

The role of the state in digitalization of education

Herasym Dei

Department of Public Administration and
Project Management,
University of Educational Management
e-mail: herasym_dei@edu.cn.ua
<https://orcid.org/0009-0009-5358-3047>

Maryna Dei

Department of Constitutional and
Administrative Law,
Faculty of Law,
National Aviation University
e-mail: maryna.dei@npp.nau.edu.ua
<https://orcid.org/0000-0002-0626-8089>

Anastasiia Kutynska

National Aviation University
<https://orcid.org/0009-0008-5316-737X>

Abstract. The article examines the dynamics of digitalization of public administration in Ukraine and its impact on the efficiency and availability of services. It is noted that the creation of the Ministry of Digital Transformation reflects a significant step in the direction of modernization of public administration through the introduction of modern digital technologies. The Ministry's plans for the period up to 2024 are considered ambitious and strategically important for the country's digital transformation. The article also points to the challenges facing the digitalization of education in Ukraine, such as the lack of concept, funding and infrastructural problems. It is recommended to study the European experience to improve the Ukrainian system.

The article analyzes in detail the main aspects of digitalization of education, in particular, the use of digital technologies in educational programs, the development of online courses and distance learning, the creation of interactive media resources, and the introduction of virtual reality into the educational process. It is noted that digitalization of education is a key stage in the development of modern education, preparing students for life and work in the digital era. The article highlights the importance of government support for providing adequate infrastructure for digital learning and the development of software and digital learning platforms.

The role of the state in ensuring the successful digitization of education is considered in detail, including the creation of a favorable environment for the introduction of digital technologies into the educational process, providing financial support and improving the qualifications of teaching staff. The article emphasizes the need to create standards and methods for effective implementation of digital technologies and control of their implementation. In general, the article identifies the role of the state as key to the successful digitization of education and supporting the education sector as a whole.

Keywords: Digitization, Public administration, Digital technologies, Education.

Introduction. Digitalization of education is not only the application of digital technologies and interactive media to improve the educational process, but also a profound transformation of approaches to learning and ways of acquiring knowledge. It covers the implementation of computers, tablets, smartphones, software, web platforms, online courses and other innovative technologies in educational institutions and the learning process.

Digital technologies are revolutionizing education, making it more accessible, interesting and effective for pupils and students. Not only do they help make lessons more interactive, but they also allow you to create personalized curricula, open online resources, and other forms of learning that take into account the needs of each student. Thanks to digitalization, learning becomes more flexible and adapted to the individual capabilities and needs of each student.

In addition, digitization promotes the development of digital literacy skills, which are increasingly important in today's digital world. Pupils and students learn not only to use digital tools, but also develop critical thinking, the ability to work with large amounts

of information, and the ability to analyze and evaluate information from various sources.

The development of modern technologies in Ukraine is becoming a catalyst for important changes in the socio-economic sphere, causing not only the growth of knowledge, but also the activation of innovative processes and the modernization of society. Digital transformation plays a key role in this context, as it not only revolutionizes the technological infrastructure, but also affects all spheres of life.

In the context of the regional development strategy until 2027, digital transformation is defined as one of the top priorities of the Education Development Strategy of the Ministry of Education and Culture. This means that the government is channeling significant resources to support digital development, hoping to achieve several key objectives. One of them is the development of a modern IT infrastructure based on the use of digital platforms and industry solutions. Another direction is the use of open data and the integration of innovative technologies based on the concept of a smart city for effective management of the development of cities and regions.

Digital transformation not only helps to increase the competitiveness of individual subjects of the business environment, but also stimulates the development of the economy as a whole, making it more dynamic and innovative.

Ukrainian and foreign scientists emphasize the importance of developing a national system that will ensure free access to innovations and new technologies in the field of open science.

