Legal principles of ensuring social security in the conditions of digitalization of Ukraine

Правові засади забезпечення соціального захисту в умовах цифровізації України

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Abstract

The transformation of society is due to the development of the information society and the gradual transition to the knowledge society, the impact of digitization on all spheres of life of society and citizens. Recently, the issue of the transformation of social security in the context of the development of digitalization of all spheres of the life of the state and society has been brought up to date.

The purpose of the article is to analyze the legal framework for ensuring social security in the context of digitalization in Ukraine with a view to developing the ways to improve the policy in this area.

The methodological approach of the article is based on a complex, interdisciplinary approach, the principle of historicism for conducting a legal analysis of normative legal acts in the field of social security of Ukraine for 1990-2022 in the conditions of digitalization.

The results demonstrate the dynamism of technology development and digitalization of society with slow legislative changes in the field.

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Introduction

At the stage of Ukraine’s formation as an independent state, considerable attention is paid to the development of the state’s social policy, the social sphere, in particular, social security issues, which are reflected in the state regulations. Modern digital technologies are significantly changing our lives, namely the way of production of products and services, methods and forms of education, and affect the social structure of society, the economy, politics, and the development of socio-cultural institutions. Moreover, the development of digital technologies has not only generated various social effects, but also contributed to the emergence of a new humanitarian knowledge, known as the concept of the information society. For this purpose, the state has developed social rules, laws, regulations, and standards that have become the cornerstone, on which the entire social security system of the country, society, and citizen is built. These are state social standards, i.e., social norms and standards established by laws and other regulatory legal acts, on the basis of which the basic state social guarantees are determined. This study is devoted to the analysis of regulatory documents, legislative acts, and laws on the legal framework for the formation of social security in the context of digitalization in Ukraine.

The purpose of the article is to analyze the legal framework for ensuring social security in the context of digitalization in Ukraine with a view to developing the ways to improve the policy in this area.

Literature Review

Analysis of the recent research and publications. The legal, organizational, economic, political, and other dimensions of social security are studied by scholars in the context of digital transformations and the introduction of technologies in the economy’s various sectors. Ilchuk (2016) provides general proposals for public policy measures in forming countermeasures to threats to the social security system. Lyndiuk (2022) pays attention to theoretical interpretations of the “social security” concept in Ukrainian scientific discourse, approaches to understanding its unity, and analyzes the genesis of its formation. Davidyuk (2002) reveals significant theoretical, methodological and practical issues of ensuring social security, drawing attention to the fact that “Ukraine continues to be on the dangerous edge in almost all the most crucial social indicators of world civilization development”. Separately, it is necessary to identify scientists who analyze modern trends, such as digitalization, digital technologies, and the information society (Karpenko et al., 2020). In particular, Karpenko et al., (2020) analyzed the history of digitalization in Ukraine. The scholars presented the major modern approaches to the definition of the concept, and showed ways and forecasts of further use of digital technologies in various spheres of community life. Lopushynskyi (2010) analyzed the latest scientific approaches to the “digitalization” of public administration and regulatory legal acts of the Ukrainian state, international treaties and program acts of the Ukrainian state, and international treaties and

2007 року в Україні впроваджуються законодавчі положення у досліджуваній сфері та концептуальні засади цифровізації соціально-економічніо системи. Комплексна цифровізація спрямована на всебічну та глибоку трансформацію існуючих аналогів економічних і соціальних систем і сфер у нову цінність яксть для забезпечення соціальної безпеки держави, суспільства та громадянина. Тому автори відмічають важливість приведення ключових законодавчих актів щодо ефективного впровадження цифрових технологій у подальшому розвитку соціальної забезпечення відповідно до стратегічних цілей держави та сучасних технологічних трендів.

Keywords: social security, digitalization, information society, legal consolidation of digitalization in Ukraine, principles of digitalization.

