

LEGAL PECULIARITIES OF "DIGITALIZATION" OF THE ECONOMY IN THE CONTEXT OF THE DEVELOPMENT OF THE INFORMATION SOCIETY IN UKRAINE

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Abstract. Digitalization of the economy is a determining factor in the growth of the economy as a whole, including the digital industry itself, as a producer of technology. Digital technologies in many sectors are at the core of production strategies. Their transformative power is changing traditional business models, production chains and processes, and driving new products and services, platforms and innovations. Digital technologies in Ukraine should be available both in terms of organizational and technical access to the relevant digital infrastructures and from the financial and economic point of view, that is, by creating conditions and incentives that will encourage businesses to digitalize. The result of such activities will be the modernization of the economy, its recovery, and increased competitiveness. The digital economy involves the introduction of digital technology in all areas, namely: production, education, medicine, tourism, social sphere. Spheres of life that are modernized with the help of "digital" technologies become much more efficient and create new value and quality, which very often leads to a complete transformation of the old system (Zhukova). Analysis of recent studies and publications. The problems of development of the digital economy and the formation of the information society are actively discussed in the domestic scientific literature, in particular in the works of R. Avdeyev, F. Gurov, L. Kit, S. Kolyadenko, D. Makovskyi, I. Malik, N. Meshko, I. Melyukhin, V. Pylypchuk, A. Prokofyev, Ye. Putilova, O. Ryzhenko. The authors substantiate the main conceptual categories and methodological approaches to the definition of the basic components of the modern model of socio-economic development and ways of implementing digital economy tools in the economic environment. At the same time, the theoretical understanding and scientific justification of the issues of informatization of society is the subject of scientific discussion by foreign researchers. R. Inclar, R. Cleo, A. Krimes, T. Nibel, J. Wright have made significant contributions to the development and implementation of innovative digital strategies. S. Haller, M. Hague and other scientists. However, many aspects of the impact of the digital economy on the institutional status of the state remain unexplored. That is why it is extremely important for Ukraine in such a difficult period of its development to transform the traditional economy into a modern information and digital economy as soon as possible.

Key words: digital economy, legal regulation, services, "digitalization" of business, industry, digital leadership, digital infrastructure, digital skills, digitalization of the country, public policy, etc.

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Introduction

"Digital" economy is a key driver of competitiveness, productivity, innovation and economic growth of Ukraine in the global "digital and economic" environment. "Digital" economy is the basis of the strategy of the future, the core of its content is the introduction of digital technologies in this sphere.

"Digital" technologies are necessary to improve the efficiency of Ukrainian industry, and in some industries, they are becoming the basis of production strategies. Their transformational power changes traditional business models, production chains, and causes new products and innovations. In turn, the implementation and maintenance of the digital economy is carried out

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by the digital industry. The driving force of the digital economy is human capital, i.e., people's knowledge, talents, skills, abilities, experience, and intellect. In this regard, the expansion of "digital" technology makes people's digital competence key among other competences.

The international digital economy is developing in such areas as: "An Industrial Policy for the Globalization Era"; "Digital Agenda for Europe"; "The Entrepreneurship Strategy".

Today in Ukraine an official and objective vision of the development of "intellectually capacious, creative, innovative markets", in particular "digital" is just being formed. Therefore, the introduction of digital technologies and global information highways into Ukrainian society is a priority of successful public policy. In the long term, it will develop, multiply and use the capabilities of intelligence to create digital added value.

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1. Research methodology

1.1. Digital economy as an object of legal research

Ukraine identifies five basic elements that constitute the essence and direction of the digital economy development:

"Digital" industry, i.e. the field of ICT as a branch of the economy;

"Digital" infrastructure;

"Digitalization" of business, industry;

"Digital" skills, competencies and leadership;

"Digital" culture (Digital Agenda of Ukraine – 2020).

1. The Digital Industry program is the realization of the idea of a "smart factory," based on the concept of "digitalization" of industrial production in order to improve their operational and business efficiency. Smart Factory appeals to technologies such as cloud computing, wireless communication, remote control and maintenance, cybersecurity, control system integration, value chain integration and collaboration improvement, 3D printing, and others. The introduction of this idea provides an opportunity to increase the competitiveness of industries, stimulate the domestic market, and maintain and strengthen its position in high value-added sectors at the national and, in some cases, global level. However, this is only an opportunity to gain relevant knowledge, experience, advice, to learn and see this new field with one's own eyes. In addition to informational and educational work, Ukrainian

politicians, government agencies and businesses are developing comprehensive initiatives to implement targeted educational initiatives to integrate ICT best practices into industrial sectors, involving relevant associations, vendors, international brands, etc. Focus groups of experts, knowledge carriers and promoters are formed and linked with industry sectors; digital transformation roadmaps are created for individual enterprises and industries. Such roadmaps are a plan of action and initiatives for "digitalization", and for many companies, a plan for reanimation and return to the economic environment.

