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# Digitization process in the local self-government: International-legal experience

# Процес цифровізації в органах місцевого самоврядування: міжнародно-правовий досвід

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#### Abstract

Digitalization of the activity of state authorities and local self-government bodies significantly facilitates communication between citizens, the state, and businesses. In modern conditions of globalization and comprehensive digitalization of the service sector, the development and implementation of digital technologies in the field of local self-government are taking place. Due to this, the authors analyzed how the transformational path to digitization in the field of local self-government in Ukraine and abroad is taking place in detail. The purpose of the work is to study the international legal experience of digitalization of local self-government, to determine the main advantages and problematic aspects, as well as the peculiarities of the implementation of digitalization tools municipal administration. The methodological basis of this study is such methods as logical generalization, method of economic analysis, method of comparison, graphic methods, method of theoretical generalization, the system method, methods of positive and normative analysis, metaphysical method, historical method,

#### Анотація

Діджиталізація процесів у органах державної влади та органах місцевого самоврядування полегшу€ комунікацію значно між громадянами, державою та бізнесом. У сучасних умовах глобалізації та всебічної цифровізації сфери послуг, відбувається розвиток і впровадження цифрових технологій в сфері місцевого самоврядування. З огляду на це, автори детально проаналізували те, як відбувається трансформаційний шлях до діджиталізації сфері місцевого самоврядування в Україні та за кордоном. Метою роботи є дослідження міжнародноправового досвіду цифровізації місцевого самоврядування, визначення основних переваг та проблемних аспектів, а також особливостей впровадження інструментів діджиталізації в муніципальному управлінні. Методологічним підгрунтям даного дослідження слугують такі методи, як: логічне узагальнення, метод економічного аналізу, метод порівняння, графічні теоретичного методи, метод узагальнення, системний метод, методи позитивного та нормативного аналізу,

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synergistic method, and intuitive method. As a result of the conducted research, both the national and international experience of digitalization of local authorities were analyzed and the prospects for the development of digital management tools in the near future were noted.

**Keywords:** local self-government bodies, municipal administration, digitalization, digital services, international experience.

#### Introduction

In the conditions of globalization processes and the implementation of digital technologies in various spheres of public life, the transformation of public administration is taking place, which fundamentally changes the institutional environment of local service provision, administration, and management in Europe and the world. And therefore, in this aspect, the fact that the actual state of implementation, consequences, and obstacles faced by local authorities is not yet sufficiently researched in public administration is a source of concern and criticism.

Overall, the digitalization of local government is an important reform trend at the local level, and therefore it is important to clarify the implementation process and its obstacles, as well as to find out how digitalization affects employees and citizens, providing explanations and revealing general relationships between institutional changes, influences and contextual factors of digital transformation. Digitalization affects both ethical issues and issues of retraining citizens and employees of local self-government bodies, as the provision of public services becomes self-service for citizens (United Nations, 2022b).

Therefore, the implementation of innovative information and communication technologies is considered in most countries of the modern world as one of the national priority strategic tasks. Digital technologies, as well as management and public activities related to them, form the digital sphere of modern society, on which, in the current conditions, its economic and innovative potential, social progress, management efficiency, the implementation of democratic procedures, education, the level of human development, national security and defense capability significantly depend on. The country's lagging behind in the rate of growth of goods and метафізичний метод, історичний метод, синергетичний метод, інтуїтивний метод. В результаті проведеного дослідження проаналізовано як національний, так і міжнародний досвід цифровізації локальних органів влади та зауважено на перспективах розвитку цифрових інструментів управління в найближчий час.

**Ключові слова:** органи місцевого самоврядування, муніципальне управління, цифровізація, цифрові послуги, міжнародний лосвіл.

services produced and provided with the help of digital technologies has the consequence of its lagging behind in other industries as well. Conversely, the dynamic development of the digital sphere, with the help of digitalization, is the fundamental basis for increasing the country's competitiveness in the international arena and the quality of life of its citizens, which is achieved in many ways due to the increase in the diversity and scope of providing them with both traditional and new services, using modern digital technologies (United Nations, 2022a).

