**UDC:**338

Nazar Podolchak

Doctor of economic sciences, professor, head of Administrative and Financial

Management Department

Lviv, Ukraine

+380681373037

nazar.podolchak@gmail.com

**ORCID:** http://orcid.org/0000-0002-0284-9601

Olena Bilyk

Ph.D. in Economy, Associate Professor, Associate Professor of the Administrative and

Financial Management Department,

Lviv Polytechnic National University

Lviv, Ukraine

0972896888

olena.bilyk@gmail.com

**ORCID:** http://orcid.org/0000-0002-7110-7257

Mariia Khim

Assistant of the Administrative and Financial Management Department,

Lviv Polytechnic National University

Lviv, Ukraine

0633569527

missm28@ukr.net

**ORCID**: http://orcid.org/0000-7000-3151-6435

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# DIGITALIZATION OF THE ECONOMY AS ONE OF THE FACTORS FOR INCREASING THE STATE COMPETITIVENESS

### PROBLEM STATEMENT

Nowadays Ukraine has a further problem of achieving economic and social development. The implementation of socio-economic reforms raises the need to rethink the meaning of the category of public welfare itself. A system of effective control over the dynamics of population welfare indicators that would take into account the digitalization of the economy has not yet been created. Market relations radically change the conditions of reproduction and functioning of the human factor, methods of management and regulation of employment, affect the development of the education system and the solution of the food problem. The complexity of processes of the transition to market relations makes it necessary to study the essence of the mechanism of self-regulation of the economy, ways to achieve a balanced distribution and redistribution of income in modern conditions.

Today, the development of the digital transformation of the economy is associated with both high expectations (economic growth, the improvement of the quality of services, the strengthening of competitiveness, etc.) and fears (job cuts, the intensification of inequality, and the growth of threats to information security). Many countries have developed digital strategies and action plans aimed at the realization of the development opportunities offered by the third-wave digital technologies, such as artificial intelligence, analysis and storage of big data, distributed ledger technology, or the Internet of things, and the management of the risks associated with digital transformation. In these conditions, the task of adequate information and analytical support for the management of digital transformation processes at the national, regional and sectoral levels, and the creation of the necessary tools for this becomes urgent.

This article presents a tool for assessing the level of development of the digital economy in the country, which can be used at various levels of management to form and adjust strategies and plans of digital transformation.

The state of the innovation sector of the economy is adequately described by the indicators that characterize the prevalence of innovation among enterprises, as well as the activity of the population in the launching their own business and the innovation of the latter. This study is designed to fill these gaps.

In connection with the above, the topic, purpose and objectives of the study are extremely well-founded and timely, as indicated by a number of domestic authors in their works. An important aspect is that there is the covariance relationship between economic development and public welfare. All of this together makes the topic chosen by the authors of a significant theoretical and practical interest.

#### ANALYSIS OF RECENT RESEARCH AND PUBLICATIONS

Problems of formation of digital economy and its influence on increase of competitiveness of the country were investigated by domestic and foreign researchers: I. Ansoff, R. Akoff, S. Veretyuk, S. Voitko, V. Geets, A. Glushenkova, O. Gudz, P. Doyle, P. Drucker, I. Zelisko, S. Kolyadenko, I. Karcheva, N. Kraus, R. Lipsi, L. Lamin, I. Malik, P. Stetsyuk, A. Thompson, E. Toffler, K. Schwab and others. At the same time, the impact of digitalization of society on socio-economic relations, identification of opportunities and justification of measures to build qualitatively new management models based on modern digital technologies needs further research.

### THE PURPOSE OF THE ARTICLE

The purpose of the article is to consider the main challenges and benefits of digitalization of Ukraine's economy, as well as to outline the threats and risks posed by this process, to develop tools for assessing the level of digital economy in the country. digital transformation plans.

### MATERIALS AND METHODS.

For the analysis of this issue open state data were used and innovative approaches were applied. We will carry out a retrospective analysis of the economic and social development of these states, taking into account the implementation of digitalization and using medium-term budget planning. For this we use a ranking method and display the change in the rank of the states in 2019 vs 2009 by selecting the following indicators: gross domestic product at current prices, gross domestic product per capita at current prices, unemployment, national income, total expenditure of public administration, and networked readiness index.