The integration of "digital" technologies into production processes, or the "digitalization" of industry, is gradually becoming a priority of state industrial policy. The crucial role in this today is held by the state, accordingly, it acts in three directions: creating the infrastructure of "Industry 4.0" (industrial parks and industry technology centers), access to capital to create new innovative production facilities, and development of "digital" skills to train personnel capable of working with "Industry 4.0" technologies.

Accordingly, industrial parks for Ukraine are one of the main factors in accelerating economic development. The most effective strategy is for Ukrainian entrepreneurs and enterprises to be willing, able and competitive in the global market. According to a UNIDO (UN) study, incentives for industrial parks include: loans at special preferential rates; tax and duty exemptions; rental subsidies; provision of land on favorable terms; subsidized rates for electricity and water; preferential rates for telecommunications services; simplified regulatory procedures / "one window"; collective use of services and assets; creation of housing and communal infrastructure for employees (Zhukova).

Access to capital implies the introduction of state instruments of direct support to innovative enterprises through the introduction of state grants for the implementation of innovative projects; reduced tax rates; tax credits; accelerated depreciation of equipment used in innovative production; tax vacations for newly created innovative industries. Thus, state policy on the implementation and development of digitalization of the economy can be divided into direct support for innovative enterprises and support for the development of the venture capital market. Moreover, in terms of support of the venture capital market, the following measures are relevant:

- elimination of double taxation of investors participating in the formation of venture capital funds;
- increasing the liquidity of risky investments based on the development of the capital market, including through the creation of special exchanges for trading securities of new companies that cannot gain access to traditional stock exchanges for lack of financial history and any other formal attributes;

- legislative provision of conditions for entry into venture funds by institutional investors (e.g., pension and insurance funds, banks);
- lowering the entry threshold for the private venture capital investor in venture capital funds;
- tax cuts on dividends received on the shares of venture capital funds or companies;
- exemption from income tax received from the sale of shares in venture capital structures;
- state risk insurance;
- the creation of venture capital trusts (investment companies that provide tax benefits in exchange for investment commitments) (Zhukova).

2. Digital skills are designed to help digital economy professionals become more skilled and in demand, and retraining is designed to help people become proficient in other promising professions of the future. The World Economic Forum's report on the future of jobs predicts that 75 million jobs in the 20 largest countries will be replaced by new technology in the near future. But this does not mean that technology will displace people from the labour market. The same report said that technological advances could create 133 million new jobs. But they will still require the right skills and competencies (Digital Agenda of Ukraine – 2020).

defines digital competence as "the confident, critical and creative use of ICT to achieve goals related to work, study, leisure and participation in society". Digital competence is a core competence, the presence of which contributes to the formation and development of other key competences. In Europe, digital competence was defined by the EU Parliament in 2006 as one of the 8 key competences important for everyone's life in the information society (Recommendation 2006/962 / EC of the EU Parliament and of the Council dd. 18.12.2006, Official Journal 394 dd. 30.12.2006). Thus, in the EU Recommendations on Key Competencies for Lifelong Learning, digital competence "implies confident and critical use of ICT for work, leisure and communication." (Recommendation of the European Parliament, 2006:15–16) This requires basic ICT skills, such as using computers and other computer devices to search, evaluate, store, create, present, and share data, as well as the ability to communicate and work with Internet services to share information. Digital competence is also present in the updated structure of key competences for lifelong learning (Council Recommendation dd. 22.05.2018 on key competences for lifelong learning, OJ C 189, 04.06.2018). Appropriate clarifications have been made to account for developments in digital technology (Council Recommendation, 2018: 9–10) (Leadership in the digital age), namely digital competence "provides confident, critical and responsible use of digital technologies for learning, working and living in society." It includes: information literacy, media literacy, data processing using digital

technologies (digital data processing), communication and cooperation with the use of digital technologies (digital communication and collaboration), ability to create digital content (including programming), information security (digital well-being and competencies related to cybersecurity), awareness of intellectual property related issues, ability to solve problems with the use of digital technologies (problem solving with digital tools), and critical thinking (What is infrastructure, types of infrastructure, the concept of IT infrastructure).

