Management (Montevideo). 2025; 3:136
doi: 10.62486/agma2025136
ISSN: 3046-4048

REVIEW

Digitalisation of administrative services: current status and prospects for citizens

Digitalización de los servicios administrativos: situación actual y perspectivas para los ciudadanos

Anna Shcherbak[1]

[1]Borys Grinchenko Kyiv University, 04212, 13B Levko-Lukianenko Str., Kyiv, Ukraine.

Cite as: Shcherbak A. Digitalisation of administrative services: current status and prospects for citizens. Management (Montevideo). 2025; 3:136. https://doi.org/10.62486/agma2025136

Submitted: 02-02-2024 **Revised:** 05-07-2024 **Accepted:** 31-12-2024 **Published:** 01-01-2025

Editor: Ing. Misael Ron

Corresponding author: Anna Shcherbak

ABSTRACT

Today's world is characterised by a high level of implementation of the latest technologies in all aspects of society and the functioning of the state. This is also reflected in the digitalisation of administrative services in order to provide them in a much faster and more efficient manner than offline. This is the relevance of the study, as the pace of digitalisation is increasing every year and Ukraine has already achieved significant results in recent years. In order to continue moving in this promising direction, it is also necessary to take into account the experience of advanced countries in the digitalisation of public services, so that the development and electronic provision of administrative services can be even more comprehensive and thorough. In this regard, the purpose of the research is to analyse the current state of digitalisation of public services in Ukraine, identify key achievements and their detailed description, identify benefits for citizens and challenges faced in the course of digitalisation, analyse the situation with the adaptation of digitalisation of administrative services to the challenges of war, gain a deep understanding of the experience of foreign countries and provide recommendations for Ukraine based on the information received, as well as summarise further prospects for the digitalisation of administrative services for Ukrainian citizens. To achieve this goal, we used the following methods of scientific knowledge, namely: general philosophical method, descriptive method, method of system analysis, synthesis, dialectical method, and comparative method.

Keywords: Digitalisation; Administrative Services; Public Administration; Information Society; Information Technologies; Communication Technologies.

RESUMEN

El mundo actual se caracteriza por un alto grado de implantación de las últimas tecnologías en todos los aspectos de la sociedad y del funcionamiento del Estado. Esto se refleja también en la digitalización de los servicios administrativos con el fin de prestarlos de una manera mucho más rápida y eficaz que fuera de línea. Esta es la relevancia del estudio, ya que el ritmo de la digitalización aumenta cada año y Ucrania ya ha logrado resultados significativos en los últimos años. Para seguir avanzando en esta prometedora dirección, también es necesario tener en cuenta la experiencia de los países avanzados en la digitalización de los servicios públicos, de modo que el desarrollo y la prestación electrónica de los servicios administrativos puedan ser aún más completos y exhaustivos. En este sentido, el propósito de la investigación es analizar el estado actual de la digitalización de los servicios públicos en Ucrania, identificar los logros clave y su descripción detallada, identificar los beneficios para los ciudadanos y los retos a los que se enfrentan en el curso

de la digitalización, analizar la situación con la adaptación de la digitalización de los servicios administrativos a los retos de la guerra, conocer en profundidad la experiencia de los países extranjeros y proporcionar recomendaciones para Ucrania basadas en la información recibida, así como resumir las perspectivas futuras de la digitalización de los servicios administrativos para los ciudadanos ucranianos. Para lograr este objetivo, hemos utilizado los siguientes métodos de conocimiento científico, a saber: método filosófico general, método descriptivo, método de análisis de sistemas, síntesis, método dialéctico y método comparativo.

Palabras clave: Digitalización; Servicios Administrativos; Administración Pública; Sociedad de la Información; Tecnologías de la Información; Tecnologías de la Comunicación.

INTRODUCTION

The digitalisation of administrative services is a pressing issue in Ukraine today. In recent years, there have been significant developments in this area, with Ukraine becoming one of the leading countries in the digitalisation of administrative services. This is reflected in the positive impact on the efficiency of administrative service delivery and citizen satisfaction in response to the reduction of service delivery time and the preservation of the quality of service delivery. At the same time, society's demands for the speed and convenience of public services are increasing, and therefore the state needs to look for new ways to improve and accelerate digitalisation, taking into account the experience of other countries.[1]

In general, it should be noted that digital technologies will open up new opportunities for both government agencies and society itself. Many processes are being optimised and the level of bureaucracy is being reduced. At the same time, the distance between the government and society is shrinking. It is worth noting that although the level of digitalisation of administrative services in Ukraine is quite high, the provision of administrative services by Ukrainian authorities is not yet sufficiently adapted to the requirements of the modern information society, as many procedures remain time and resource-consuming and require the physical presence of citizens, which makes it difficult for regional and remote residents to access services.[1]