Ключові слова: соціальне забезпечення, цифровізація, інформаційне суспільство, правове закріплення цифровізації в Україні, принципи цифровізації.
program documents on implementation in the field of public governance. Yevsyukova (2021) studied the digital capacity of territorial communities in the current conditions of Ukraine’s development, drawing attention to the positive aspects of the digital capacity of territorial communities in Ukraine. In addition, the author explored the key aspects of the digitalization of territorial communities based on the seven principles of the “Good Governance” concept and identified the challenges of implementing digital information and communication technologies in the territorial communities’ activities. Yevsyukova (2021) characterized the prospects and proposed several measures aimed at overcoming the identified problems. The scholar drew attention to the need to form a progressive “digital” community as a result of strengthening the digital capacity of territorial communities in Ukraine, which in turn will reduce public distrust of the modern digital state. In the scientific work of Tarakanov, Inshakova & Dolinskaya (2019), the authors provide a detailed, comprehensive analysis of the issues related to transforming modern legislation in the context of developing the information society. Kuziemski & Misuraca (2020) discuss the impact of automated decision support systems on public services in public governance and the crucial role of government in the digital society, considering the need to protect citizens from the potential negative consequences of technology (e.g., data security, cybercrime). The study by Fatima, Desouza & Dawson (2020) examines the transformative impact of technology on various aspects of society, in particular, the national strategic plans of governments of different countries on the possibilities of modernizing the public sector through technology.

In the existing literature, the issue of ensuring social security in the conditions of digitalization is considered in the context of legal problems related to the need for legislative changes due to the emergence of new forms of employment. On the one hand, technologies contribute to expanding the potential of remote employment; while on the other hand, problems arise related to social security and employee protection.

In the conditions of automation and digitalization, new forms of employment are emerging in various professions and sectors, such as the digital platform economy (Behrendt, Nguyen & Rani, 2019).

Atypical forms of labor relations used by numerous online platforms (multilateral, hyper-
temporary, autonomous, off-site) are emerging and developing, often defined in the agreement as independent contracts. Such forms of employment cause problems with the application of labor and occupational safety and health legislation and employee protection in many countries. The latter automatically affects the social welfare of the population. The application of legal norms and principles generally depends on the existence of an “employment relationship”. Specific legal measures have been introduced in some European Union (EU) member states (e.g., France), to respond to these challenges (Garben, 2019). New forms of employment and work also pose social risks and negative consequences for the middle class in the age of digital technologies (Palier, 2019). In general, the emergence of new forms of employment requires the adaptation of existing social protection systems to the specific situation and workers’ needs to implement the human right to social security for everyone (Behrendt, Nguyen & Rani, 2019). For instance, platform workers face problems with access to effective social protection schemes. Consequently, they are not always able to obtain reliable social protection rights, even if they are able to participate in the schemes (Schoukens, 2020). In light of these problems, legal norms in the field of social security in the context of digitalization should be inclusive and adapted to all (new) types of labor (Schoukens, 2020).

At the same time, while paying tribute to the above-mentioned specialists and the results of their scientific research, the issues of legal regulation of digitalization as a factor of social security in Ukraine remain insufficiently studied in public administration science.

**Methodology**

The academic paper uses the method of legal analysis and interdisciplinary, comprehensive approaches to identify the system of legal principles for ensuring social security in the conditions of digitalization. The principle of historicism is used as a basis for considering the dynamics of legislative changes at the international and national levels in the field of social security. The comprehensive approach contributed to the perception of the place and role of social security in the national security of Ukraine and in the context of digital changes. The interdisciplinary approach provided a way to explore legal principles in the conditions of changing legislation in the field of social security and digital transformation. The authors analyze the legal acts of Ukraine for the period 1990 -
2022 posted on the website of the Verkhovna Rada and formulate a system of legal principles of social security in the conditions of digitalization.