At the same time, people should understand the general principles and mechanisms underlying digital technology; know the basic functions and principles of using various devices, software, computer networks for social integration, cooperation with other people, creative development to achieve personal, social or commercial goals; be critical and reasonable about the reliability and impact of various data; be familiar with the legal and ethical principles associated with the use of digital technology.

Digital leadership defines productivity today. However, the corporate world is still dominated by a hopelessly outdated leadership model. It was created at a time when it was believed that leaders should use their vision and skills solely to create a financially sustainable, results-oriented organization. It almost completely ignored the fact that leaders could be anything but "hyper-rational economists. The emotional components of leadership were considered something not usually talked about out loud (Leadership in the digital age). In the cyber age, leaders face the growing pressure of globalization, the rapid development of technology, the virtualization of the work environment (when members of an organization are separated not only by vast distances, but also by cultural barriers), and "chronic" information overload. This is why modernizing a leader that is able to learn how to respond more productively to complex situations and develop emotional skills that will help become a more effective leader is another area of development and improvement in the digital economy.

3. The digital infrastructure, the framework of the digital economy, is a set of interconnected parts of a single process that is provided by several automated information systems that exchange data with each other. Low-level systems are mechanisms for implementing the tasks performed by high-level systems. It is a large integrated system that fully supports all the activities of an organization. Like any system, it needs to be purposefully designed to function properly (Leadership in the digital age).

Fixed telecommunication infrastructure (trunk, distribution and local networks, traffic exchange points, etc.), mobile telecommunication infrastructure (3G, 4G, radio and satellite technologies, Wi-Fi, etc.), digital television infrastructure (terrestrial, cable, satellite),

radio infrastructure long range frequency (unlicensed frequencies) for Internet of Things projects (sensors, controllers, etc.), Computing infrastructure – data processing and storage centres (so-called cloud or virtualized infrastructure), cyber security infrastructure, specialized infrastructures (special networks, video surveillance, related engineering systems). Soft identification and trust infrastructure (trust services, citizen ID, BankID, mobileID) open data infrastructure, interoperability infrastructure (API, European ISA standards). E-commerce infrastructure (digital b2b buying and selling platforms, electronic contracts, electronic invoices, electronic supply chains), transaction processing infrastructure (online payments, cashless instruments, fintech services). Public services infrastructure (e-government) life support infrastructure (digital health, education, transportation, logistics and other services, public safety services), geoinformation infrastructure (linking digital data to spatial objects), industrial digital infrastructure (Industry 4.0, cyber systems) (What is infrastructure, types of infrastructure, the concept of IT infrastructure).

4. Digitalization of business, industry opens the way to innovative ways of business and enterprise development, for example, cloud technology allows multiple teams to work simultaneously on one project and efficiently use company resources. Using the Mobile First strategy, companies get and monetize mobile traffic that has already caught up with traffic from stationary devices.

Ready-made solutions save time on tasks. Various programs, extensions and connectors optimize the company's work with minimal time spent on implementation and adaptation. All these and other digital transformation technologies have made the entry threshold into many areas lower. It has become easier to start and grow one's own business thanks to the huge number of tools provided by the digitalization of industries and businesses (Ukraine's Digital Economy: It's Time to Act).

2. Results and discussion

2.1 Features of the legal regulation of "digitalization" of the economy

It should be noted that "digitalization", "digital agenda" and related components, initiatives and projects significantly "fall out" of the current legislation in Ukraine.

At the same time, it should be noted that the current legislation of Ukraine does not regulate all aspects of digitalization of the economy. Today, the legal regulation is slow. The first regulations that introduced the basics of digitalization were the following Laws of Ukraine: "On Access to Public Information", "On Personal Data Protection", "On the List of Licensing Documents in the Economic Sector", "On Free Legal

Aid" etc. These regulations defined the legal instruments and introduced the performance of public administration. Then there was detailing and highlighting the features of the digitization of the public sphere, respectively, the following regulations were adopted: Order of the Cabinet of Ministers of Ukraine "On approval of the Concept of development of electronic government in Ukraine" from December 13, 2010 № 2250, which was finalized in 2017 and approved in a new version; by the Order of the Cabinet of Ministers of Ukraine dated September 20, 2017 № 649-p., which, in turn, became the basis for the adoption of the Order "On Approval of the Information Society Development Strategy in Ukraine" of May 15, 2013 № 386, and Order of the Cabinet of Ministers of Ukraine "On approval of the Concept of development of the digital economy and society of Ukraine for 2018-2020 and approval of the plan of measures for its implementation" of January 17, 2018 № 67-p.

