the Internet on the legally significant behavior of subjects. Therefore, it is necessary to disclose typical properties of legally relevant information available on the Internet within the activities of "e-government", identify it and fix this definition in the existing legislation.

Literature Review

The value of legal information depends on many criteria: its goals, recipients, content and quality, the conditions and timeliness of its receipt, the degree of its reliability, etc.

Many scholars analyzed legally relevant information posted on the Internet: Gary Chan Kok Yew (2019) considered legal responsibility for publishing data on the Internet and emphasized the need to strengthen responsibility for posting anti-social materials. Parviz Bagheri, Kamal Halili Hassan (2015) analyzed the legal significance of information for online contracts. Fa-Chang Cheng, Wen-Hsing Lai (2012) explored the impact of cloud computing on online legal infrastructure. Catrina Denvir, Nigel J. Balmer, Pascoe Pleasence (2011) studied how young people in the UK use the Internet as a consulting portal to solve legal problems. Václav Janeček (2018) described legally relevant information in relation to personal data of Internet users, etc. Special attention should be paid to legally relevant information available on the Internet since it is an important tool for regulating civil legal relations.

Although some scholars have already used the term "information flow" in their studies, this phenomenon is not in the current scientific circulation and was not given a specific classification. In addition, legal scholars do not have an unambiguous understanding of "legally significant Internet information".

Proposed Methodology

General Description

The research object is the role of legally relevant information available on the Internet in e-government. We used the following methods: the collection and study of certain facts; generalization; methods of scientific abstraction; methods of cognizing regularities.

The method of objectivity allows us to determine the role, meaning and legal status of legally relevant information on the Internet. Using the principle of objectivity, we defined the essence of such a concept as "legally significant information available on the Internet".

The method of pluralism enabled to examine the research object from various perspectives and reveal different properties of legally relevant information on the Internet.

We also used the snowball method to interview Internet users, then these respondents suggested who else could be interviewed on the importance of online information which has certain legal consequences.

Algorithm

Due to the pluralistic approach to determining the legal status of electronic documentation, the most optimal knowledge system was created that reflected objective data on the validity of electronic online messages written by heads of states and governments.

While collecting and studying certain facts, we used methods of interpretation to determine the evidentiary presumption of electronic messages.

The prognostic method allowed us to make scientific predictions about the application of

certain requirements to electronic messages and develop recommendations for law enforcement practices. We also conducted logical-semantic analysis together with the above-mentioned methods, which helped us consider the legal nature of electronic messages used in e-commerce.

Flow Chart

The study was conducted using certain research algorithms that provide scientific results. The research algorithm we used is presented in (Figure 1):