Methods. The study is aimed at studying the role of the state in the digitization of education in Ukraine. To achieve this goal, an experimental design was developed, which included defining the research question and research objectives, conducting a literature review and analyzing available data on the digitization of education in Ukraine and other countries, developing a research methodology, including defining the variables to be studied and tools for data collection and sampling of researchers and conducting the experiment.

Some universal and effective approaches were used for data collection, which include:

1. Analysis of official documents, legislation and program applications related to digitalization of education in Ukraine. Interviews with various participants in the educational process, such as students, teachers, parents, administrators, etc., were studied on educational online platforms. With the help of sociological research, the attitude towards the digitization of education was determined, as well as the identified problems and obstacles on the way to the introduction of digital technologies into the educational process.

2. The study of specific cases of the implementation of digitization of education in different regions or educational institutions, which allows to find out effective approaches and possible obstacles. By studying such cases, it is possible to understand what specific methods and approaches were used, what results were achieved, as well as what challenges arose during the implementation of digital technologies in the educational process.

Therefore, a methodologically correct experimental design, ethical approval of the research and the use of various methods of data collection made it possible to obtain reliable results regarding the role of the state in the digitization of education in Ukraine.

Results. State regulation in the field of education is a complex management process that may include or focus on various directions, goals and objects. The study examines state regulation of the competitiveness of educational institutions through state authorities. However, it is important to understand that this is only one aspect of managerial influence. In order to fully understand the mechanism(s) of state regulation of the activities of educational institutions, it is advisable to take into account vertical and horizontal instrumental relationships in order to ensure the competitiveness of these institutions (Zhuravel, 2021).

The Ukrainian educational sphere faces a variety of challenges and problems that require a comprehensive and multifaceted approach to state regulation. One of the key aspects is ensuring the competitiveness of educational institutions, which requires a combination of improving the quality of educational services with understanding their competitive advantages in the modern mobile educational space.

Not only the competition for applicants and the risks of educational migration are important, but also the formation of a global mobile learning market, where the provision of educational services in online format opens up new opportunities for the commercial activity of educational institutions and increasing their income.

An example is the growing global market for mobile learning, which grew from \$8 billion in 2015 to \$20 billion in 2020. For Ukraine, this is a promising direction of

development, especially relevant in the context of the experienced COVID-19 pandemic and quarantine restrictions, which stimulate the use of significant intellectual and creative potential of scientific and pedagogical personnel.

The digital economy reflects a new development model that has become relevant for Ukraine. On January 17, 2018, the Government approved the «Concept for the Development of the Digital Economy and Society of Ukraine for 2018-2020». The main priorities of this concept include the development of digital infrastructure, which involves the coverage of the entire territory of Ukraine with broadband Internet, as well as the digitization of educational processes. This paves the way for digital transformations in various fields, such as education, medicine, ecology, cashless economy, infrastructure, transport, etc. (Strategy for the development of higher education in Ukraine for 2021-2031).

Digitalization, which is the use of digital technologies, replaces traditional means of electronic communication such as telephones, faxes, and telegraphs. Like the electronic computing machines of yesteryear that took up entire rooms, the evolution of technology has meant that our modern gadgets fit easily in our pockets, but have many more functions. This indicates that digital technologies make it possible to create and distribute huge amounts of information quickly, qualitatively and efficiently, which affects all areas of modern life, including government, economy, business and everyday life.

According to the IMD World Digital Competitiveness Ranking for 2019, the countries that are the leaders of the digital economy include the USA, Singapore, Switzerland and the Scandinavian countries. Ukraine, according to this rating, ranks 60th, noting a decrease of two positions compared to the previous year. Also, since September 2019, the Ministry of Digital Transformation has been operating in Ukraine, which is responsible for the implementation of state policy in the areas of digital transformation, development of the digital economy, digital innovations, development of digital skills, and protection of digital rights of citizens (Koval, 2021).

Mechanisms of state control over the competitiveness of educational institutions are formed and applied to ensure effective management in this area. The term «mechanism» is used in a wide range of studies covering market processes and state intervention. Management studies consider different levels of regulation from the state to communities.