## **MAIN MATERIAL**

From a philosophical point of view, it is argued that people can experience their incarnation only through the community - the social nature of a man. Common goals and values establish communities and the identity to the state. Since the common good depends on value systems, it also combines ideological elements.

The common good means the good as a whole and concerns the common interest of the community, society or, at the very least, the interests of the world community and implies a consensus on goals, means and ways. However, it is often overlooked that diverse interests and goals exist in multiple and open societies. Against the background of economic globalization and changes in structure and values, the expansion of the concept of "the common good" is increasingly required, and the social

market economy and market mechanisms lack the ability to sufficiently serve the common good. Therefore, civil society needs to be strengthened, meaning that members of society must increasingly reach out to each other and take joint responsibility for participation. Companies also require more voluntary commitment to the common good - regardless of the fact that a large number of small and medium-sized companies and a number of large companies are committed to society as a part of ensuring "corporate social responsibility".

The implementation of the concept of the common good has long ceased to be the task of the state only, but has become the goal of non-governmental intermediate organizations. The community and its voluntary participation are also increasingly promoted at the local level. In the end, the financial crisis of the state welfare also led to the rethinking of social policy, which also redefined the principle of subsidiarity. In addition to the revival of associations, which largely dominate the socio-political space, the concepts of self-help, known since the post-war period, and development assistance are increasingly used and are based on existing (civil) initiatives and associations. The subject of economic theory is the question of fair distribution of income, which was especially associated with the concept of public welfare, became the subject of the work by Adam Smith (Gray, 1948). This economist formulated the dependence of public welfare on the quantity of the annual product of labor and the number of consumers, as well as on the correspondence of the consumption of the annual product to the needs of consumers achieved in society. Interesting statements are those of physiocrat Kene's (Blaug, Kene and Fransua, 2008, pp. 128-130).

Marx's theory of reproduction, which directly concerns the reproduction of capital, conveys the general knowledge of reproduction and economic growth in all types of production. On the basis of his value theory and value-added theory, Marx first developed a scientific theory of social reproduction. His analysis of the capitalist reproduction process first of all records the relations and interrelations of many competing individual capitals related to the use and value of the economy in the process of reproduction. Marx demonstrates the capitalist character and antagonistic contradictions of this particular historical form of social reproduction (Burawoy, 1990, pp. 775-793).

The Walras' question of welfare is intertwined with the questions of economic balance. It was this Swiss economist who developed a theoretical model of general economic equilibrium in the classical market.

The Walras' model is based on the analysis of supply and demand and consists of several systems of equations. The leading position is occupied by a system that characterizes the balance of two markets - productive services and consumer goods. The economist assumes that the supply of labor resources is equal to their demand, that is, he admits the possibility of zero unemployment. The unemployed are only those subjects whose estimates of the usefulness of free time are higher than the estimates of the usefulness of monetary income received as a result of work. If in such a market the supply of labor exceeds the demand, then wages decrease, hence employment loses its attractiveness; the supply of labor falls and, as a result, equilibrium is restored (this is the so-called equilibrium unemployment)(Voronin and Kizim, 2006, pp. 71-74).

Thus, it should be noted that social welfare consists of five social dimensions, including:

- Social perception
- Social actualization
- Social contribution
- Social consistency
- Social integration

However, economic characteristics are also an important aspect of ensuring social welfare. In other words, to maximize welfare, it is necessary to create conditions for economic equilibrium, which, in turn, depends on the high economic culture of consumers and producers, their ability to participate in price competition and focus on maximizing utility. Therefore, it is not surprising that many generations of economists have been dealing with the problems of equilibrium. So, public welfare is an economic relationship regarding the formation of national income, its equitable distribution, redistribution and use; it is a set of socially normal conditions necessary for the amplified social reproduction of each individual of society as a requirement of scientific and technological progress.