The most important were such regulatory acts as: Order of the Cabinet of Ministers of Ukraine "On Approval of the Action Plan for the Implementation of the Concept of Creation and Functioning of the Information System of Electronic Interaction of State Electronic Information Resources" of July 11, 2013 No. 517-p.; Order of the Cabinet of Ministers of Ukraine "On approval of the action plan for the implementation of the Concept of creation and functioning of the automated system Single window for electronic reporting" of October 17, 2013 № 809; Order of the Cabinet of Ministers of Ukraine "On Approval of the Concept of the State Targeted Program of Creation and Operation of the Information System of Administrative Services for the Period until 2017" of July 24, 2013 № 614-p.

As for the legal regulation of digitalization of the economy, the main legal act today is the Law of Ukraine "On Stimulation of Digital Economy Development in Ukraine", which defines organizational, legal and financial principles of the legal regime "Diia City", introduced to stimulate the digital economy in Ukraine by creating favorable conditions for innovative business, building digital infrastructure, attracting investment, as well as talented professionals. The legal regime of "Diia City" applies to a relations involving an "Diia City" resident or a participation in the authorized capital of an "Diia City" resident during the period of one's residence (As a digital transformation will help the development of your organization?).

The next landmark document affecting the development of digitalization of the economy is the Resolution of the Verkhovna Rada of Ukraine "On Adoption of the Draft Law of Ukraine on Amendments to the Tax Code of Ukraine to Stimulate the Development of the Digital Economy in Ukraine," which

lays the preconditions for increasing the investment attractiveness of Ukraine and is expected to strengthen Ukraine's competitiveness in the global market of IT services (Fishchuk).

The draft law is aimed at providing tax incentives for the IT-industry, together with the draft Law of Ukraine "On Stimulation of Digital Economy Development in Ukraine" establishing a comprehensive system of measures necessary for the development of the digital economy in Ukraine. The project provides for the introduction of a number of measures to stimulate the development of the IT-industry, namely:

- special tax regime for residents of Diia City, IT-companies that will meet the requirements of the Law of Ukraine "On Stimulation of Digital Economy Development in Ukraine" and will be included in a special register maintained by the authorized body (the central executive body in the field of digital economy);
- special regime of taxation of certain income of employees of "Diia City" residents and their attracted gig-specialists (specialists who perform work (provide services) within the economic activity of "Diia City" residents on the basis of gig-contracts concluded in accordance with the Law of Ukraine "On Stimulation of Digital Economy Development in Ukraine" (On stimulating the development of the digital economy in Ukraine).

2.2. Public administration as a subject of promotion of the basic principles of "digitalization" of the economy

Digitalization becomes a priority for state development with consistent and effective steps to implement institutional change. In this regard, the creation of the State Agency for E-Governance of Ukraine was introduced, on the basis of which the Ministry of Digital Transformation was created, the head of which is the Vice-Prime Minister. According to the resolution of the Cabinet of Ministers of Ukraine dd. September 18, 2019 № 856, the Ministry becomes the main body for the formation and implementation of state policy in the areas of digitalization, digital development, digital economy, digital innovation, e-government, e-democracy, information society development, informatization; in the field of development of digital skills of citizens and digital rights of citizens; in the field of open data on development of national information resources and interoperability, development of broadband Internet and telecommunications, e-commerce and business infrastructure; in the field of electronic and administrative services; in the field of electronic trust services and electronic identification; in the field of IT industry development (Explanatory note to the draft Law of Ukraine).

Thus, the policy of every modern democratic country should be service-oriented in its relations with the citizen. According to the basic international norms of human rights, the human being is a basic value, and respect for human rights should be a task to which all peoples and all states should aspire (Universal Declaration of Human Rights, 1948). Governments should create and develop a legal framework, promote scientific and technical justification, develop and implement digitization of documents of public authorities. The initiative to create unifying platforms for digital data and registries of government services was implemented in Ukraine similar to the results achieved with the support of European and Estonian partners. Currently, the system of electronic interaction of Ukrainian state electronic information resources "Trembita", which is implemented and posted on the official website of the Ministry of Digital Transformation of Ukraine created the opportunity to use information and communication technologies that will facilitate the effective enforcement of human rights, quick and convenient use of databases of different entities (public authorities) to provide a competitive, fast, and efficient public service. Such development of information and communication technologies will allow control over the implementation of decisions and the effectiveness of numerous reforms, which are becoming a Ukrainian trend of changing political elites, and will prevent the avoidance of responsibility for lofty rhetoric and populism.