The difference between the mechanism of state control over the competitiveness of educational institutions is the emphasis on the use of tools aimed at improving the quality of education and exposing violations of standards, unlike other areas of control.

This constitutes the basic conditions for controlling the competitiveness of educational institutions. Another important part is attention to the future needs of the labor market and the economy. Educational institutions, coordinating their activities with government bodies, must be aware of global and local trends in economic and social development in order to reflect them in their educational programs and form new skills and competencies of participants in the educational process.

In 2020, Ukraine, like the whole world, fell into a crisis situation, which led to increased attention to distance learning. This moment of crisis made it possible to systematically rethink its meaning in modern conditions, as well as consider the role of digitalization of education. The main goal was to identify typical problems of this form of education and identify prospects for its improvement.

Many scientists and practitioners are making efforts to study the peculiarities of learning in a distance format, in particular online. These aspects, including smart education, the development of educational content and digital teaching methods, are discussed in detail in the scientific works of various authors. In particular, they analyze the issue of digital methodological support, the social aspect of the institutionalization of distance learning, and the role of the information and communication competence of a modern teacher. In 2021, an analysis of education during the pandemic was presented, which examines in detail the actions of the government and the Ministry of Education and Culture, the quality of education and health conditions during distance learning (Strategy for the development of higher education in Ukraine for 2021-2031).

The analysis of scientific sources made it possible to determine the main stages of the implementation of distance education. Each of these stages was characterized by the level of readiness of the participants of the educational process to work and study in this mode, as well as the availability of the necessary basic support for the organization of distance learning (Kuzan, 2023).

In 2020, Ukraine faced a crisis that required increased attention to distance education. This period showed that the country's education system was not ready

for such a training regime. The main tasks of this period included the preparation of the necessary educational base for effective distance learning, teaching teachers and students to work in such a mode, as well as the development of independence and responsibility skills among students. Modern reality requires specialists who know a foreign language in any field. Higher education is an important factor in civilizational progress and contributes to the economic and cultural development of the country, forming conscious citizens who are competitive in the international labor market.

In 2020, there was an active search for ways to improve the educational process in the conditions of distance learning, which became a breakthrough in the digitalization of Ukrainian education. The Ministry of Education and Science introduced the «Regulations on distance learning» and launched the online platform «All-Ukrainian School Online», where students were offered video lessons according to the curriculum for each grade, and teachers were given methodological recommendations on modern educational technologies. With the support of various companies, the educational series «Interactive learning: tools and technologies for interesting lessons» was created and special courses were developed to improve the level of ICT skills and learn new pedagogical technologies.

The sociocultural basis of the digitalization of society is determined by the emergence of the Internet and mobile devices that provide constant communication between members of society. The French philosopher Pierre Levi considers four anthropological spaces in the history of human development.

The first space - planetary - arose under the influence of three characteristics of man: language, technologies based on human labor, and the creation of social organizations. The second space - territorial - is associated with the development of agriculture, the emergence of cities and the institution of the state. Economic well-being and literacy become important here. The third space - the space of goods - is born in the period of the world market and is based on the movement of resources, goods, capital, labor and information. The fourth space - the space of knowledge - today. Here, there is an acceleration of the evolution of knowledge and technology, the widespread distribution and availability of knowledge, as well as the emergence of tools for orientation in information data (Kotuha et al., 2023).

The modern anthropological space is developing in conditions of rapid growth in the level of knowledge, mass distribution and reflection of information flows, with the involvement of an increasing number of people in this process and the emergence of the latest technologies. Internet technologies have acquired special importance for modern students and play a key role in the digitalization of society in general, including the field of education, which is one of the most important in shaping society.