Nowadays the development of the digital transformation of the economy is associated with both considerable expectations (economic growth, services of the better quality, enhanced competitiveness, etc.) and worries(job cuts, the increase of inequality and bigger threats to information security). Many countries have developed digital strategies and action plans aimed at the realization of the development opportunities offered by the third-wave digital technologies, such as artificial intelligence, analysis

and storage of big data, distributed ledger technology or the Internet of things, and at the management of the risks associated with digital transformation. In these conditions, the task of adequate information and analytical support for the management of digital transformation processes at the national, regional and sectoral levels, and the creation of the necessary tools for this becomes urgent.

The global impact of information resources and information and communication technologies on the entire socio-economic space, the high speed of their distribution, the wide opportunities for their use in various areas of social and industrial activities and the scale of informatization processes oblige us to measure the impact of information shifts and the use of information and communication technologies on social development based on statistical methods, taking into account the perspective medium-term budget planning.

The global information technology market is outpacing traditional industries in terms of growth rate (Veerpalu V., Pastukh S., Volodina E. and Devyatkin E., 2014, pp. 12-16), and can be compared with them in terms of the absolute value. Nowadays, the international practice uses the development index of information and communication technologies (ICT) when analyzing the digitalization of the economy. The ICT development index consists of three subindexes: ICT accessibility (IDI access subindex), ICT use efficiency (IDI use subindex), and population skills of using the ICT (IDI skills subindex) (International Telecommunication Union, 2017).

One of the important research questions is the development of a model of social and economic development of the state in the context of medium-term budget planning. The efficiency of the economy in general, including the sustentation of a moderate level of social inequality, creates the necessary general conditions for the country to implement the latest ICTs. Healthy competition in the economy is necessary for the formation of an economic environment that encourages the introduction of new technologies, research and development results.

A serious gap with world leaders in at least one of these characteristics can create obstacles for the digital economy.

The effectiveness and quality of all these and other institutional elements of the national economic system open up opportunities for the realization of the entrepreneurial potential of the population, particularly in the field of digital technologies and their use for innovative business models. Based on the fact that digitalization processes affect almost all areas of economic activity, macroeconomic indicators can reflect the nature of changes.

The conceptual basis for quantifying the state of the innovation climate in national economies is formed on the assumption that the following categories of parameters have the greatest impact on the comfort of innovation activities

- gross domestic product (GDP) is the main generalizing indicator of economic development, which reflects the total volume of production of goods and services over a certain period. The GDP characterizes economic activity in a country and determines its place in the world; the gross domestic product is a significant indicator of the country's socio-economic development. When calculating GDP, it is possible to assess the results of production and consumption, economic growth rates, and labor productivity, as well as to form an idea of the overall welfare of the nation (State Statistics Service of Ukraine, 2019);
- GDP per capita is an indicator of the level of economic activity and the standard of living of the population in certain countries and regions over a certain period. GDP per capita is equal to the value of GDP divided by the number of inhabitants. The level and dynamics of this indicator indicate the level and dynamics of economic growth and development of the country, but this indicator shows only the average value, and it does not show the inequality in income and welfare of the population;

# - employment and unemployment:

The employment rate is a relative indicator of employment, which shows its prevalence among adults. It is calculated as the ratio of the employed population to the total population aged 15 to 70. The unemployment rate is a relative indicator of unemployment that shows its prevalence among the economically active population. It is calculated as the ratio of the number of unemployed people to the number of economically active people. The analysis of economic indicators makes it possible to estimate losses from underutilization of labor resources due to unemployment. A decrease in population categories such as the number of economically active and employed people (as well as the levels of economic activity and employment) means a decrease in labor resources, which is an undesirable trend for the country's economy. A decrease in the number of the unemployed and the unemployment rate mean an economic improvement in the labor market (International Labour Office, 2018).

- Government expenditure (as a percentage of GDP) indicates the size of public administration in different countries. The large difference in this indicator denotes the diversity of countries' approaches to the provision of public goods and services and the provision of social protection, not necessarily the difference in resources spent. This figure is measured in thousands of dollars per capita and as a percentage of GDP. All OECD countries collect their data according to The System of National Accounts 2008.
- Government revenue (as a percentage of GDP). Governments collect revenue primarily for two purposes: to finance the goods and services they provide to citizens and businesses, and to fulfill their redistributive role. The public sector in the economy in terms of available financial resources is determinative for comparing the levels of government revenue in different countries. The total amount of revenue collected by governments is determined by past and current political decisions. This figure is measured in thousands of dollars per capita and as a percentage of GDP.