Therefore, we consider it appropriate to add that the development and active implementation of the latest communication and information technologies that will help improve the level of online service provision without additional visits to offline institutions remains a priority. At the same time, it is important to improve the tools for identifying citizens, which in turn will ensure the security of personal data of each citizen.[2]

Thus, the digitalisation of public services means the transformation of traditional government functions, processes and service delivery methods through the integration of digital technologies.[1] It involves the use of tools such as online platforms, mobile applications, artificial intelligence and cloud computing to allow citizens and businesses to access public services in a more efficient, transparent and convenient way. This kind of transformation primarily focuses on automated workflows, reducing direct reliance on physical documents, and providing round-the-clock access to services such as tax returns, medical records, business registration, and utilities.[3] Digitalisation, by its very nature, aims to increase citizen engagement and reduce the bureaucratic component, which is inefficient and ineffective. At the same time, digitalisation promotes inclusive governance by making public services more accessible to a much wider audience, including those living in remote areas.

In summary, the digitalisation of public services is not just about using technology, but about a paradigm shift in governance to create smarter, more responsive and citizen-centric systems.[4] Due to the focus of the research article, it is worth emphasising that the digitalisation of administrative services also contributes to reducing corruption and increasing public trust in state administrative bodies.[5] Digitalisation is also a catalyst for electronic document management, improvement of its main tools and mechanisms, and analytics. Taken together, this contributes to the state's ability to conduct comprehensive analytical activities and plan future processes with correspondingly better and more efficient management and resources.[6]

However, like any other phenomenon, the digitalisation of administrative services is also accompanied by the emergence of problems and obstacles. These include the lack of standardised approaches to the implementation of digital solutions, the obvious low level of staff qualifications, as well as the absence of a single digital space for interaction between different authorities and the complexity of public service delivery.[7] Therefore, we can confidently say that the digitalisation of administrative services in Ukraine is a rather difficult process, which we consider very important in terms of its efficiency, accessibility and effectiveness.[3] In addition, we note that digitalisation meets the basic needs of modern society. Achieving success in this area requires a comprehensive approach, active interaction between government, business, and citizens, as well as addressing relevant technical, organisational, and legal issues.

Another important point is the fact that Ukraine has made significant progress in the digitalisation of administrative services while at war. And despite all the difficulties, the new rankings are being conquered.[8] Thanks to the coordinated work of the team of the Ministry of Digital Transformation of Ukraine, government

agencies and IT companies, Ukraine has come a long way in a few years, which others have taken decades to complete. In 2024, Ukraine was ranked 5th in terms of digital public services and 1st in terms of E-Participation, the readiness of citizens to engage in government processes through online platforms.[9] However, government agencies face an important task of improving the level of online administrative services and providing even more benefits to citizens.

The purpose is to analyse the current state of digitalisation of public services in Ukraine, identify key achievements and their detailed description, determine the benefits for citizens and challenges faced in the course of digitalisation, analyse the situation with the adaptation of digitalisation of administrative services to the challenges of war, gain a deep understanding of the experience of foreign countries and provide recommendations for Ukraine based on the information obtained, as well as summarise further prospects for the digitalisation of administrative services for Ukrainian citizens.

METHOD

In the course of the research, to achieve this purpose, we used the following methods of scientific knowledge: general philosophical method, descriptive method, method of system analysis, synthesis, dialectical method and comparative method. The leading method of this scientific research, which contributed to the obtaining of scientifically significant conclusions, is the general philosophical method. This method was used at all stages of the study, as it contributes to a logical increase in the significance of the data obtained and the comprehensive formation of the overall situation with the digitalisation of administrative services in Ukraine. The general philosophical method helped us understand the main benefits and challenges of digitalising public services.

The descriptive method, by its very nature, was important in identifying the characteristic features of the digitalisation of administrative services and its key benefits for the population. The systemic analysis method allowed us to consider the current state of digitalisation, analyse its key achievements and provide a detailed description of them. This helps to create a holistic picture of the study and identify important aspects that will be needed in further research.

Using the systemic analysis method, we analysed the benefits for citizens and the obvious challenges that digitalisation presents. Using a combination of systemic analysis and synthesis, we analysed the overall situation with the adaptation of the digitalisation of administrative services to the challenges of war. Taken together, these methods also helped to identify the prospects for the digitalisation of administrative services for Ukrainian citizens. At the same time, the synthesis method assessed the importance of the influence of the experience of foreign countries and the formation of a further strategy for the digitalisation of administrative services.

The dialectical method reveals the peculiarities of the blurred framework of legal regulation of the digitalisation of administrative services. In combination with the systemic analysis method, we determined the extent to which this issue is regulated and concluded that the authorities should pay significant attention to this issue at the state level, as the future development of e-services and the welfare of the population depend on legal certainty and the absence of a vague legal framework. Undoubtedly, efforts to adapt the legislation to the realities of today are being actively pursued, but there are problematic aspects that need to be addressed. The dialectical method contributed to the substantiation of the practically significant conclusions, which generally increases their further practical applicability.