Education is the most important factor in the economic, social and spiritual development of society and is recognized as an inalienable and natural human right. However, the process of digitalization of education raises questions about whether it is a fundamentally new paradigm of the educational process or just a simulation of educational activity. In connection with the COVID-19 pandemic, it became obvious that many educational institutions are not ready for digital transformation, which emphasizes the need to adapt the educational system to modern challenges.

Digitization of education requires a creative approach and readiness for continuous improvement, adaptation to the rapidly changing social environment and the use of modern digital tools in the educational process from pedagogical workers. This means that teachers must be active participants in digital transformation and constantly improve their skills to successfully accompany students on this path. The professional challenges facing the modern teacher include not only the transfer of knowledge, but also the support of students in their personal and professional development, the use of innovative teaching methods and continuous self-improvement.

However, it is also necessary to systematize and study the European experience in this area. Adaptation of successful practices from other countries can be useful for the development of one's own digitization strategies in the Ukrainian education sector.

In Great Britain, information technology has already been introduced into the educational process at all levels of education. According to the current legislation, technical means such as multimedia equipment, electronic learning materials and modern computer classrooms must be used in secondary education, as well as access to high-quality Internet. Digitization of higher education involves technical updating of the educational environment and wide use of distance learning. Current legislation also regulates the creation of digital divisions of universities and the development of full-fledged online universities. In Great Britain, the experience of digitization of education is based on local education development programs and local regulations, accompanied by significant financial support.

In Estonia, the information system of secondary education eKool has been implemented, which functions throughout the country. This system facilitates interaction between students, parents, teachers and school administration. It allows teachers to enter student grades and attendance, assign homework, assess student behavior, and communicate with parents. Parents can view their children's grades and homework, and students can save their work in an electronic portfolio. District administrators have access to statistical reports and can easily analyze data from all schools in the district.

In Austria, digitization of education is widely applied at the local level, including small communities and not only secondary or higher education, but also postgraduate. For example, farmers from small communities can receive online training with support from the Ministry of Agriculture and the Ministry of Education for Practical Agricultural Issues (Koval, 2021).

In Ireland, with the assistance of local authorities in partnership with public organizations, digital hubs operate. These are places where the population is offered fast and reliable access to the Internet along with the opportunity to receive training in various areas of working with digital technologies. For example, the Ludgate hub in Skibbereen provides advice to businesses on the use of information technology, and also organizes coding and programming courses for young people.

In Germany, there is a system of dual education, which provides for higher education with integrated practical classes at enterprises with subsequent employment. In view of the rapid development of information technologies and the process of digitization of key areas of socio-economic development, the relevant ministry of Germany decided to make changes to the system of dual education in order to adapt it to modern requirements. This process included elements such as lifelong learning, interdisciplinary thinking and action, digital competence, and networking skills.

So, the experience of European countries confirms the significant advantages of digitization in the field of state educational policy. Among these advantages are innovation, modernization of education and transition to a higher quality and modern level, accessibility of education and educational programs thanks to online technologies, as well as promotion of integration processes in the European educational and economic environment.

The development of online learning, digital libraries and digital campuses expands the circle of individuals who have access to unique information previously available only to experts and scientists. Thanks to digital technologies, we can talk about the globalization of the scientific world and the active development of academic mobility. A modern university must adapt to these changes, maintaining its unique qualities and competitive advantages, developing a clear development strategy and using different models of the educational environment. Digitalization plays an important role in this process, ensuring the growth of the role and interest of students in the learning process and raising the level of education. In addition, digital education is gaining more and more importance, and the trends of globalization and the increase of online education can radically change the traditional education system.

The Ministry of Digital Transformation of Ukraine played a key role in the creation of the National Online Digital Literacy Platform «Action. Digital education», where an innovative format of learning through educational series was introduced. This platform provides access to a variety of courses for different areas of life, such as entrepreneurship, culture and new digital professions, all available for free. At the end of each course, participants can take a final test and receive a certificate confirming their skills.