To build scenarios for the development of digitalization in Ukraine, the study used indicators of social development and digitalization of such countries as Poland, Belarus, Romania, Germany, and Estonia. The main assumptions for the election of these countries were as follows:

- 1. Poland, Romania, and Belarus are countries that Ukraine borders.
- 2. Germany and Estonia are the reference countries.
- 3. Ukraine and all the selected countries share the influence of a historical factor, i.e., the influence of the command economy during the period when Ukraine was a part of the Soviet Union.

Based on the third assumption, it should be noted that this assumption is based on the cultural theory of state development. The cultural theory emphasizes the state as a primarily cultural artifact and focuses on how symbolism plays a primary role in the formation of the state (Barkey, Karen and Sunita Parikh, 1991, pp. 523-549). Most strikingly, some studies highlight how the creation of national identification and citizenship were crucial to the formation of the state. Then the state is not just a military or economic authority: it also includes cultural components that create people's consent, rights and state affiliation (Alonso and Ana M., 2005, pp. 3-26).

In each of the countries we studied, there is a relatively small share of domestic research and development expenditures in GDP. This indicator determines the availability of financial resources for research activities. Its low value is explained, in

particular, by the lack of interest of national business in the development of new technologies.

The defining indicator in the context of building a digital economy is GDP per capita, which is several times lower in Ukraine than in the leading countries. Although the problem of increasing the standard of living of Ukrainians has been on the agenda of the state authorities for many years, the dynamics of economic development does not yet allow making a leap in this area.

The ratio of income and expenses indicates the level of competitiveness of the state in the world and domestic markets.

A sufficient level of maturity of the digital sector of the economy is not achievable without large local companies-suppliers of goods and services that can compete with external players, including global leaders of the sector.

The lack of positive social and economic effects is an extremely worrying indicator of the entire process of digital transformation. Of course, they may not be observed in the short term or they may be offset by other negative effects, but at the end of an extended time interval (for example, 3-5 years), their identification is critical for calibration of government regulation measures and adjustment of the development strategy of the entire country.

Within the framework of the used system of indicators, almost no failed elements of the economic climate were found, as well as those that ensure the unconditional leadership of our country. In general, the business environment in Ukraine is characterized by a fairly uniform state of development, having rich growth reserves in almost every of the studied areas.

Recently, more and more information about certain aspects of modern economic life is received by the world community from various ratings that characterize the development of individual countries and their place in the world economy. Also the country's image in the global world has become objectively assessed. International ratings are becoming an increasingly important source of information about the potential and development dynamics of certain countries.

Nowadays, the research of the country's place on a global scale is relevant because ratings can indicate the need to implement measures to overcome shortcomings and create broad opportunities to increase competitive advantages.

The Networked Readiness Index (NRI) has been annually calculated by the World Economic Forum (WEF), the World Bank (WB) and the INSEAD International business school since 2002 (Silja, Soumitra and Bruno, 2017).

The NRI evaluates a country's ability to use ICT capabilities for network purposes. Firstly, the NRI provides information about the main factors that affect the development of the network economy, with a view to their consideration in public policy. Secondly, in the long term, this information engages more people, organizations and communities from around the world in the information space. The NRI not only evaluates a country's readiness to participate in the information space, but also shows why countries are different.

Networked readiness depends on whether a country has the drivers needed to use digital technologies to reach their potential and whether these technologies actually affect the economy and society. The research breaks down that information into units to get an accurate picture of all drivers and full effects. The NRI consists of four subindexes that assess the environment for IT development, society's readiness to use it, actual IT use by state, business, and population, and the consequences that IT have in the economy and society. The first three subindexes are drivers of growth, which are prerequisites for the fourth subindex that evaluates the impact of IT on society and the economy. These four subindexes are divided into 10 parts and 53 variables. The first subindex - "environment" - includes such components as political and regulatory environment, business and innovation environment; the second subindex, - "readiness" - includes infrastructure and digital content, availability of IT, skills of the population; the third one – "use" – reveals the extent of use by individuals, business and government; and the fourth subindex - "influence" - is logically derived from the above-mentioned subindexes and contains the following two components: an impact of IT on the economy and its impact on society in a particular country. The total value of the index is the arithmetic mean of the four subindexes listed (Breen, 2016).