**Results**

As a scientific concept, «social security» began to emerge in the late 1990s. At that time, this concept was associated with a number of factors that had an impact on the main spheres of human existence (biological, physical, psychological, material), thus identifying it with the concept of quality of life. In 1994, the United Nations Development Program (UNDP) identified seven components of human security: economic security (guaranteed minimum income); food security (physical and economic availability of food, health security (prevention of diseases); environmental security (access to clean drinking water, unpolluted air, land use system that preserves soil fertility); personal security (freedom from physical violence and threats); minority security (preservation of cultural identity); political security (protection of fundamental human rights and freedoms).

The World Social Declaration, 1995, ratified at the World Conference on Social Development (Austria), first declared the concept of World Conference on Social Development (Austria), for the first time declared the concept of «social security» was first declared, although it was not separated from the national security of the country (United Nations, 2023).

The Declaration formulates the basic principles of social aspects of sustainable development, which address the problem of social security in the world, in particular (Bilorus & Lukyanenko, 2001, p. 541):

- broad participation of civil society in the development and implementation of decisions that determine the functioning and well-being of society;
- large-scale models of stable economic growth and sustainable development and integration of the demographic aspect into economic development strategies that will accelerate the pace of sustainable development and poverty eradication, contribute to the achievement of demographic goals and improve the quality of life;
- fair and non-discriminatory distribution of the national product;
- interaction of market forces that promote social efficiency and social development;
- political and social processes characterized by the prevention of isolation and respect for the principle of pluralism and diversity, including religious and cultural diversity;
- strengthening the role of the family, as well as the role of the community and civil society and civil society;
- public policy that creates opportunities for people to lead healthy and productive life.

Domestic science and practice have not developed one generally defined concept of social security. The concept is interpreted from «the state of protection against threats to social interests, as well as a result of the implementation of social policy» (Libanova & Palii, 2004) to the definition of social security as «the social ideal of a stable society, its vital social interests and values, as well as social norms, as a set of conditions for stable development, which include: ensuring a high level of employment, formation of a resource base for development for future generations; ensuring an adequate standard of living and income of the population; providing social guarantees to employees» (Varnaliy, 2008).

The main domestic legal documents that have become the basis for the formation and implementation of an appropriate level of social security of the state, society and citizens are:

- Declaration of State Sovereignty of Ukraine (Declaration No. 55-XII, 1990),
- Constitution of Ukraine (Law No. 254к/96-BP, 1996),
- Concept (basis of state policy) of national security of Ukraine (Resolution No. 3/97-BP, 1997),
- On the Fundamentals of National Security of Ukraine (Law No. 964-IV, 2003),
- On the National Security Strategy of Ukraine (Decree of the President of Ukraine No. 105/2007, 2012),
- Sustainable Development Strategy «Ukraine – 2020» (Decree of the President of Ukraine No. 5/2015, 2015),
- On the National Security of Ukraine (Law No. 2469-VII, 2018),

According to these documents, the state has ensured the formation of favorable conditions for the realization of the interests of citizens, society and the state, further development of Ukraine as a democratic country with a stable and growing market economy, a state guided by European political and economic values, where respect and
protection of the rights and legitimate interests of all citizens, territorial communities, social strata, ethnic groups is a guarantee of independent, free, sovereign and democratic development of a united Ukraine.

At the same time, it should be recognized that despite the importance and relevance of the adopted laws, the concept of «social security» was not separately defined in legislative acts, or it was mentioned only in the sense of social protection or social policy in general. Only in 2007, the government approved the «Methodology for Calculating the Level of Economic Security of Ukraine», which for the first time at the legislative level defined the concept of «social security» as «a state of development of the state in which the state is able to ensure a decent and high-quality standard of living of the population regardless of the impact of internal and external threats» (Order No. 60, 2007). In 2015, the «Methodological Recommendations for Calculating the Level of Economic Security of Ukraine» were approved, which clarified the concept of «social security» (Order No. 1277, 2013). It was defined as «the state of development of the state, in which the state is able to ensure a decent and high-quality standard of living for the population, regardless of age, gender, or income level, promote the development of human capital as the most important component of the country’s economic potential» (Order No. 1277, 2013).

