

# Digital Social State: Peculiarities of Functioning in the Context of European Integration

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**Summary:** The ever-increasing use of information and communication technologies in new areas is resulting in fundamental changes in the social life of modern states. While digitalization processes began in the economy, they quickly flowed into the public sphere, giving rise to the concepts of the information society and the digital state, in which public affairs, administration, and political decision-making are carried out with the help of information technology. The basic principles of the digital state are the following: no barriers to the information flow; putting people at the center of the state's attention, ensuring a comprehensive solution to their problems; transparency of public authorities and the possibility of citizens' participation in decision-making processes; respect for citizens' right to privacy. The intersection of social policy and digitalization is a crucial aspect of modern governance and social development. Social policy refers to government initiatives and interventions aimed at improving the well-being of citizens, addressing issues such as healthcare, education, unemployment, and poverty. Digitalization, on the other hand, involves the integration of digital technologies into various aspects of society, including communication, economics, and governance. The implementation of digitalization in the most important areas of state responsibility fosters the gradual transformation of the welfare or social state.<sup>1</sup> Today, many governments are transforming the welfare state into a digitalized form to automate eligibility assessments, benefit calculations, fraud detection, and risk assessment. The welfare state seeks to make citizens economically motivated, competitive, flexible, active, and responsible instead of trying to protect them from cycles of accumulation and market crises<sup>1</sup>. The digitalization of the welfare state is also accompanied by the decentralization of social policy and the transfer to the municipal level of

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<sup>1</sup> SCHOU, J., HJELHOLT, M. Digitalizing the welfare state: citizenship discourses in Danish digitalization strategies from 2002 to 2015. *Critical Policy Studies*. 2019, vol. 13, Issue 1, p. 3–22.

responsibility for youth care, social security, and care for the chronically ill and elderly. This step is intended to bring state social assistance closer to the population, as well as to make it more efficient and cheaper. The transformation of the social welfare state into a digital welfare state generates new social risks, such as systemic errors; discrimination; exclusion and inequality in access to social security, resulting from data leaks faced by citizens; the creation of new forms of data-driven control instead of adequate service delivery within social policy; and the negligence of automation and data processing in social policy, which sometimes leads to numerous false accusations of fraud and, consequently, deprivation of benefits. As a result, the use of new technologies, such as artificial intelligence, semi-automated algorithmic systems, and automated decision support to reduce welfare fraud is currently being criticized.<sup>2</sup>

In the context of European integration, in particular within the European Union, the issue of the digital social state is one of the key ones and can be considered as an integral part of both European social policy and digitalization policy.

The documents adopted by the European Union in various spheres of cooperation, which in one way or another address social issues, indicate that today the integration organization is a flagship in shaping the model of relations between the individual and the state in the social sphere in the context of active digitalization.

**Keywords:** digitalization, welfare/social state, digital welfare/social state, European Union, social rights, European social policy, protection of social rights in Ukraine

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<sup>2</sup> YAKOVIYK, I. The emergence and development of the concept of the welfare state. *Bulletin of the Academy of Legal Sciences of Ukraine*. 2001, no. 2, p. 25–34.

# 1. Introduction

The convergence of social policy and digitalisation is a critical aspect of modern governance and social development. Social policy refers to government initiatives and interventions aimed at improving the well-being of citizens, addressing issues such as healthcare, education, unemployment and poverty. Digitalisation, on the other hand, refers to the integration of digital technologies into various aspects of society, including communication, economics and governance. There is a link between the development of the information society, including the e-economy, and the welfare state: they are not antagonistic but complementary. Some countries are successfully implementing the idea of combining technological and economic success with the realisation of social justice and equality.

It is obvious that the shift towards mandatory digitalisation is contributing to the gradual transformation of the welfare state. Today, many governments are turning the social welfare state into digital form in order to automate eligibility assessment, benefit calculations, fraud ion and risk assessment. The transformation of the welfare state into a digital welfare state generates new social risks, which increases the significance of further researches.

The development of technology naturally leads to the transformation of all areas of social life to a greater or lesser extent.

The ever-increasing use of information technologies in more and more areas is causing fundamental changes in the social life of modern states<sup>3</sup>. Although digitalisation processes began in the economy, they gradually spread to the public sphere, giving rise to the concepts of the information society and the digital state.