The Networked Readiness Index (NRI) was first published in 2002 and has provided an integral basis for assessing the multifaceted impact of ICT on society and country development. By 2016, the NRI was part of the Global Information Technology Report (GITR) published by the World Economic Forum (WEF), Cornell University, and INSEAD. Last published in 2016 by the World Economic Forum, first in collaboration with the World Bank, then with INSEAD, and later in partnership with both INSEAD and Cornell University, the NRI has been recognized as a global

benchmark for assessing the progress and readiness of technology adoption in countries of the world. Over the years, the NRI has identified the opportunities and challenges that are faced by governments, businesses, research teams and individuals to fully capture the benefits of technology and has provided valuable, data-based guidance for leaders of both the public and private sectors.

In 2019, due to some internal reconstructions and changed priorities the WEF handed over the production of NRI to its original editors - Soumitra Dutta and Bruno Lanvin. This provided an excellent opportunity to revise the structure of the NRI and make it more suitable for modern conditions (Fig. 1) (Portulans Institute, 2019)

**Networked Readiness Index (NRI) Technolog** People Governance **Impact** Access **Individuals Trust Economy Business** Regulation Quality of Content Life **Future** Governments Inclusion Contribution **Technologies** 

Figure 1. The NRI model of 2019

Source: personal research

A technical advisory group was then established to provide advice on how the NRI model should be redesigned. There were three main goals that guided this process:

- to maintain continuity with the main components of the NRI of previous years
- to display current ICT implementation issues that were not adequately documented in the NRI model of 2016
- tovalidate the new NRI model for future technological trends and developments.

The new method of calculating the NRI has an improved structure since 2019, so it is not quite possible to compare the results of this year with the ratings of previous editions. However, the fundamental basis of the NRI remains unchanged, and the NRI rating of 2019 is similar in its results to the NRI of 2016.

In fact, eight of the top ten countries of this year made it to the top ten in the NRI of 2016. To better analyze the network readiness of Ukraine, we should compare it with other countries that we have selected for analysis. The analysis was conducted on the basis of the ratings of years 2009 - 2019. We have analyzed the data collected for NRI purposes. The results of the analysis are shown in table 1.

We will carry out a retrospective analysis of the economic and social development of these states, taking into account the implementation of digitalization and using medium-term budget planning. For this we use a ranking method and display the change in the rank of the states in 2019 vs 2009 (table 1 and 2) by selecting the following indicators: gross domestic product at current prices, gross domestic product per capita at current prices, unemployment, national income, total expenditure of public administration, and networked readiness index.

Table 1
Ranking of countries in 2009

A country	Ranking with addition	Z-score is the arithmeti c mean	Min-max arithmeti c mean	Min-max geometric mean	Difference with the standard arithmetic mean	Difference with the standard geometric mean	Overall rating	Rank
Belarus	3	5	5	3	3	4	23	2
Germany	5	1	1	1	2	1	11	6
Poland	2	4	4	3	5	3	21	4
Romania	5	2	2	2	1	2	14	5
Ukraine	1	6	6	3	6	5	27	1
Estonia	4	3	3	3	4	6	23	2

Source: personal research

According to the indicators, in 2009 Ukraine ranked last among the countries selected for the study, while Germany was at the top. However, over the course of ten years, structural changes have taken place in the economies of these countries. Let us determine the change in the ranks of countries in 2019 (table 2).

Table 2

Ranking of countries in 2019

A country	Ranking with addition	Z-score is the arithmetic mean	Min-max arithmetic mean	Min-max geometric mean	Difference with the standard arithmetic mean	Differenc e with the standard geometric mean	Overall rating	Rank
Belarus	2	5	5	4	3	4	23	2
Germany	6	1	3	2	2	1	15	5
Poland	3	4	4	3	5	3	22	3
Romania	4	3	2	1	1	2	13	6
Ukraine	1	6	6	4	6	5	28	1
Estonia	5	2	1	4	4	6	22	3

Source: personal research

In 2019, Ukraine and Belarus remained unchanged in the rating, but Romania and Estonia improved their positions significantly. The reasons for these changes are the application of the medium-term budget planning by Romania in 2008, which led to a decrease in government debt and GDP growth.