The wave of new public management in public sector organizational change was based on the themes of disaggregation, competition, and incentives. Although its effects are still being felt in countries that have just started to adopt new ways of managing local government, a number of changes centered on communication and information technology will be critical to the current and next wave of change, and we focus on themes of reintegration, needs-based integrity, and digital transformation.

In such conditions, a new reality is being created in the world, which prompts the governments of various countries to implement technologies both at the local and national levels. And that is why the question of researching the international legal experience of digitalization of local selfgovernment bodies is relevant and necessary.

## Theoretical Framework or Literature Review

The process of digitalization in the sphere of state authorities and local self-government was studied by both domestic and foreign scientists. The potential of digital transformation in the communities of Ukraine was considered by Bilyk (2022). The author concluded that digital transformation is a concrete opportunity to erase the distance between people and the state.



However, the success and timing of the implementation of digitalization depend on many factors at the same time, among which is the study of technical capabilities and requests in communities, strategic planning, and digital education.

Borodin, Piscoha, and Demoshenko considered the problems and advantages of the digitalization of local self-government in their paper (Borodin, Piscokha & Demoshenko, 2021). The authors analyzed the terms "digital transformation" and "digitalization" noted and that transformation occurs in stages and gradually, and organizational culture moves from manual processes to digital systems. At the same time, according to the authors, out of all sectors of public administration, local self-government bodies can benefit the most from investments in digital technologies and improve relations with community residents.

Kvitka considered digital transformations as a modern trend of the periodic cycle of society's development in his work (Kvitka, 2020). The basic definitions of the conceptual and categorical apparatus of digital governance in Ukraine were highlighted by Karpenko, and Namestnik (Kuybida, Karpenko & Namestnik, 2018). In particular, the researchers noted that the formation and implementation of a digital strategy in public governance, and its digitalization is an important area of both scientific research and practical activity, and therefore the formation of a national conceptual and categorical apparatus in the field of digital governance is a complex and responsible task. In addition, the authors justified the difference between digitalization, digital strategy, and IT strategy, and also emphasized that e-government is a component of digital government and not a synonymous name.

Pavlov emphasized the features of the digitalization process of public administration in developed countries (Pavlov, 2021). The author noted that the total integration and introduction of uniform transparent rules for all participants of the system units of state administration and local self-government aims not only to increase the efficiency and quality of digital governance but also to reduce the number of employees.

In their article «Digital transformation of information management of the economy of the EU member states» the authors analyzed the features of the programs used by state bodies and the problematic issues of their implementation (Yakushenko & Shymanska, 2017).

Researchers Schou, Pors (Schou & Pors, 2019) analyzed the digitalization reform in Denmark and the new mechanisms of exclusion that appear at the forefront of the digital agenda, in particular, new knowledge was gained about the impact of digitalization policies and their negative consequences for disadvantaged citizens.

Lethbridge (2015) identifies trends in the digitalization of local government services in Europe, with particular emphasis on Denmark, Finland, France, Italy, Scotland/Great Britain, Germany, Estonia, and Croatia.

Dunleavy, Margetts, Bastow & Tinkler (2006) analyzed the new opportunities of the current period, including opportunities for the transition of integrated, flexible, and holistic management. The authors consider that the goal of a coherent and informed management strategy of the digital era is not simply the achievement of a timelimited or one-time direct incentive to solve social problems, but also the openness of governing bodies to simplicity and automation in routine operations, as well as to flexibility and responsiveness in service provision government monitoring risk environment.

Heuberger & Kuhlmann (2021) analyzed the features of digitalization at the local level. The study concluded that the digital transformation of local government faces some serious obstacles in Germany. Although local one-stop centers are key to the digitalization of local administration, digital transformation is currently limited to the information function of e-government, while communication between local governments and citizens is much less developed, and the transaction function is practically non-existent.

In the article of Perezhniak, Hryshchuk, Menso, Strukova, & Nazarko (2021), the issue of classifying local self-government as a subject of law under private and public law was investigated, and a number of features were identified that are characteristic of both public and private law. Based on the analysis of scientific literature, the main characteristics of the local self-government system have been determined.

#### Methodology

The methods of logical generalization were used during the conducted research. Thus, to determine the prerequisites and features of the



development of digital transformation in local self-government bodies in Ukraine and in international practice, the specified method was used.