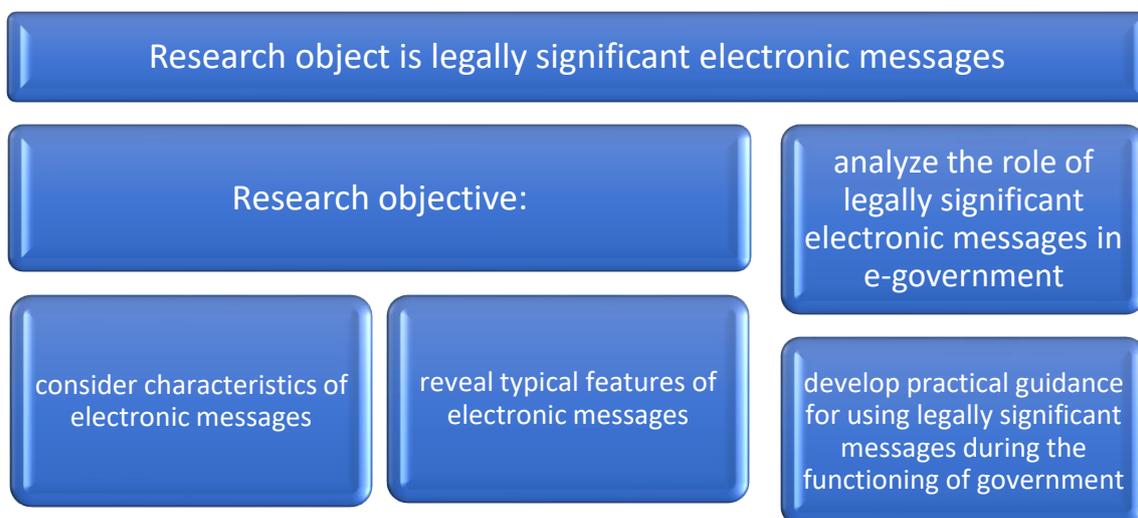


Figure 1. Research algorithm.

Result Analysis

The Internet is "the most important infrastructure of developing information society and a means of social regulation" (Mason, 2008). It is impossible to overestimate the role of the Internet in spreading information and organizing other information processes. Currently, the Internet provides its users with great opportunities to search for legal information presented on the websites of public authorities and administration,

legal-oriented websites, online legal reference systems, electronic legal publications, e-libraries (Aalberts et al., 2009).

The term "information" has multiple meanings (Dannay, 1995). Thus, there is no unequivocal definition of "information". Despite the diverse applied relevance of information, it has common properties and patterns of development. Information properties are presented in the table below (Figure 2):



Figure 2. General information properties.

To determine the concept of a legally significant electronic message, it is necessary to highlight the main features and properties of electronic (digital) information having legal significance. Some experts point out the intangibility of Internet messages, the need for special devices for their removal, as well as their easy modification and destruction (Olson 1999).

While analyzing the positions of different scholars (Schomakers, Lidynia, Müllmann, Ziefle, 2019), we have concluded that the following properties of digital information have a legal value:

- The ability of digital devices to store a significant amount of information;
- The easy copying of the information contained on electronic media;
- The possibility of obtaining information stored in the memory of the chosen device, as well as on the Internet or another communication system;
- The relative and non-obvious content of digital data. For instance, a certain part of the information stored on electronic media is metadata, whose existence remained unknown to

computer users. However, metadata often contain important information about user operations with files.

Recognizing the importance of the above-mentioned characteristics, we should note that the most significant feature of electronic (digital) information is the impossibility of perceiving its content without the use of technical means (Denvir, 2016). The main requirement is the testability of electronic digital information as legally significant, which is defined as the possibility of monitoring the reliability of an electronic document. Some scholars often call the information posted on the Internet an "information flow" (Yew, 2019). Lawyers do not use this concept since they pay attention to the substantive aspect of information and determine it as legally significant. A huge amount of information is posted on the Internet. To determine whether it is legally significant or influences the acceptance and legitimate behavior of the subject, legally significant information available on the Internet should have a number of the following features presented in (Figure 3):



Figure 3. Features of legally relevant electronic information.

Courts can use legally significant electronic messages to establish the truth in the context of conflict resolution, disputable situations related to the need to develop a concerted solution or proof (Kirillova, Bogdan, 2018). Legally relevant information available on the Internet can be defined as data having fixed forms of external manifestation, entailing legal consequences and contributing in one way or another to governing certain relations.

We consider the meaning of legally relevant information posted on the Internet in the framework of "electronic government".

E-government is represented by static websites of government structures that rarely contain any data on the work of government structures and contact information, but let citizens make electronic transactions: paying fines and taxes (Weerakkody et al., 2018).

Imagine a small business owner who receives an e-mail reminder that it is time to renew the existing license. In this case, the reminder will be a legally relevant email. The e-mail indicates the main characteristics of the enterprise in question and links to government network operating applications for updating the enterprise license. Once on the website, the entrepreneur looks at their current license and notices that the specified postal address is outdated. The entrepreneur corrects the address, confirms the changes made and arranges electronic payment to renew the license.