It is important that the global ICT inclusion index shows the results similar to those attained in this study (figure 1).

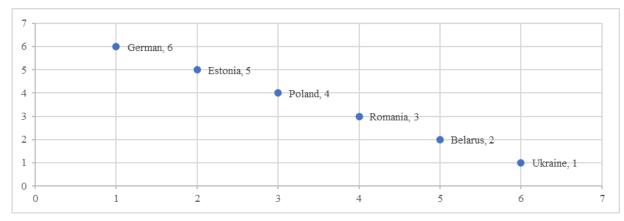


Fig. 1. Ranking of countries by the index of global inclusion

Source: personal research

Based on the conducted research, we will construct two scenarios for the development of digitalization in Ukraine (table 3).

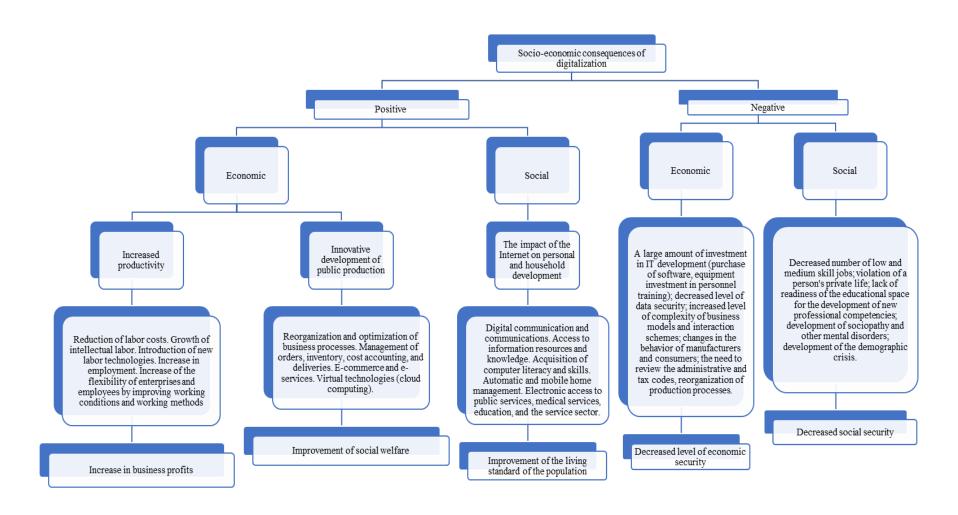


Fig.3. Socio-economic consequences of digitalization

Source: personal research

Table 3 Digitization scenarios in Ukraine

Area of	Scenario 1	Scenario 2		
development	Accelerated digitization	Gradual digitization		
		(Basic level)		
Perception	High perception of digital	Critical perception		
	technological progress	High-risk awareness		
	Exchange culture	Intensive data protection		
	A small value of data			
	protection			
Education	Rapid progress in digital	A wide range of		
	teaching and learning	educational offers		
	Expansion of computer science	Promotion of creative		
	courses	and interdisciplinary		
	Communication technologies	courses		
	and data analysis	Slow expansion of		
	Integration of digital skills in	digital teaching methods		
	many branches of professional			
	training			
Employment	More profound division of	Expansion of digital		
1 7	labor into simple and higher	activity profiles		
	specialization for qualified	The technology supports		
	workforce Promotion of	the expansion of		
	retraining and further training	positions in the		
	Progressive flexible	workplace.		
	mobilization of labor relations	Rationalization of		
	Social protection of the self-	routine activities		
	employed Use of digital	Flexibility of labor		
		relations is limited		
	methods for professional	relations is innited		
	integration of people with disabilities			
	disaonnes			
Competition	Accelerated access to digital	Markets at stake are		
Competition	markets	protected from digital		
	Low protection of competition	competition as much as		
	in the "analog" markets	possible; copyright and		
	Domination of models with	patent protection are		
		strengthened		
	open source	suenguieneu		
Industrial 4 O	Low copyright protection	Adoptation of Jivici		
Industry 4.0	Technological leadership in the	Adaptation of digital		
	production of capital goods	concepts		
	protects	Specialization in		