The comparative method of scientific knowledge helped to identify the characteristics of the leading countries in the digitalisation of public services. We identified South Korea, Denmark, and Estonia. Using this method, it was possible to identify potential recommendations that could be implemented in Ukraine.

RESULTS AND DISCUSSION

Current status of digitalization of public services in Ukraine: benefits and challenges

The quality of life of citizens depends on an important component of modernity, namely the optimisation of administrative services and their digitalisation. Undoubtedly, as we have already mentioned above, recent years have been a period for Ukraine when significant innovative changes in the provision of administrative services took place – electronic services were created to provide online services to citizens. In general, the following online services have been actively implemented: business registration, obtaining relevant certificates, and processing various documents, which in turn reduces the time and, quite obviously, the effort required to resolve administrative issues.

Convenience and accessibility – these concepts mean different things to each citizen, and therefore, at the level of ensuring convenience and accessibility within the framework of providing electronic administrative services, this is manifested in the ability to open a sole proprietorship at any time instead of wasting time waiting in line at the ASC or saving time on trips to get the necessary documents. These aspects also apply when citizens are abroad or in the temporarily occupied territories. That is, citizens can use electronic services without having to be physically present. This is especially important for people with disabilities, for those with

permanent or temporary disorders of the musculoskeletal system. These aspects are of utmost importance, as they help to save time and reduce the cost of transport services (especially when it comes to rural residents).[10]

Reducing the number of corrupt practices is digitalisation that creates special conditions where tolerance for corruption is zero. And this contributes to the better development of government processes. After all, the services provided online, by their very nature, do not require visits to various authorities, delayed processes or peculiar "arrangements".[5] And it is quite logical that in combination this leads to a reduction in corruption-related situations. All corruption risks are levelled at the data processing stage. Therefore, the further digitalisation of new areas and services will contribute to a better situation in combating corruption. A striking example to confirm the above is the fact that the economic and anti-corruption effect of the two years of implementation of the Diia service is UAH 16,3 billion.[10]

Coherence and efficiency – in general, these two aspects become quite visible when internal government processes and public service delivery are transformed into digital ones. As a result, the state functions much more efficiently and effectively, and at the same time, we can observe a decrease in the level of bureaucracy. In other words, digitalisation acts not only as a kind of "bridge" from offline to online services, but also as a transformational driver for improving such processes. An example of this is the sole proprietorship registration mechanism, which is currently considered the fastest in the world in terms of business registration as such.

This mechanism operates without a third party as a back-office official. After all, all the necessary checks of the application and the creation of a new entry in the Unified State Register are performed automatically. Coherence is directly reflected in the work of various government agencies. This means that situations where the same actions are performed by different bodies are levelled out. Whereas with paper-based processes, there is a risk of duplication of information or data errors.[11]

Reducing the financial burden has a direct impact on labour costs, repair of necessary premises, utility bills, and reduced financial resources for administration and paper supplies. If you need to update existing services, it is much faster online. Maintaining transparency between citizens and government agencies, as there is no need for physical interaction with various officials.[12] Within the framework of the research, it is obvious and quite logical that today, society also faces a number of challenges in the course of digitalisation of administrative services. These challenges hinder the active development and improvement of the process of providing online administrative services. A fairly widespread problematic aspect is unequal access to such services, especially in those areas, such as villages and urban-type settlements, where the necessary infrastructure, such as a stable Internet connection and computer equipment, is often lacking.[13]

In addition, the low level of digital literacy among some categories of citizens limits their ability to use electronic services. This is especially true for older people who are unable to provide themselves with appropriate modern means of communication and master the mechanisms for obtaining online services. According to UNESCO, as of 2021, only about 40 % of the adult population of Ukraine had the basic digital skills necessary to use electronic services. In response to this data and in order to overcome this problem, the Ukrainian authorities have introduced a number of programmes aimed specifically at improving digital literacy. One example is the introduction of the national online platform Diia. Digital Education, whose main task is to teach citizens digital skills.[10] However, we can note that given the low involvement of the population, the results of such initiatives remain limited.