National online platform for digital literacy «Action. Digital Education» acts as a modern educational resource aimed at improving the competence of civil servants in the field of digital development. However, based on the experience of European countries in the field of digitalization of public administration in the field of education, it is important for Ukraine to:

- To officially approve the Concept of digital transformation of education and science.
- To ensure the necessary quantity and quality of electronic educational resources, as well as appropriate material and technical support for all participants in the educational process.
- Create conditions for improving the level of qualifications of pedagogical workers in the field of information and digital literacy.
- Launch the professional (vocational and technical) education management information system (EMIS).
- Modernize the Unified State Electronic Database on Education (EDEBO).
- Create an online platform for effective communication between participants of

the innovation process («Science and business»).

- Join and actively participate in the creation and development of the European Open Science Cloud (EOSC).

- To improve and add content to the «All-Ukrainian Online School» platform.

Discussion. The study of digitization of public administration in the field of education is becoming more and more relevant in the context of the rapid development of digital technologies and their impact on educational processes. Domestic and foreign scientists are making significant efforts to study the theoretical and practical aspects of this issue.

Among the domestic researchers who devoted their work to the digitization of public administration, such scientists as S. Baregamyran, V. Gurkovsky, N. Dragomiretska, V. Yeganov, O. Orlov, P. Klimushyn, I. Lopushynskyi, A. Serenok and others. They explored various aspects of digital transformation in management, including the field of education.

It is also worth mentioning the scientists who specialize in digitization research in the field of education. Among them are Yu. Harust, A. M. Lakhizha, Statkevich, V. Sukhonos, S. Chukut, Ya. Shevtsov and others. They analyze the impact of digital innovations on management processes in education and develop strategies for implementing digital technologies to improve educational systems.

In Ukraine, the legal regulation of the competitiveness of educational institutions, in addition to specific legislation in the field of education, is supplemented by legislation on competition and competitiveness. This is an important point, as there is debate as to whether competition or increased networking is important for educational institutions. However, a competitive environment is considered necessary to stimulate the continuous development of education, especially in the context of providing educational services on a paid basis (Zhuravel, 2021).

Legal mechanisms combine a system of normative acts at the international level, as well as at the national, regional and local levels. At the level of an educational institution, these mechanisms include founding documents, collective agreements, a system of labor agreements, educational programs and other documents that specify the application of legal norms to a specific educational institution (Koval, 2021).

Indeed, questions regarding the need for state and public participation in the provision of educational services and the reasons that stimulate these subjects to participate in the process of managing the market of educational services may have different approaches in the economic literature.

One of the main reasons that encourage the state to participate in the education sector is the need to provide universally accessible, high-quality and equal education for all sections of society. The state acts as the main guarantor of social justice and equal opportunities, so monitoring the quality and availability of education is one of its main tasks.

Public participation in the field of education may be due to the desire to ensure greater democratization of the educational process, the involvement of various social groups in the management of educational institutions, as well as the provision of a greater level of compliance of educational services with the needs of society (Repository of ONU named after I.I. Mechnikov).

However, the presence of various views in the economic literature testifies to the complexity of this problem and the need for a comprehensive approach to understanding the mechanisms of the functioning of the educational market. Decisions about the role of the state and the public in the provision of educational services may vary depending on the specific context, economic conditions, political affiliations, and other factors.

Ukraine has a number of regulatory acts regulating the competitiveness of educational institutions, including laws on the protection of economic competition and protection against unfair competition. In addition, strategic standards of national, regional and local significance pay attention to the development of education from the point of view of its importance for the economy and society, the achievement of the goals of sustainable development. For example, such strategies as the National Strategy for the Development of Education, the Sustainable Development Goals of Ukraine for the period until 2030, the National Economic Strategy for the period until 2030 and others set themselves the task of increasing the availability of quality education, developing human potential and ensuring competitive conditions for investments (Strategy for the development of higher education in Ukraine for 2021-2031).