	high investment in R&D	industrial services
	Recruitment of IT-experts	
	worldwide	
Business	High investment in software	Transition to technical,
services	and big data analysis: increased	economic and research
	demand due to industry 4.0,	councils continues,
	motor transport, digital media,	primarily in creative
	and administrative	and artistic spheres
	rationalization, etc	
Trade	Extension of trading platforms	Cautious acceptance of
	into consumer and service	online trading
	platforms Growing number of	Protection of trade and
	suppliers	crafts Expansion of
	Concentration on multiple	shopping centers Spatial
	platforms Platforms sell their	presence remains
	own products More direct	important
	marketing from manufacturers	
Transport	Roadworks that manage	The great advantage of
•	vehicles will become standard	self-driving cars, The
	by 2030. Car exchange will	use of self-driving
	continue with fully automated	vehicles remains limited
	parking. Traffic management	(traffic lanes, trains,
	systems will optimize the	busy roads, etc.).
	traffic flow	
Mass media	Radio and television are	The advantage of
	turning into entertainment and	printed products remains
	information platforms Focus on	important for the
	multiple platforms Many	language and cultural
	information providers (blog	orientation
	journalists, authors, artists)	of the media
	Print media are declining due to	
	insufficient circulation	
Finance	Rapid expansion of online	Customer preference for
	banking Virtual currency is	individual support and
	becoming increasingly	small regional providers
	important Outsourcing of back-	Online banking is
	office operations to specialized	gaining ground very
	suppliers	slowly due to persistent
	Focus is on investment	security issues
	banking, corporate business	
	and a large	
	volume of individual business	

Personal	Intermediary services via	Households prefer social
services /	information platforms	services to personal
medicine	Increasing intensity	services. Low
	of social service technologies	acceptance of home
	Digital medical technology	robots The use of digital
	is highly developed	medical technologies
	Domestic robots and digital	was slowed down by the
	home technologies are widely	issues with data
	used	protection
Public	Heavy promotion of digital	Technology policy
sector	technologies Forced expansion	focuses on core
	of digital networks Internet	technological
	administration of digital traffic	competencies and
	management systems	adaptation of digital
		technology
		diversification
		Careful expansion of
		networks Careful shift to
		Internet administration
Information	Strong growth momentum from	Growth remains slow
technology	technological changes High	Specialization as a
industry	specialization in production	provider of services of
	control, logistics, network	adaption of mainly
	technologies High research and	foreign IT products. It is
	technological development	a leader in the industry
	costs Domestic producers are	of IT security. Rising
	trying to become the top IT	imports of IT research
	providers	focus on basic research
		Low-level specialization
		1

Source: personal research

Digital technologies have proven their great potential in many fields of social security, including health care, safety at work, fee collection and data exchange. They make it easier to help people in need, such as elderly people with reduced mobility or people with disabilities. They also improve service quality and the integrity of business processes, while reducing operating costs. As a key component of the Digital Revolution, digital platforms are expanding rapidly due to their scalability, flexibility and adaptability. On the one hand, digital platforms create new demands and new opportunities, instantly matching supply and demand with low cost. On the other hand, they transform the labor market, challenging traditional forms of labor and fragmenting the labor force. This way, lifelong learning programs and innovative training programs have become indispensable to avoid large-scale job displacement, possibly caused by

automation and robotics, and to equip current and future generations of workers with the necessary skills. After all, if data is a vital part of the digital economy, there is no doubt that data is a vital part of social security. As a part of their activities, social protection agencies accumulate a huge amount of personal data of participants and beneficiaries in order to provide services with extra value, improve the design of the program and even predict the benefits that may be needed in the future. Therefore, they have to make sure that this additional convenience outweighs the risk of misuse of the collected data. In this balance, it is important that the benefit to the individual is clearly greater than the risk.

In order to ensure an effective and timely response to these challenges, social security agencies need to adapt to meet new needs and reduce the two main risks: the increasing finance gaps and the disappearing funding base. In this regard IASB has identified six priority areas of action:

- Legal certainty and harmonization of the employment status of platform employees
- Ensuring of sustainable financing of social security systems
- Data protection
- People-oriented coordination
- Development of human capital in the long term
- Building of the appropriate information policy.