We also note the importance of taking into account the issues of data protection and security, privacy and confidentiality, as the increase in online interaction with the state causes an increase in the risks of fraud, cybercrime and leakage of confidential information of citizens as such. That is why Diia's specialists are actively implementing certification according to the international process security standard ISO 27001. This is what allows us to respond in a timely manner to cybersecurity threats, both in terms of technical aspects and protection against various types of attacks – intrusions, data destruction, or denial of access to registers.[14]

In addition, it is important to note that the level of financial support at both the state and local levels also has a great impact on the development and implementation of digitalisation.[15] After all, significant financial support is required to implement the necessary infrastructure to support digital platforms. At the same time, financial resources are allocated to the country's security and defence needs in times of war. However, with the support of partners, many initiatives and projects find funding.[10]

An important aspect that needs to be improved is the legal side. In this case, we are talking about a significant number of laws and regulations. Their revision and adaptation to the current situation requires coordination with various stakeholders, including stakeholders at the cross-sectoral level.[10] Therefore, such actions to update the legislation should be carried out comprehensively.

It is worth noting that despite such legal barriers, which do not always take into account the current state of digitalisation of administrative services, Ukraine is taking steps to bring its legislation in line with the current state of electronic administrative services. For example, the Law "On electronic identification and electronic trust services" [16]was adopted. This Law defines the legal and organisational framework for electronic identification and electronic trust services, the rights and obligations of the subjects of relations

in the areas of electronic identification and electronic trust services, and the procedure for exercising state control over compliance with the requirements of the legislation in the areas of electronic identification and electronic trust services.[16]

Modern public administration is not possible without the active use of information and communication technologies to provide administrative services. This is what guarantees the transparency and efficiency of government agencies. Therefore, we consider it necessary to analyse the key achievements in the digitalisation of administrative services.

Without a doubt, the largest key achievement was the Diia platform, which currently offers a wide range of services, including registration of individual entrepreneurs, payment of taxes, receipt of electronic documents, obtaining online certificates, etc. In total, more than 125 services are already available on the Diia portal for both individuals and businesses. While the Diia app contains more than 30 available services. However, the Ministry of Digital Transformation is not stopping there and plans to expand the existing services in the future, while integrating them with other public and private systems to create a single source for communication with the state.[17]

An equally important achievement is the introduction of a strategy to improve cybersecurity and ensure the protection of personal data. As we have stated, these are problematic aspects of digitalisation.[12] At the legislative level, it is planned to introduce completely new security standards, as well as training programmes for civil servants on cyber defence. It is also important to add the need for international cooperation in ensuring data security in particular and digitalisation in general.

Another important achievement was the aforementioned opening of a sole proprietorship, which takes a few minutes online and requires only a few simple steps, which significantly saves time and resources and is a convenient tool for citizens.[18] Among the key achievements, it is also worth considering the mechanism for obtaining e-residency status for foreigners recently adopted by the Cabinet of Ministers of Ukraine. This means that foreigners who want to start a business in Ukraine can now do so online without having to be physically present. All you need to do is fill out an application either in the application or on the uResidency portal, and it will take up to 10 minutes at most.

After a quick check, the resident will receive a CEP at the consulate without a visit to Ukraine. Then, the foreigner can open a sole proprietorship in the app or on the Diia platform, and further interactions will be carried out on an automatic basis.[18] Such a mechanism is a revolutionary and important step towards budget revenues. For example, in Estonia, such a mechanism has been operating for more than 10 years and generates millions in taxes every year. Currently, this mechanism is available only to citizens of a few countries, namely: Pakistan, India, Slovenia and Thailand. At the first stage, it is planned to involve approximately 1000 e-residents. In the future, more countries will be added.

The current state of digitalisation of administrative services is about implementing innovative solutions in the unique conditions of war. Undoubtedly, the Ministry of Digital Transformation has changed the vectors of its work and is working in crisis situations for the benefit of the country.[19] However, despite all the difficulties, digitalisation work continues and is bearing fruit. It is undeniable that during the full-scale invasion, the number of online services that meet the realities of war has increased significantly, and therefore we can confidently note the following:

1. The functioning of the ePerformance programme is a special programme designed for those who have lost all or part of their income due to the hostilities and the suspension of their business activities. As of now, the service has been discontinued.
2. Restoration of documents that were lost due to the hostilities.[8]
3. Providing grants to support veterans and their families, businesses affected by the war, etc. Applications for grants can be submitted online.
4. Monthly payments of financial assistance to internally displaced persons.
5. Introduction of a mechanism for compensation for destroyed or damaged property.
6. Creation of appropriate registers for compensation for various types of losses, which will be the basis for compensation from the aggressor in the future.[8]

Analysis of the experience of foreign countries and further prospects for the digitalization of administrative services for Ukraine

Ukraine's further development in the direction of digitalisation is impossible without taking into account the experience of foreign countries that are considered to be at the forefront of digitalisation of public services. As of today, this issue affects every country, but we believe it is worth paying attention to the countries that are ranked first in the Online Services Index, while Ukraine is ranked fifth.