The government database is updated: it includes information about the change of address and renewal of the license, which comes into effect

from the moment the payment is made. The license is fully renewed for another year. After a few minutes, the entrepreneur receives a second email confirming the renewal of the license and the amount of the payment. It also contains a link to a web page to confirm the payment that states basic information about the update, the amount and date of payment. The entrepreneur can also print this information as a "receipt" for their archive (Shaw, 2016).

If the entrepreneur decides to engage in additional activities, they need to study new requirements for licensing. The entrepreneur visits the main web page of e-government and sees personalized information and a command menu for small business owners (information is organized according to the consumer's needs rather than to the government functions). By selecting the appropriate menu option, the entrepreneur receives information on licensing a new business and a direct link to an application for obtaining the license for a new type of activity. This software manages the process of applying for a new license from the beginning to the end and helps the entrepreneur to fill in the gaps about the type of activity, form of ownership, etc. (Lodder, Oskamp 2006).

Based on the responses received, the application adapts the corresponding declaration fields. The logic of such a declaration ensures the validity of the data entered in the above-mentioned fields (for example, the desired length, the correspondence of numerical values). If the participation of government agencies is required at some stages of the process (for instance, inspection), it can also be received online. The relevant department automatically receives a

notification and can use the same software to organize and manage the work of various departments on appointing the date and executors, conduct an inspection and obtain its results.

The entrepreneur receives an automatic e-mail notification when the inspection is complete and can return to the exact place where they stopped last time using the link and continue the process of obtaining a new license. They can also monitor the status of a new license: learn which stages have already been completed, which are still being processed and who is responsible for this work (the entrepreneur, a governmental department or a third party).

When all the stages are completed, the entrepreneur can view the results of processing their application and pay for the services provided online. As a result, they receive a license for a new type of activity, which is delivered in an electronic format and can be printed for the needs of archiving. In this regard, the parties exchange legally relevant information online.

Different experts express various opinions on the concept of "e-government" (Denvir, Balmer, Pleasence, 2011). We consider some interpretations of this term. "E-government" can be defined as follows: "the organization of public administration based on electronic means of processing, transmitting and distributing information, providing services of all state bodies to all categories of citizens (retired employees, workers, businesspeople, public servants, etc.) by electronic means, informing citizens about the work of state bodies with the same means" (Banks, Douglas, 2006).

Other scholars provide the following definition: "e-government is automated government services, whose main functions are as follows: to ensure the free access of citizens to state data, to collect taxes, to register vehicles and patents, to provide the necessary information, to conclude agreements and arrange supplies of materials and equipment the state apparatus needs" (Janeček, 2018). However, these definitions represent e-government as a way to modernize the existing structures and services and not as an independent and comprehensive transformation of the principles of organizing a government. From such a viewpoint, this approach is incorrect because it is not economically justified.

As the provision of state structures with modern information technologies that implement

traditional services, "e-government" means additional budgetary expenditures aimed at the duplication of offline activity in the electronic form. Therefore, it is advisable to consider "e-government" as a concept that aims to increase the efficiency of the state as a whole. The use of new Internet technologies by government bodies can decrease costs for maintaining and financing activities of the state apparatus, increase savings of taxpayers and improve the openness and transparency of government bodies. Thus, e-government is a concept of government that is inherent in the information society. This concept is based on the capabilities of information and telecommunication technologies and the values of an open civil society.

The public life of any country includes three main subjects: government agencies, citizens and commercial organizations. Therefore, e-government should consist of three main modules: services for citizens; services for institutions and organizations; services for state bodies. When rendering services, the authorities exchange legally relevant e-information with citizens.

E-government provides online services for citizens and organizations on a single portal, electronic document management in government and parliamentary structures, a common database for various government structures to prevent the duplication of legally significant information and recurring costs (Warner, 2003). It also comprises an extensive information and telecommunication infrastructure, cryptography systems and other means of protecting the information, including personal data, digital signature, electronic key, smart cards, as well as other means of authorizing access to information and operations with it (Li, 2014).