The modern period of Ukraine is associated with the formation and development of a digital state and society. Today, Ukraine faces the need to conceptualize the introduction of an information-based way of organizing society. This means, according to Politanskyi (2017, p.143), that «the strategy of forming the foundations of the information society should be considered in the context of the overall strategic priorities of social, economic and institutional development of the country as an organic component of large-scale transformations in society and government institutions».

The digital society makes it possible to increase national competitiveness in the most efficient and timely manner (Politanskyi, 2017):

− to increase national competitiveness through development of high-tech sectors of the economy and human potential, primarily in highly intellectual areas of labor;
− to improve the quality of life of citizens through economic growth, providing easy and universal access to information, knowledge, education, services, health care facilities and administrative services of state and local governments, and enhancing social protection of vulnerable groups through the widespread use of information and communication technologies;
− to promote the establishment of an open democratic society that will guarantee the observance of the constitutional rights of citizens to participate in public life (Politanskyi, 2017, p.145).

Among the first regulatory documents on the development of the digital society in Ukraine were the Law of Ukraine «On the Basic Principles of the Development of the Information Society in Ukraine for 2007-2015» (Decree No. 653-p, 2007) and the corresponding action plan approved by the Order of the Cabinet of Ministers of Ukraine (Decree No. 653-p, 2007), the Resolution of the Verkhovna Rada of Ukraine «On Recommendations of Parliamentary Hearings on the Development of the Information Society in Ukraine» (Resolution No. 3175-IV, 2005). At the same time, it should be emphasized that these legal acts failed to fully implement their provisions and fully meet the expectations of Ukrainian society, since technological transformations in real life were already at a different, next stage of development.

Currently, Ukraine, along with other countries, is actively implementing digitalization policy in various aspects.

In particular, the Law of Ukraine «On Electronic Trust Services» came into force in 2017 (Law No. 45, 2017). The purpose of state regulation and management in the areas of electronic trust services and electronic identification is to: conduct a unified and effective state policy in these areas; ensure interoperability and technological neutrality of national technical solutions, as well as prevent their discrimination; ensure equal opportunities for access to electronic trust services and protection of the rights of their subjects; prevent monopolization and create conditions for the development of fair competition in the field of electronic trust services; ensuring the protection of personal data in accordance with the relevant legislation; taking measures to popularize electronic trust services and electronic identification among the public and legal entities; monitoring transparency and openness in the areas of electronic trust services and electronic identification; promoting Ukraine’s integration into the global electronic information space (Law No. 45, 2017).
The national cybersecurity system has been established and is functioning in Ukraine. The national cybersecurity system is a set of cybersecurity entities and interrelated political, scientific, technical, informational, educational, organizational, legal, operational, investigative, intelligence, counterintelligence, defense, engineering and technical measures, as well as measures for cryptographic and technical protection of national information resources, cyber protection of critical information infrastructure (Law No. 2163-VIII, 2017).

In order to meet the interests and needs of individuals and legal entities, improve the public administration system, increase competitiveness and stimulate the country’s socio-economic development, the Cabinet of Ministers of Ukraine approved the Concept for the Development of Electronic Democracy in Ukraine (Order No. 797-p, 2017).

One of the first breakthroughs in the legislative consolidation of digitalization in Ukraine was «Concept for the Development of the Digital Economy and Society of Ukraine for 2018-2020» (Decree No. 67-p, 2018). The Concept regulates the concept of digitalization as the concept of digitalization as «saturation of the physical world with electronic and digital devices, means, systems and establishment of electronic communication exchange between them, which actually makes possible the integrated interaction of the virtual and physical, in other words, creates a «cyber-physical space» and defines the concept of digital infrastructure as «a set of technologies, products and processes that provide computing, telecommunications and networking capabilities on a digital basis».

Recently, the issues of social security development in the context of digitalization of all spheres of state and society have become relevant. High-quality and effective social security in the current conditions of informatization should be one of the main development priorities. This requires not only political and socio-economic conditions, but also proper legal support.