We suggest starting with South Korea, which today has the status of a leading global centre for innovative technologies. Due to the progressive development of the ICT sector with the world's fastest internet speeds and tech-savvy customers, South Korea is a hub for many well-known digital companies, including Samsung, Naver,

SK, and LG.[20] Moreover, although the country is at the forefront of digitalisation, significant financial resources are allocated at the state level to invest in innovative technologies – primarily in next-generation networks, advanced semiconductors, artificial intelligence systems, quantum computing, big data and cybersecurity. These latest developments will have a positive impact on the civilisation of not only public services but also the development of the digital sphere in general. Therefore, it is not surprising that there is a high level of domestic competition, but even this does not prevent leading foreign companies from successfully doing business in South Korea, using advanced technologies and innovative business models.[21]

In general, back in 2021, the country's digital government strategy for 2021-2025 was announced at the state level, focusing on the priority of intelligent services, their development and provision, promotion of data-driven public administration, and building an inclusive digital infrastructure.[21] Implementation of intelligent public services – to achieve this goal, it is necessary to create certain platforms where virtual assistants based on natural language will be used.[22] Another important component is the fully digitised data exchange with MyData and the availability of digital certificates. The introduction of convenient and secure verification and authentication technologies, such as blockchain and the Internet of Things (IoT), is also a key element in achieving this goal, and we can also mention the introduction of a single application mechanism and proactive notifications.

Promotion of digital government – due to the defined goal, it is planned to create separate government centres for analysing data sets, conducting certain data analysis projects, which in combination will contribute to informed policy-making and the use of such data for disaster prevention and response. It is also expected that public data and application programming interfaces will be opened with mandatory cooperation with the private sector. Also, as part of the strategy and to achieve this goal, the use of cloud computing remains advisable, which will have a positive impact on the economic situation and economic efficiency, as well as on the availability and high level of trust in government information systems.[23]

Strengthening the foundation of digital transformation – in this area, the government is actively developing online services for inclusive groups and vulnerable populations, actively promoting the development of public-private partnerships, and updating the existing legislative framework in line with digital ethics and digital rights. Special attention is paid to cooperation with international companies and governments of other countries.[22]

To summarise, the main opportunities for digitalisation in South Korea are as follows: a developed home-based tax system, rapid exchange of social security data, and an expanded public procurement system. In turn, the effectiveness of e-public administration is achieved through an integrated and national financial information system, an education information system, a human resources support system and digital education, and an information network system of local governments. As for the digital infrastructure of e-government, South Korea has established an electronic document management system, an electronic signature and electronic seal system, and a fully computerised information and telecommunications network integrated throughout the government. And perhaps the most important achievement in the area of electronic service delivery is Digital Government, where artificial intelligence is actively used to process information about citizens, process their requests and provide electronic consultations in a high-quality and fast manner.[23]

Another country that is one of the leaders in the digitalisation of administrative services is Denmark. In Denmark, every business and every citizen has personal electronic accounts where they can communicate directly with public authorities on current issues in real time. Back in 2015, Denmark introduced a law that allows all citizens to communicate with the authorities only via the Internet. NemID: Unified digital identification for access to all public services and digital signing of documents. At the same time, Internet access was already more than 95 % and every citizen had a digital passport.[24] Moreover, all government agencies and municipalities are connected and operate in a single network, which guarantees timely provision of services to citizens and fast processing of requests.

Businesses have ample opportunities to pay taxes online, conduct various necessary online transactions, obtain relevant documents and certificates online, and submit various reports in accordance with their obligations to the state. It is important to add that sending documents online saves time, as it takes a few minutes, and thus, using such mechanisms, significant financial resources are saved annually.[24] Undoubtedly, Denmark is an exemplary country with a high level of digitalisation of public services, which is reflected in the following indicators – 84.2 out of 100 points in the digitalisation of public services for citizens and 88.7 out of 100 points for businesses.[25] The country also has a high level of trust in electronic services and government in general, which is why both citizens and businesses are positive about innovations and even greater interaction with digital mechanisms and tools.

However, although the average digitalisation rate in the country is high relative to other EU countries, internal dynamics are forcing a review of existing practices. Although 75,3 % of SMEs have at least a basic level of digital intensity, which is higher than the EU average,(57,7 %) this indicator shows very limited annual growth over two years, indicating that further efforts are needed to ensure that the target of 90 % by 2030 is achieved.[26] There is also a trend towards the introduction of artificial intelligence in enterprises, where the EU's overall

figures are the highest, but compared to 2022, this figure has decreased in Denmark itself. The experience of Estonia is important in the development of digitalisation of administrative services. 2024 was the year when Estonia became one of the leaders in the digitalisation of government processes and announced its next stages. As of today, e-Estonia is actively operating, meaning that all public services are fully digitised. Moreover, voting services and digital tax filing are also digitised.[27]

Digitalisation is based on the concept of the "personal state" (Estonian: personale riik), which is based on a new level of trust and cooperation between citizens and the state. This concept is not only a solution to the current problems of the population and a response to meet their needs, but also a tool for preventing and anticipating such needs in order to respond even faster. In the course of implementation of this concept, an unprecedented situation may be created when new standards will be used as the basis for interaction with the population.[28] Moreover, such standards will be applied to approaches to the digitisation of public services. However, along with these advantages, there are obvious concerns about the principle of privacy and inviolability of private life and the preservation of citizens' autonomy in an increasingly digital world.