Conclusions

To summarize the above, it is believed that the "digital" economy and the features of its legal regulation need to improve in the following ways:

Introduction of professional and long-accepted terminology: digital transformation, digital economy, digital industry, digital infrastructure, digital society, digital citizenship, digital identity, digital skills, digital competencies, digital divide, digital dividend, digital leap, digital value added, digital trends, digital critical technologies, digital currency, etc.

Creation of a national system of digital statistics (the so-called "digital barometer") and the launch of national models for calculating the digital economy (GDP), digital industry, digital value added, etc.

Definition of digital human rights (equal access to digital infrastructure, digital technology).

Definition of the principles of digitalization and the formation of the principles of the Digital Code: digitalization is not an end in itself, it creates advantages, contributes to the development of the information society; a platform for economic growth and global competition; standardization, a priority object of public administration, etc.

Harmonization with global digital indices and rankings as benchmarks for achieving national digital development goals – for example, Networked Readiness Index (WEF), Global Innovation Index (INSEAD, WIPO), Broadband Penetration Index (ITU), Computer Literacy Index, E-government Development Index, Digital Economy and Society Index, ICT Development Index (ITU).

Defining the principles of digital dictatorship (the maintenance and development of any analog system is carried out only in the absence of a digital alternative). That is, the physical system becomes the alternative and the digital system becomes the normal state of operation. There are no resources to maintain the two systems at the same time.

Development of packages of universal (standard) digital services, i.e., standard packages of digital services in education, medicine, ecology, security, social and other areas, which should be available in digital mode for every citizen, and corresponding to certain technological and functional parameters. For example, a digital universal education service might include a student's tablet, digital multimedia content, Internet access from the workplace (actually wi-fi in every classroom), a smart board, and so on.

Development of a system to stimulate Industry 4.0, including the adaptation of international standards in this area, mechanisms for creating industry technology transfer centers, engineering clusters, the creation of roadmaps for the digital transformation of individual industries and the creation of digital industrial platforms.

Development of a National Broadband Plan, which would define the stages of building telecommunications infrastructures (primarily fixed, since everything can be done with a cell phone), and most importantly, such a plan should harmonize investments by private fixed providers with government plans to meet broadband access needs (education, medicine, tourism, agricultural sector).

Defining mechanisms for bridging the digital divide. "Solid" digital infrastructure, primarily broadband

networks, should cover not only cities, but also outlying villages. "Bringing the possibilities of the city to rural areas" is the key objective of the project to overcome the digital divide in Ukraine. It is also about connecting remote schools, hospitals, etc. To do this, it is advisable to model the mechanisms of public-private partnership, such as the creation of the National Solution to The Digital Divide Fund as an infrastructure investment for Ukraine, business and citizens. In addition to the national fund, the creation of regional, i.e., actually Local Community Funds is justified. Such funding opportunities may be of interest to equipment manufacturers and direct investors.

Development of a comprehensive educational program for the acquisition of digital competencies and skills. Identification of priority "National Projects of Digital Transformation", i.e., critical areas at the national level for the implementation of "digital" transformation initiatives and projects in such priority areas as public safety and security, secondary school, health, e-democracy, digital television, ecology and environmental protection, smart city, smart infrastructure, electronic payments and settlements, "cashless economy", "digitalization" of the social sphere, e-commerce, etc.

Defining a governance and implementation model for the "digital agenda," from coordination (e.g., "Digital Government Committee") to national and regional level architecture. It is important to create a mechanism for the preparation and support of digitalization investment projects, including the use of public-private partnership models (aka Build-Operate-Transfer, etc.) (Pechenkin).

The development of the "digital" economy contributes to the rise and mobility of this sector, creating a field for large-scale projects and initiatives. When Ukraine becomes a testing ground for "digital" transformations, it will attract the attention of investors, step by step it will become an innovative leader. Life in the "digital" economy will provide citizens with new opportunities for business and self-realization, learning, creativity, recreation.

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