The mentioned Concept (Order of the Cabinet of Ministers of Ukraine «On the approval of the Concept of Development of the Digital Economy and Society of Ukraine for 2018-2020 and the approval of the plan of measures for its implementation», Decree No. 67-p, 2018) formulates the basic principles of digitalization. Adherence to these principles is crucial for creating a new legislative framework, implementing and taking advantage of the benefits provided by digital technologies in the formation and implementation of social security of the state, society and citizen. Let us focus on those principles that are directly related to improving social security.

These principles have already been partially implemented in practice. A great success in the introduction of digital technologies was the creation of the Ministry of Digital Transformation of Ukraine in 2019, one of the main goals of which is to transform all public services into convenient online services and transfer 100% of public services to the «Diia» portal by 2024 (Resolution No. 856, 2019). Almost half of Ukrainians are actively using the «Diia» state application, which has significantly improved the security of citizens and changed attitudes toward the state and the public administration system.

In 2020, President of Ukraine V. Zelensky launched the concept of the «State in a Smartphone», which significantly expanded and simplified online public services. The single online public service portal «Diia» provides administrative services for citizens and businesses in many areas, including: benefits and assistance; employment; health, including COVID certificate; certificates and extracts; licenses and permits; security and law enforcement; transport; land, construction, real estate; environment; documents and citizenship; entrepreneurship. Services related to the birth of a child have been optimized (e-Maliatko is a comprehensive service based on only one application, which includes up to 10 state services related to the birth of a child (registering the birth of a child, his or her place of residence, applying for financial assistance, etc.); pensions (e-Pension is a project of electronic interaction with state registers for the appointment, recalculation of pensions, surcharges, compensations); adoption of a child (the ability to submit an online application for consultation and an application for adoption, learn about further steps, required documents, frequently asked questions etc. (Diia, 2023).
Table 1.
**Principles of digitalization as a basis for social security of the state, society and citizen**

<table>
<thead>
<tr>
<th>Principles</th>
<th>Impact on social security</th>
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<tbody>
<tr>
<td>1. Digitalization should ensure that every citizen has equal access to services, information and knowledge provided through information, communication and digital technologies.</td>
<td>This principle determines the creation of digital infrastructures as a key factor in expanding citizens’ access to the global information environment and knowledge. Since 2011, free access to the Internet has been recognized by the UN as a fundamental human right - a digital right that significantly increases the social security of citizens.</td>
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<tr>
<td>2. Digitalization should be aimed at creating benefits in various areas of everyday life.</td>
<td>This principle means increasing the level of social security of citizens, society and the state through the quality of healthcare and education services, creating new jobs, developing entrepreneurship, agriculture, transport, environmental protection and natural resource management, improving culture, helping to overcome poverty, preventing disasters, ensuring public safety, etc.</td>
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<tr>
<td>3. Digitalization is carried out through the mechanism of economic growth by increasing efficiency, productivity and competitiveness through the use of digital technologies.</td>
<td>This principle implies comprehensive digitalization, which aims to comprehensively and deeply transform existing analog economic and social systems and spheres into new value and quality to acquire new competitive qualities and properties, their efficiency, development, usability, etc. Economic growth through digitalization directly or indirectly leads to an increase in the level of social security of citizens, society and the state.</td>
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<tr>
<td>4. Digitalization should contribute to the development of the information society and the media.</td>
<td>Information transparency, pluralism of information sources, efficiency and quality of information provision contribute to the development of social security of citizens, society and the state.</td>
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<tr>
<td>5. Digitalization must be accompanied by an increase in trust and security.</td>
<td>This principle states that social security of citizens, society and the state is impossible without an adequate level of information security, cybersecurity, protection of personal data, privacy and rights of digital technology users, and without strengthening and protecting trust in cyberspace. The main tasks of the state on the way to digitalization of the country are to correct the shortcomings of market mechanisms, overcome institutional and legislative barriers, launch national-level digital transformation projects and attract relevant investments, stimulate the development of digital infrastructures, create the need for citizens to use digital technologies and develop relevant digital competencies, create appropriate incentives and motivations to support digital entrepreneurship and the digital economy, which will have a positive impact on the social security of individuals, society, and the state.</td>
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<td>6. Digitalization as an object of focused and comprehensive public administration.</td>
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Source: based on (Decree No. 67-p, 2018).