In general, the implementation of the above concept requires the following important steps. The first is to develop a maturity model of public services based on the characteristics of "personal state" services and integrate these characteristics into the Estonian Digital Society Strategy 2030 [29]by the end of 2024.[28] However, the legal framework should also be prepared and potential legal limitations identified in the course of implementing this step.

By the end of 2025, it is already planned to complete the development of approximately 10 services that will directly reflect the vital needs of the population, separately for citizens and separately for 10 services for entrepreneurs. At this stage, it is also planned to further develop and improve interoperable central service channels.[27] As is known, the concept of the "personal state" is planned to be decentralised, but there will be certain categories of tasks that will be assigned to the newly created Ministry of Justice and Digital Affairs in the government.[27] Potentially, this will be a real revolution when all the processes of bringing the legislation in line with the current conditions are completed, and problematic issues with privacy are resolved.

The use of artificial intelligence to process requests in the provision of various administrative services, as exemplified by South Korea and Denmark. The use of artificial intelligence systems can be a breakthrough in the provision of electronic services. As AI is being implemented on the Liquio GovTech platform for launching public services, this implementation will become even more intensive. The process is as follows: the terms of reference for the digitalisation of a service, which was previously developed by a business analyst, is then analysed by AI and used to build a draft business process on the platform. Then a low-code developer can use it or edit it if necessary.[10]

At the same time, it is potentially possible to create so-called AI assistants that would accompany you at every stage of obtaining a particular service online. It is also worth noting that artificial intelligence technology is currently used on the Diia. Signature portal, where biometric data is used to verify a person's identity, meaning that the system can compare a citizen's face with the photos contained in state registers. Thus, the introduction of artificial intelligence is a priority for the Ministry of Digital Transformation of Ukraine, and its implementation should take place at all levels of interaction with the state. Accordingly, the goal is to become one of the top three countries in terms of AI development by 2030, according to the Kitsoft.[10]

Optimization of internal processes – in this aspect, the prospects for government digitalization can be assessed, where the focus is on making strategically important decisions. These decisions were comprehensively thought out, and the laws adopted covered all important aspects - a large amount of data must be analysed and all risks taken into account. That is why an important step is to create think tanks that will communicate directly with the government and provide appropriate access to the data set. Analytics should become the basis for important government decisions.[30]

Following the example of Estonia, it is worth expanding the scope of services that can be provided online, as well as improving existing mechanisms to predict potential public requests and provide faster feedback.[31]

In the future, Diia may soon offer the following services that will further strengthen the platform and meet the needs of the population. These include:

1. Adding a weapon permit, which will contain general information about the weapon, all available permits for it, and when it will be possible to obtain an extract from the register, provided that the weapon is registered with the person;
2. The possibility of multi-sharing, when a person can send copies of several documents to different institutions. That is, instead of the paper version, electronic versions can be sent.[10]
3. Expanding services in e-Entrepreneur to further simplify doing business. Work is also underway to obtain permits and licences and digitise them.
4. Notification of communication problems – this need arose due to power outages. This service will allow the public to report such problems, and the relevant regulator to respond more quickly to the situation.[32]

5. Expanding the capabilities of Diia. Signature' for legal entities – currently, this service is available for individuals, and in the near future, this service will become available for businesses.
6. Implementation of the e-Accounts service to check the legality of tobacco or alcohol.[10]

CONCLUSION

Based on the analyzed data, it can be summarized that the digitalization of administrative services is the transformation of traditional government functions, processes, and service delivery methods through the integration of digital technologies. The main advantages of active digitalisation of administrative services include the following: convenience and accessibility; reduction of corruption; coordination of state bodies and efficiency; reduction of the financial burden; and transparency between citizens and state structures.

As of today, society also faces a number of challenges in the course of digitalisation of administrative services, including: unequal access to such services, especially in those areas such as villages and urban-type settlements, which often lack the necessary infrastructure; low level of digital literacy among some categories of citizens; data protection and security issues, privacy and confidentiality; insufficient financial support at both the state and local levels; and legal barriers. To summarise, the biggest key achievement was the Diia platform, which currently offers a wide range of services. An equally important achievement is the introduction of a strategy to improve cybersecurity and ensure the protection of personal data. Another important achievement was the opening of a sole proprietorship, which takes a few minutes online. The mechanism for obtaining e-residency status for foreigners, recently adopted by the Cabinet of Ministers of Ukraine, is also worth considering as a key achievement.