To assess the state of population activity in digitalization processes in various regions both in Ukraine and in foreign countries, the method of economic analysis was used. In general, the method of analysis helps to understand the system of state-legal phenomena in its integrity, as well as the processes of transformation in it. This makes it possible to establish the presence of connections between various elements of the system, as well as with the external environment and helps to diversify ideas about the complexity of the functional sphere of local self-government and the role of human and citizen rights and freedoms in this context.

In the study of trends in the development of digitalization processes in different cities and countries, the method of comparison was used. This method serves as a way of generating and refuting theories and hypotheses and seeks to verify the validity of arguments with the help of science and the study of similarities and differences, which significantly helps in the analysis of international legal experience.

Visualization of the results of the economic analysis and evaluation of the values of digitalization indicators in different areas became possible thanks to graphic methods.

Using the method of theoretical generalization made it possible to understand the essence of the digitalization of local self-government.

In order to generalize the influencing factors, advantages, and challenges expected from the digital transformation of local authorities, a systematic method was used. In the most general and broad sense, the word system method means a method in which they are considered as parts or elements of a certain integral formation. These parts or elements, interacting with each other, determine new, integral properties of the system, which are absent in its individual elements. Therefore. when studying digitalization processes in local self-government bodies, it is important to pay attention to the fact that this process must be considered to a certain integrity, consisting of parts, and study it as a system.

Methods of positive and normative analysis are necessary for developing recommendations for improving national globalization processes on the basis of digitalization. In particular, a positive analysis made it possible to identify regularities, normatively define ideals, and formulate basic prescriptions. The normative method made it possible to answer the question: "Is it possible to digitalize local self-government?". A positive answer to the question: "What can be and, most likely, will be the consequences of such digitalization?" What will be the price of digitization for society?

The application of the metaphysical method became relevant for this study, which helped to more fully reveal the "internal" features of digitalization of local self-government and the processes related to its provision. First of all, it is necessary to establish and take into account the specific features and properties of state-legal, as well as social phenomena and processes that have significant practical value.

Objective processes of a historical nature were also taken into account, especially the experience of scientific development of issues, taking into account the foreign experience of legal regulation of the researched process.

The synergistic method made it possible to consider the non-linear development of phenomena and processes belonging to ordered systems or related to them, including state-legal ones for a better understanding of the issues of digitalization of local institutions.

The application of the intuitive method consists of the irrational perception by a person of the essence of the problem or its various aspects. Clarification of various aspects of the phenomenon of digitalization, which are incomprehensible when applying ordinary logical techniques and methods, is determined primarily by the subjective possibilities of research of state-legal phenomena.

# **Results and Discussion**

**1.** Basic principles of digitalization of local self-government.

Digitalization of local self-government is implemented as part of the general process of digital transformation.

It is worth highlighting the following elements of local self-government, which require a separate approach to digitalization policy:

- 1) municipal administration;
- participation of residents in the implementation of local self-government;





direct formation of local self-government bodies by residents.

The benefits of implementing digital transformation tools (GovPilot, 2020):

- Convenience (digital processes provide community residents with access to programs without leaving home).
- Transparency (digital processes promote transparency by automatically notifying citizens of the completion of each step of the process of consideration of issues).
- Effective use of employees' working time.
- Automation of tasks. 4
- Creation of data. 5.
- Unification of subdivisions.
- 7. Improving cyber security.
- Reduces costs.

At the same time, the specified list of advantages is not exclusive and will continue to be explored in the future.

2. International legal experience of digitalization of municipal authorities.

It is worth considering the international experience of implementing digital technologies at the local level in more detail.

In general, three models of the functioning of states and their methods of interaction with citizens are distinguished, which helps to compare the main digital parameters of national and foreign authorities and allows to identify of the best global models.

- Social-market model (EU countries), the state and local self-government bodies play an active role in ensuring the welfare of citizens, mitigating the consequences of economic risks, but the cost of social programs is quite high, which leads to an increase in taxes, the appearance of problems in the labor market;
- Models of state capitalism (Russia, China), the state takes an active economic position, manages municipal entities, participates in the management of many private companies;
- The US model is dominated by competition and market methods, and state intervention is carried out within the framework of liberal ideology (Pavlov, 2021).