Conceptually summarizing the effect of legal mechanisms regulating the competitiveness of educational institutions, we can say that they should be aimed at forming a fair

competitive environment. In the conditions of the formation of the global market of educational services, it is important to avoid additional protectionism. The lack of healthy competition can contribute to the spread of incompetence and paralyze the civilized development of society.

Legal mechanisms for regulating competitiveness should stimulate those educational institutions that can gain competitive advantages thanks to research and innovation activities. Currently, there are systemic gaps in the education system in Ukraine, especially regarding the training of specialists and workers, and real production and service processes. Educational institutions often lack sufficient resources and motivation for research and innovation activities.

The strategic documents of the national level define the need for the development of an innovative economy, smart specialization and stimulation of human development. The role of educational institutions in these processes is very important. However, for the successful implementation of these tasks, it is necessary to support the management of educational institutions and spread positive experience among other institutes.

Many online meetings were held with the participation of representatives of the Ministry of Education and Science of Ukraine and experts of the Ministry of Education and Culture, where important information was provided regarding the reform of specialized secondary education and its implementation. These meetings became a platform for discussing key aspects of the reform, expressing various views and approaches to its implementation, as well as for attracting opinions and suggestions from participants in the educational process.

The main goal of the reform is to individualize education in high school and bring it closer to the needs of each student. Providing the opportunity to choose a study profile, courses and subjects will allow each student to develop his abilities and interests in the educational process. To support this initiative, high-quality vocational guidance will be conducted, which will help students make an informed choice about the future.

An important part of this reform is the creation of academic lyceums aimed at providing a wide choice of profiles for students from villages and small towns. These lyceums will become centers of knowledge and development, where students will be able to explore their chosen fields more deeply and develop their potential.

Reforming the education system is a key direction of modern national education policy. As a national education strategy; renewal of the legislative and regulatory framework of the entire education system, reorientation of the content based on the competence approach. The implementation of state policy in the field of higher education is ensured by improving the system of higher education and its quality, raising the educational level of citizens of Ukraine. In accordance with the procedure established by the Cabinet of Ministers of Ukraine, it ensures the balance of the structure and volume of state and communal universities of ownership, prepare highly educated specialists, funds for the relevant budgets, individuals and legal entities, taking into account the needs and interests of individuals Law of Ukraine «On Higher Education».

The Deputy Minister of Education and Science of Ukraine noted the importance of close cooperation between the Ministry of Education and Culture, regional military administrations, local self-government bodies and associations of local self-government bodies in the process of developing a network of educational institutions in each region of Ukraine. This approach makes it possible to take into account all the challenges and peculiarities that communities may face during the implementation of the reform.

Meetings with heads of communities and heads of education management bodies in the regions, as well as public discussions and communications of the reform on the ground, are planned from mid-May to continue the discussion of the goals and specifics of the implementation of the reform in the regions. This is another important step in ensuring the successful implementation of the reform of specialized secondary education in Ukraine.

Together with the Ministry of Digital Transformation of Ukraine and international partners, the development and improvement of the «All-Ukrainian Online School» project is constantly being developed. This platform is based on OpenEdX technology and is used by educational institutions in various countries, including Spain, Israel, Poland, Saudi Arabia and others. This platform collects video content, quizzes, materials for teachers, courses for professional development and more. Currently, a demo version of the platform is available, and according to the Ministry of Education and Science of Ukraine, the process of purchasing the necessary content is ongoing (Digitalization in education - what exactly is being changed in Ukrainian schools - Anti-Crisis Media Center).

State programs in the field of education are a powerful mechanism for reforming

the educational system as a whole, raising the level of education of the population and increasing the competitiveness of national higher education institutions in the global educational space. With the help of state programs in the field of education, a network of leading higher education institutions was created, their number increased, and they received recognition in the world rankings of universities. Today, important tasks are the development of scientific potential, bringing the level of higher education to international standards, improving the system of informal education and retraining of personnel, expanding international cooperation. Special attention is paid to a balanced policy in the field of education for the socio-economic development of the country.