Further development of Ukraine in the direction of digitalisation is impossible without taking into account the experience of foreign countries that are considered to be at the forefront of digitalisation of public services. South Korea today has the status of a leading global centre for innovative technologies. The main opportunities for digitalisation in South Korea are as follows: a developed home-based tax service system, rapid exchange of social security data, and an expanded public procurement system. In turn, the effectiveness of e-public administration is achieved through an integrated and national financial information system, an education information system, a human resources support system and digital education, and a local government information network system. Perhaps the most important achievement in the field of electronic service delivery is Digital Government, where artificial intelligence is actively used to process information about citizens, process their requests and provide electronic consultations in a high-quality and fast manner.

In Denmark, every business and every citizen has personal electronic accounts, where they can communicate directly with public authorities on current issues in real time. Since 2015, Denmark has introduced a requirement that all citizens can communicate with the authorities only via the Internet. NemID: Unified digital identification for access to all public services and digital signing of documents. Businesses have ample opportunities to pay taxes online, conduct various necessary online transactions, obtain relevant documents and certificates online, and send various reports in accordance with their obligations to the state. There is also a trend towards the introduction of artificial intelligence in businesses.

The experience of Estonia is important in the development of digitalisation of administrative services. Digitalisation is based on the concept of a "personal state" (Estonian: personale riik), which is based on a new level of trust and cooperation between citizens and the state. This concept serves not only as a solution to the current problems of the population and a response to meet their needs, but also as a tool for preventing and anticipating such needs in order to respond even faster. Based on the experience of foreign countries, the following recommendations can be made for Ukraine in the area of digitalization of administrative services: active use of artificial intelligence to process requests for various administrative services; optimization of internal processes; expansion of the list of services that can be provided online; and improvement of existing mechanisms to predict potential requests from the public and provide faster feedback.

REFERENCES

1. Prokopencfvdgqweko L. Local Knowledge Electronic Resources Development as a Priority Field of Ukrainian Public Libraries Activity. Ukrainian Journal on Library and Information Science. 2023;11:82-95. Available from: https://doi.org/10.31866/2616-7654.11.2023.282666

2. Likarchuk N, Velychko Z, Andrieieva O, Lenda R, Vusyk H. Manipulation as an element of the political process in social networks. Questiones Politicas. 2023;41(76):769-779. Available from: https://doi.org/10.46398/cuestpol.4176.45

3. Filipchuk H. The functioning of Ukrainian public administration under a state of war. Ubezpieczenia Społeczne. Teoria i Praktyka. 2022;155(4):1-11. Available from: https://doi.org/10.5604/01.3001.0016.2802

4. Bondarenko S, Liganenko I, Mykytenko V. Transformation of public administration in digital conditions: world experience, prospects of Ukraine. Social Development and Security. 2020;10(2):76-89. Available from: https://doi.org/10.33445/sds.2020.10.2.9

5. Zykova O. Digitalization of public services in Ukraine creates a powerful anti-corruption effect. 2024. Available from: https://www.kmu.gov.ua/news/tsyfrovizatsiia-derzhavnykh-posluh-v-ukraini-stvoriuie-potuzhnyi-antykoruptsiinyi-efekt-olha-zykova

6. Kolesnikova K. Digitalization of public services in Ukraine: successes and challenges in implementing public reforms. Philosophy and Management. 2024;1:18-27. Available from: https://doi.org/10.70651/3041-248X/2024.1.03

7. Storozhenko L. Digitalization of Public Governance in Conditions of Netocratization of Society: The Legislative Framework of Ukraine. Copernicus Political and Legal Studies. 2023;2(1):30-37. Available from: https://doi.org/10.15804/CPLS.2023103

8. Chukut S, Karpenko Y. Organization of the provision of electronic services in Ukraine in wartime conditions. Public Administration and Regional Development. 2023;20:589-613. Available from: https://doi.org/10.34132/pard2023.20.14

9. Kitsoft. CEO Kitsoft on the chronology of Ukraine's digitalization for SPEKA. 2024. Available from: https://kitsoft.ua/ua/news/ceo-kitsoft-pro-hronologiyu-cifrovizaciyi-ukrayini-dlya-speka

10. Kitsoft. Challenges, Benefits and Prospects of Digitalization in Ukraine: CEO Kitsoft for SPEKA. 2024. Available from: https://kitsoft.ua/ua/news/vikliki-perevagi-i-perspektivi-cifrovizaciyi-v-ukrayini-ceo-kitsoft-dlya-speka

11. Bondarchuk NV, Dubrova NP. Digitalization of public administration: status and prospects of development. Academic notes of the V.I. Vernadsky TNU. 2023;34(73):213-218. Available from: https://doi.org/10.32782/TNU-2663-6468/2023.1/38

12. Zhuk I. Mechanisms of public finance digitalization and methods of implementing in the public administration system in Ukraine: European experience. Economic Affairs. 2023;68(3):1701-1712. Available from: http://doi.org/10.46852/0424-2513.3.2023.35

13. Prokopenko S. Problems and prospects of digitalization of administrative services in Ukraine. Investments: practice and experience. 2024;12:235-240.