A number of other digital tools in the area of social security have been introduced in the last few years. These include platforms such as «Electronic Petitions», «Electronic Consultations», «e-DEM», «SVOI», «Electronic Sick Leave», etc. A catalog of educational programs for university entrants has been developed with information on training specialists in artificial intelligence (data analysis, machine learning, computer vision, pattern recognition, natural language processing).

One of the most recent important laws that directly affects the development of social security of the state, society and citizens is the Law of Ukraine «On Amendments to Certain Laws of Ukraine on the Functioning of Integrated Information Systems in the Field of Education» (Law No. 2457-IX, 2020). According to the adopted Law, Ukraine is launching digital interaction between educational authorities of all levels, institutions, institutions and participants in the educational process, which will be implemented on the basis of the software and...
hardware complex «Automated Information Complex of Educational Management» (Law No. 2457-IX, 2020). The Law is aimed to accelerate the digital transformation of education, which will significantly increase the level of social security.

Today, Ukraine is already being put on a par with Estonia and South Korea, the world’s most effective digital democracies, where technocrats are working to make political activity more transparent and improve public services with the help of technology.

Despite these positive developments, there are still a number of strategic priorities in the field of digitalization, the achievement of which, in our opinion, should be a priority for the Ukrainian state in the medium term. In the context of improving social security in a digital state, it is important to:

- overcome the imperfection (obsolescence) of both the relevant legislative framework and the institutional model of management/regulation of a particular industry;
- avoid attempts to make point-by-point changes to bylaws that do not solve the problem, as they mostly correct legislative acts that are fundamentally outdated and refer to technological platforms, strategic objectives and public management practices (both managerial and regulatory) that have long since lost their relevance in developed societies;
- create mechanisms for the accessibility of e-platforms of digital services for different categories of citizens and socio-demographic groups, i.e., so that all citizens of Ukraine, without restrictions and difficulties of a technical, organizational, mental and financial nature, can use digital opportunities regardless of their location and other circumstances.

Therefore, the issue of bringing key legislative acts in line with the strategic goals of the state and current technological trends becomes relevant. That is why Ukraine still needs to do a significant amount of work to understand and adapt the concept of digital society, comprehensive informatization in the Ukrainian context, and develop and implement the National Strategy for Modern Information and Communication Development.

Special attention should be paid by lawmakers and other actors to aligning the digitalization of the state and society with an appropriate level of social security for citizens, protecting their digital rights, minimizing digital inequality, which is closely interrelated to digital accessibility and digital competence, ensuring the inclusiveness of public digital services, etc.

**Conclusions**

The analysis of the national regulatory and legal framework has led to the conclusion that it is expedient to enshrine the concept of social security at the legislative level, and it is important to give the concept of social security a digital dimension which significantly expands the boundaries of the interpretation of social security of an individual, society and the State.

The study conducted in the field of legal regulation of social security in the context of digitalization allows us to assert that Ukraine needs to correlate existing legislation with modern digital requirements, to develop a concept of information (digital) legislation that will regulate all spheres of the country’s life, taking into account the peculiarities of ensuring the social security of the State, society, and the individual in modern conditions and taking into account existing challenges and threats.

We believe that it is time to create a Digital Code of Ukraine, which would include all regulatory documents, standards and amendments to civil, administrative and criminal legislation to ensure the social security of the state and civil society in the field of digital technologies.

It is important to bring key legislative acts on the effective implementation of information (digital) technologies for the further development of social security in line with the strategic goals of the state and current technological trends, which are the main criteria for Ukraine’s approximation to democratic European values and are a demanded reality of society.

Thus, the ongoing social and digital transformations require a prompt response from the state’s legal system to ensure effective legal regulation of social relations in all areas of life without exception.

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