In connection with the active pace of education reform in developed countries in recent years, the government of Ukraine identified increasing the competitiveness of domestic higher education institutions on the national and global education markets among the main goals of the reforms. To achieve this goal, it is necessary to introduce advanced foreign technologies adapted to national conditions, systematically improve the qualifications of the teaching staff, and develop the infrastructure of higher educational institutions. The implementation of these tasks is impossible without an appropriate system of state support, which is a key factor in the establishment and recognition of national educational institutions in the global educational space.

State policy in the field of education covers a wide range of measures aimed at the functioning and development of the educational system. The key document defining the state educational strategy is the Law «On Higher Education». This law is fundamental in the identification of the state educational policy, where education is considered as a systematic process of education and training aimed at the intellectual, moral, creative, physical and professional development of the individual.

In the Law «On Higher Education», education is defined as a set of knowledge, skills, values, activity experience and competencies aimed at satisfying the educational needs and interests of a person, family, society and the state. This definition broadly covers various aspects of education and defines its role in the formation and development of the individual, as well as in the socio-cultural and economic development of society (Law of Ukraine «On Higher Education»).

The advantages of digitalization of public administration are really significant and are felt at various levels of society. Here are a few of them:

1. Increasing efficiency and effectiveness. The use of modern technologies makes it possible to optimize management processes and respond to changes more quickly.

2. Faster data analysis. This helps to make more informed decisions, as it is possible to quickly analyze large amounts of information.

3. Exchange of documents. With the help of digital technologies, it is possible to efficiently exchange documents between different institutions, which contributes to the convenience and speed of resolving issues.

4. Fast and high-quality service to citizens and businesses. Digital services allow citizens and businesses to receive services faster and more efficiently.

5. Reduction of corruption risks. Online services reduce opportunities for corruption as they make processes more transparent and controlled.

6. Increasing interaction with the public. Digital tools facilitate more effective interaction between the government and the public, ensuring greater openness and availability of information.

7. Increasing transparency and openness. Digital technologies make it possible to make the activities of government bodies more transparent for the public, which contributes to increasing trust in government structures.

Our research confirmed that even the best services and online resources cannot replace a teacher who interacts directly with the student, motivates him and teaches him to learn independently. These problems also turned out to be relevant for first-year students of higher education institutions, who also switched to distance learning.

It is important to note that the distance education of 2020-2022 created a significant burden not only on teachers, pupils and students, but also on the parents of schoolchildren, who actively participated in the educational process and tried to help children in accessing online education. Among the significant problems of this period was the lack of necessary equipment and gadgets at home, especially in families with many children and parents who also worked remotely.

In addition, the limited capabilities of the fixed Internet significantly affected the quality of the distance learning organization, especially in small cities, rural areas and remote mountainous regions. This problem has caused difficulties in accessing online resources for many citizens. Moreover, prolonged stay in front of computer or phone screens has led to deterioration of vision in children.

Our analysis of the literature showed that in Ukraine, there are still not enough large-scale studies on the quality of knowledge and skills of students during distance learning. However, communication with teachers and lecturers of higher education institutions shows that the results of distance learning lag far behind the results of offline education. This requires finding new opportunities for improving the educational process in distance mode and evaluating learning outcomes that take into account the specifics of online learning.

Conclusions. Indeed, the dynamics of digitalization of public administration in Ukraine shows positive trends that contribute to improving the efficiency and availability of services. The formation of the Ministry of Digital Transformation reflects an important step in the direction of improving public administration through the introduction of modern digital technologies.

The plans of the Ministry of Digital Transformation for the period until 2024 are ambitious and reflect a strategic approach to the digital transformation of the country. Target indicators such as the transition to online services for citizens and businesses, the development of Internet infrastructure, digital literacy initiatives and increasing the contribution of information technology to GDP are designed to ensure a rapid and high-quality digital transformation of the country.