14. Nazarko A, Fedotov O. The Power of Digitization: Transforming Ukraine's Customs Service. Global Trade and Customs Journal. 2023;18(7/8):253-260. Available from: https://doi.org/10.54648/gtcj2023028

15. Krykavska I. Legislative regulation for implementation of digital technologies in the provision of administrative services in Ukraine. Zeszyty Naukowe Wyzszej Szkoly Finansyw i Prawa w Bielsku-Bialej. 2020;24(3):5-8. Available from: http://doi.org/10.23939/law2020.26.162

16. Verkhovna Rada of Ukraine. On electronic identification and electronic trust services. Law of Ukraine №2155-VIII. 2024. Available from: https://zakon.rada.gov.ua/laws/show/2155-19#n534

17. Shandryk V, Radchenko O, Koshelenko A, Deinega I. Digitalization as a Global Trend of Public Management Systems Modernization. Digital Technologies in Education: Selected Cases. Cham: Springer Nature Switzerland; 2024. p. 3-16. Available from: https://doi.org/10.1007/978-3-031-57422-1_1

18. Government portal. The Ministry of Digital Development presented Ukraine's progress and plans for the digitalization of administrative services in collaboration with the European Commission. 2024. Available from: https://www.kmu.gov.ua/news/mintsyfry-predstavyla-dosiahnennia-ta-plany-ukrainy-shchodo-tsyfrovizatsii-administratyvnykh-posluh-na-zustrichi-z-ievropeiskoiu-komisiieiu

19. Hrytsai S. Digitization of government as a global trend of the future: implementation of the "electronic state" policy (on the example of Ukraine). Reality of Politics. Estimates-Comments-Forecasts. 2023;24(2):45-

81. Available from: https://doi.org/10.15804/rop2023203

20. International Trade Administration. Korea – Digital Economy. 2024. Available from: https://www.trade.gov/country-commercial-guides/korea-digital-economy

21. OECD. Strengthening Active Labour Market Policies in Korea. Connecting People with Jobs. Paris: OECD Publishing; 2024. Available from: https://doi.org/10.1787/44cb97d7-en

22. Lauringson A. Digital employment services in Korea. Strengthening Active Labour Market Policies in Korea. 2024;70-93. Available from: https://doi.org/10.1787/b37cc4b2-en

23. Chung Ch-S. The Introduction of e-Government in Korea: Development Journey, Outcomes and Future. Revue Gestion et Management Public. 2015;3(4):107-122. Available from: https://doi.org/10.3917/gmp.034.0107

24. European Commission. Denmark 2024 Digital Decade Country Report. 2024. Available from: https://digital-strategy.ec.europa.eu/en/factpages/denmark-2024-digital-decade-country-report

25. Denmark.dk. The key to Denmark's digital success. 2024. Available from: https://denmark.dk/innovation-and-design/denmarks-digital-success

26. Wray S. Denmark ranked as the world's top government for digitalisation. 2024. Available from: https://www.globalgovernmentforum.com/denmark-ranked-as-the-worlds-top-government-for-digitalisation/

27. European Commission. Estonia 2024 Digital Decade Country Report. 2024. Available from: https://digital-strategy.ec.europa.eu/en/factpages/estonia-2024-digital-decade-country-report

28. Instytut Europy Środkowej. Estonia: the concept of a "personal state". 2024. Available from: https://ies.lublin.pl/en/comments/estonia-the-concept-of-a-personal-state/

29. Redziuk V, Darmostuk D. Digital platforms for provision of public services: experience of Ukraine and the world. Public administration concepts paradigm development improvement. 2024;(9):168-175. Available from: https://doi.org/10.31470/2786-6246-2024-9-168-175

30. Yesimov SS. Foreign experience in the digitalization of public services. Analytical and Comparative Law. 2023:386-390. Available from: https://doi.org/10.24144/2788-6018.2024.01.68

31. European Commission. Digital public services and environments. 2024. Available from: https://digital-strategy.ec.europa.eu/en/policies/digital-public-services

FUNDING

None.

CONFLICT OF INTEREST

None.

AUTHORSHIP CONTRIBUTION

Conceptualization: Anna Shcherbak.
Writhing – original draft: Anna Shcherbak.
Writhing – proofreading and editing: Anna Shcherbak.