In order to build such models, it is necessary:

- determine the stages of development of digital transformations;
- determine the indicators of the development of the digital economy corresponding to the
- develop a list of the most important digitization and digital transformation measures;
- to approve the structure of management bodies that can ensure the implementation of these measures (Council of Europe, 2013).

#### Great Britain

- a government modernization program was developed with an emphasis on creating a system of electronic state and municipal services:
- the government strategy of Great Britain envisages the development and use of all types of electronic services (via the Internet, mobile communications, digital television, and service centers).
- the "Electronic government" system (Egovernment) was created.
- the task of obtaining all public services online by citizens is successfully solved.
- the system of paying taxes via the Internet is functioning, modern information portals for the population, and electronic "universes" are being created (Pavlov, 2021)

#### 2. Canada

- e-government has been implemented (providing services, settlement operations, and interaction with citizens and business representatives takes place online through electronic kiosks or the Internet). This helped establish closer cooperation in the provision of services between the federal level of power and local self-government.
- more open and transparent activities of governments have been implemented (it is possible to get acquainted with the reports and plans of any Canadian government body on its official website) (Pavlov, 2021).

#### India

India seeks to bridge the regulatory gap between the growth of data generation and the need to regulate and use available data. In doing so, India has developed frameworks for both data protection and data sharing, measures to further leverage data by both the government and the private sector for socio-



economic benefits. (Matthan & Ramann, 2022)

### Italy

Implementation of an investigation and intelligence system aimed at improving legality and competitiveness in the Calabria region (designed for the police and justice authorities to define the line between legal and illegal business) (Lindgren, Østergaard, Hofmann & Melin, 2019).

#### Spain

 The Innovation Plan of the City Council, of Málaga is to simplify the structures, processes, procedures, and tasks in the municipality of Málaga, create a culture of good governance, and make better use of resources. (Lethbridge, 2015)

#### Germany

 Digitizes the field of education. It aims to improve the quality of education, promote more active participation of families in the daily routine of children's institutions, develop parental competencies, and develop an integrated approach to working with families and a network of neighbors to support families (Lethbridge, 2015).

We should also consider the successful experience of the digitalization of local self-government in Ukraine. For example, in the city of Rivne Memorandum in connection to E-Demu services was adopted. However, the Soft issue has not yet been resolved, as it is not possible to purchase the software due to legal restrictions (Dezentralezation, 2022).

A comparative legal analysis of models of digitization of local self-government in different countries and in Ukraine confirms that the institutions and mechanisms of state power are determined by different historical, economic, political, and cultural experiences. In each of the models, the functionality of public administration bodies supports the necessary level of regulation of socio-economic processes and ensures sustainable social development (OECD, 2016).

# Conclusions

As a result of the conducted research, an analysis of the international legal experience of the digitalization of local self-government was

carried out, and the following conclusions were drawn:

- International experience shows that the implementation of common rules for all participants in the system units of state administration and local self-government not only increases the efficiency and quality of digital governance but also makes it possible to reduce the number of employees.
- There are various models of implementation of digitalization at the local level in the world. The assessment of the state of implementation of a certain model of digitalization of local self-government and identification of trends in the development of the digital transformation of society in the country is carried out by checking details and indicators, the results of special empirical studies of the market of information, communication and digital technologies conducted by Ukrainian and foreign companies, accounting for rating assessments and by carrying out a comparative analysis for a set of existing models of different countries and indicators and forming an understanding of which of the models is suitable for use and which needs improvement.
- 3) The digital transformation of local self-government in Ukraine is not happening enough, although this area may have significant potential, namely: the transition from paper processes to cloud storage of documents, a wide Wi-Fi network, and mobile devices, faster and more transparent provision of services.
- 4) Among the main factors affecting the digitalization process in foreign countries, the following can be distinguished: features of the market economy, development of civil society, decentralization of power, and the implementation of socially significant projects that contribute to the observance of the principles of social equality and justice.

Regarding further scientific research, it is important to analyze the international experience of providing digital services by local self-government bodies and their development prospects.

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