Paradoxically, however, many citizens and recipients of social services do not use electronic services. That is why it is important to study the role of the information space in modern society and public policy. This role consists in the ability of the information space to display and subsequently change social processes (including political processes), as well as the interests of people dominating the political process. The most important function of the information space is that not every kind of information can serve as the basis of its structure. In this case, we are talking only about social information (as opposed to statistical, semantic, combinatorial, etc.), since it is social information that is directly related to the comprehension and interpretation of data and messages formation, with an understanding of what is contained in them. But even social information itself may not be of social significance if it is not communicated to any consumer. In terms of content, the information space is not just a mechanical sum of resources and means of processing them, but also a certain configuration of the relations of various public entities to these resources and means. In other words, all the information that enters the information space is a reflection of the

information that already takes place in the social space. Each sphere of public life has its own reflection, its own segment in the information space. It is important that its segments are not identical to the similar segments of the social space, just as social and information processes are not identical and do not coincide. Subsystems of the information space are: the media, the set of readers and editorial organizations, as well as the information product that they create and distribute. Effective functioning of the information space is possible only when the media system is complete.

Integrity will be ensured when:

- various social forces have equal opportunities (within the framework of the law) to access the information space and spread their views in society;
  - mass media work to strengthen and expand information relations;
- the information process provides a wide range of opportunities for any citizen, social group, or state institution to become involved in the spiritual potential of society on a permanent basis;
- guaranteed information security for the individual, society and state in the information space.

For political science, the second circumstance is of much greater interest, since the connection with the real social space determines the content of the information space to a greater extent than the technical parameters of information systems.

The connection is determined by social processes (including political processes), as well as the interests of the people that dominate the political process. The information space is to a certain extent independent in relation to the social space. This independence manifests itself in the appearance of subjects that act only in the information space and have their main interests in it.

The formation of information space of modern society begins with informatization, whose main goal is to fully satisfy the information needs of individuals, society and the state in all spheres of activities, improve living conditions of the population and the efficiency of social production, help stabilize the sociopolitical relations in the state through the introduction of computer technology and telecommunications.

The main problem of information policy within the framework of the technical and communication approach is the development of communication tools. At the same time, the development of the technical communication has the prerogative.

Within the framework of the state approach, a number of scientists define information policy exclusively as the prerogative of the state.

Within the framework of the social approach, information policy is understood as a set of goals and methods for achieving sustainable development of the information sphere of society and the state or national interests in the information sphere. In other words, it is understood as certain regulatory actions in the information sphere of public life only.

The research considers information policy as a set of targeted measures of public authorities, that are implemented in cooperation with other political institutions, elements of civil society and other social subjects with the aim of personality development, development and regulation of society through media and the development and regulation of information and technical spheres of society and the state.

The main functions of the information policy are:

- 1. Stimulation of the harmonious development of the individual, society and the state by means of information.
  - 2. Regulation of public relations by means of information.
- 3. Regulation of relations between individuals, society and the state by means of information by the supreme authority.
- 4. Simplification and facilitation of information relations between the individual, society and the state.
- 5. Provision of objective information about the state and development of society for individuals, the public and public authorities.
- 6. Creation of the greatest opportunities for effective actions of individuals, society and the state in the information space.

The worldview component of the formation and implementation of information policy provides knowledge, understanding and perception by various subjects of sociopolitical actions of political reality that manifests itself in the information space and then, accordingly, affects the authors, authorities, the public and citizens - that is, society as a whole.

The functional component of the state information policy shows the degree of activity of various subjects in the information space.

### **CONCLUSIONS AND SUGGESTIONS**

Thus, the research makes it possible to draw conclusions about the need to create conditions for digitalization of the state. In fact, digitalization will allow us to achieve not only economic but also social growth. The ability to use digital resources has proven its effectiveness at the current stage of the crisis caused by the COVID-19 epidemic: from the ability to communicate with relatives and social services, purchase

necessary goods and medicine to full-fledged work at home. The analysis of the selected countries indicates the connection between the development of digital technologies and socio-economic development and encourages further scientific research on the topic.

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