We should emphasize the main achievements of "electronic government". The opportunity for citizens to directly influence management decisions. For example, if some government structure is going to make changes to the procedure for providing a certain service, it can place information about the expected changes in its policy on its website and invite interested parties to express their opinion on this service and the proposed new policy (van Eechoud, 2003). The feedback received can be used to improve this policy.

It is necessary to improve the quality of services provided by government organizations to citizens. The implementation of state services via the Internet will allow citizens to use them

without leaving home. As a result, the flexibility, speed and availability of government services will increase and costs will be reduced (Xu, Tang, Guttman, 2019).

Citizens will get the ability to receive comprehensive services as different government organizations will be able to interact more effectively with each other. In case of an accident, a person needs to contact several government organizations and state their situation and needs for each of them (Bagheri, Hassan, 2015). If all these organizations had the opportunity to exchange information and integrate their services, a person would have to do the required procedure only once.

The public awareness of the population will increase and citizens will receive up-to-date and comprehensive information on laws, regulations, policies and services. If the data on the existing rules and regulations is available on the Internet, people will have more opportunities to engage in any activity, both personal and professional, safely and within the framework of laws.

Here we list the basic state services that should be provided to citizens and commercial organizations online through the exchange of legally relevant information by e-government (Table 1).

Table 1. E-government services.

State services for citizens:	State services for organizations:
Income taxes: declaration, notice of inspection	Social contributions for employees
Job search services by employment agencies	Corporate taxes: declaration, notice
Social security benefits: VAT	VAT: application, notification
Personal documentation (passport and driver's license)	Company registration
Vehicle registration	Data submission to statistical offices
Application for a construction permit, police report	Customs declaration
Public libraries	Permits from environmental services
Admission to higher education institutions.	Procurements for state needs

To engage citizens in government issues, the following points should be considered when developing ways to use information and communication technologies. The ability to divide the population into those who have skills and tools to use new technologies, and those who do not have them. If citizens do not own the necessary equipment, they are unlikely to influence e-government in any way (Cheng, Lai, 2012). E-government should bring people together, not separate them. Therefore, e-government should be organized in such a way that, on the one hand, the usual ways of accessing government services are preserved for those who need them, and on the other hand, public Internet access is created and educational programs are set up to help citizens master new technologies.

Conclusion

1. E-government is a concept of public administration inherent in the information society. This concept is based on the capabilities of information and telecommunication technologies and the values of an open civil society. E-government consists of three main modules: services for citizens; services for institutions and organizations; services for state bodies. When rendering services, the authorities exchange legally relevant e-information with citizens. The use of new Internet technologies by government bodies can decrease costs for maintaining and financing activities of the state apparatus, increase savings of taxpayers and improve the openness and transparency of government bodies.

2. Legally relevant information available on the Internet can be defined as data having fixed forms of external manifestation, entailing legal consequences and contributing in one way or another to governing certain relations.

3. Features of legally relevant electronic information:

- Comprehensibility;
- Sufficiency for performing legally significant actions and achieving the planned results;
- Reliability;
- Transparency.

4. Basic state services that should be provided to citizens and commercial organizations online through the exchange of legally relevant information by e-government:

- A. Income taxes: declaration, notice of inspection.
- B. Social contributions for employees.
- C. Job search services by employment agencies.
- D. Corporate taxes: declaration, notice.
- E. Social security benefits, VAT.
- F. Personal documentation.
- G. Company registration.
- H. Vehicle registration.
- I. Data submission to statistical offices.
- J. Application for a construction permit, police report.
- K. Customs declaration.
- L. Public libraries.
- M. Permits from environmental services.
- N. Admission to higher education institutions.
- O. Procurements for state needs.

For the needs of further research, it is necessary to analyze the possibilities of more efficient use of electronic legal messages in the operation of e-governments.

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