However, the digitization of education and educational policy in Ukraine faces important challenges, such as the lack of a concept and adequate funding, as well as infrastructure problems in certain regions. For further progress in this direction, it may be useful to study the European experience of integrating digital technologies in the field of education and public administration in order to use its best practices and best practices to improve the Ukrainian system.

The main aspects of digitization of education include:

- Use of digital technologies in educational programs and lessons.
- Development of online courses and distance learning.
- Creation of interactive media resources for training and self-study.
- Implementation of virtual reality and other immersive technologies in the educational process.

- Increasing digital literacy among students and teachers.
- Development of digital infrastructures in educational institutions.

Digitization of education is an important stage in the development of modern education, which helps to prepare students for life and work in the digital age.

The state must ensure the availability of the necessary infrastructure for digital education, including fast and accessible Internet, computers, tablets and other technical means.

The state can promote the development of software and digital platforms for learning, as well as provide financial support for the creation of innovative educational resources. The state can organize training and professional development of pedagogical workers on the use of digital technologies in the educational process. The state can develop standards and methods for the effective implementation of digital technologies in the educational process, as well as monitor their implementation. The state can allocate financial resources for the development of digitization of education, including the purchase of technical means, software development and professional development of pedagogical workers.

In general, the state plays a key role in ensuring the successful digitization of education, creating a favorable environment for the introduction of digital technologies in the educational process, and supporting the education sector as a whole.

Indeed, modern transformations in the field of education are caused by various economic, social, political and cultural processes. The transition to the knowledge economy, democratization of society, informatization and other factors intensify the need to reformat education and create new, innovative systems.

In order to preserve the competitiveness of the national education system in the face of global trends, it is important to develop an effective state education policy. This policy should take into account the general trends of world development and contain strategic goals aimed at the development of the country as a public civilization in the XXI century.

One of the strategic tasks of the state policy in the field of education is to ensure the country's educational potential, taking into account the requirements of sustainable development and integration of the national education system to European standards.

Analysis of modern trends in the field of education indicates the need to constantly raise the mandatory educational level of the population and improve the quality of higher education. Education, especially higher education, is a key mechanism for the

reproduction of science and ensuring the country's economic competitiveness. Thus, the state educational policy becomes an extremely important component of the social and humanitarian policy of the state.

Preserving both paid and free education systems is important to provide an alternative career choice for the younger generation. The modern education system must be subject to significant changes related not only to the organizational structure and methods, but also to the purpose and strategic goals of education. It should be creative, innovative and adapted to the needs of society in the 21st century. Education should be based on scientific principles and take into account the cultural diversity of humanity, meeting the needs of various ethno-cultural, socio-professional and religious groups.

Reforming the education system is also related to increasing the prestige of the teaching profession and preserving both paid and free education. The system must undergo changes in the structure of the organization, training methods and technologies, as well as rethink the goals and strategic orientations that will allow to adequately respond to the challenges of the 21st century.

In this context, education should become creative, innovative and provide comprehensive satisfaction of the needs of different population groups, respond to cultural diversity and take into account modern ethno-cultural and social challenges.

It is predicted that in the next 5-10 years, the change in the landscape of the most in-demand professions will have a significant impact on the implementation of the concept of Industry 4.0 and the development of IT technologies, as well as taking into account environmental issues. According to the estimates of world experts, specialists who can design and implement new techniques and technologies taking into account the challenges of the future will be most in demand. Professions related to ensuring human life and health are also covered, in particular in the field of future technologies, IT technologies and data, environmentalization of production and life, as well as human health.

However, at the same time, there are professions that remain relevant in the future, such as those related to the provision of services in the field of health, education, creativity and personal care, because they require human intervention and empathy, which cannot be completely replaced by automated systems.

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