Digitalisation launched fundamentally new challenges for the welfare state. Society needs a “Welfare State 4.0” that will more effectively protect against fundamentally new risks to life and allow people to keep up with the changing world of work. Today, it is not enough to just discuss the opportunities and risks associated with digitalisation. It is necessary to take advantage of the opportunities it offers, to use them to improve the efficiency of the welfare state and ensure the social rights of citizens.

<sup>3</sup> According to the President of the Ukrainian Chamber of Commerce and Industry, Hennadiy Chyzhykov, digitalisation is the foundation of modern security and trade. Digitalisation is at the heart of Ukraine’s modernisation process and is an important factor of transparency that will help attract foreign investors. This obviously requires new competences and skills that partially replace the old ones and continue to evolve with the emergence of new technologies, new rules and new ways of using them. Resource: *A high level of digitalisation is one of Ukraine’s key investment advantages*. 24.07.2023 [online]. Available at: <https://uccr.org.ua/press-center/uccr-news/visokii-riven-tsifrovizatsiyi-nalezhit-do-kluchovikh-investitsiynikh-perevag-ukrayini>

“Social State 4.0” or “Welfare State” is a concept that has been discussed in various contexts, primarily focusing on the evolution of social policies and state governance in response to rapid technological advancements and the changing nature of work and society. The problem of digitalisation of the welfare state attracts considerable attention of researchers, since, according to P. G. Alston, the digital welfare state is already a reality or an emerging reality in many countries around the world. In such countries, data and digital technologies are increasingly crucial in protection and social support systems, where they are used to automate, predict, identify, monitor, detect, and punish individuals <sup>4</sup>.

At the same time, along with the advantages that result from the digitalisation of the social sphere, there are certain disadvantages. For example, as noted by Hennadii Buriak and Hryhorii Yovdii, digital systems can be vulnerable to cyberattacks and privacy violations. Insufficient cybersecurity can lead to the leakage of personal information of citizens or even to its misuse. They also note that ‘the introduction of digital technologies can lead to the exclusion of groups that have limited access to digital resources. This can exacerbate inequalities and make it harder to access public services and opportunities’<sup>5</sup> (this will be discussed further in the article).

## 2. Digital state and digital welfare/social state (general theoretical approach)

Nowadays, experts in various scientific areas quite reasonably recognize the digitalization of both individual segments of social life (economy, business structures, education, medicine, etc.) and the entire complex of social relations as an indisputable attribute of modern social development and its inherent trend. Digitalization, along with the rapid development of electronic networks and the revolution in the field of information management, are now one of the main drivers of the new economic, social and cultural paradigms<sup>6</sup>. In turn, digitalization has become one of the most popular trends in political, economic and legal discourses <sup>7</sup>. The pro-

<sup>4</sup> ALSTON, P. L'État-providence numérique et les droits de l'homme. *L'intelligence artificielle en questions – revue quart monde*. 2021, no. 259, p. 36.

<sup>5</sup> BURIK, H., YOVDI, H. Digital state: problems, tools for their solution and the future of the E-citizen in the Smart city. *The Golden Age of Ukraine* [online]. Available at: <https://zovu.org/digital-state-problems-tool/>

<sup>6</sup> BOYKO, N. L. The Internet as a resource for the democratization of Ukrainian society: Dissertation of Doctor of Sociology: 22.00.04. Kyiv, 2021, p. 142.

<sup>7</sup> PIZHUK, O. Digital transformation of the Ukrainian economy: limits and opportunities : monography. Irpin: University of the State Fiscal Service of Ukraine, 2020. 504 c. and STRUTYNSKA, I.

cesses of digitalisation have an impact on traditional social institutions, including the state. Today, it is possible to argue with certainty that digital technologies play a crucial role in the interaction of the state with its citizens and other users of public services, and are the means used for governance, etc. These technologies are profoundly changing the way the state develops and implements its policies. The COVID-19 pandemic has forced many countries to increase remote work in their public services, introduce digital tools to provide services to citizens, such as online tax declaration submission, online voting, online judicial activities, and the digitalisation of the immigration system. As a result, computer technology is no longer a niche factor in the work of departments that process big data, but is a central part of government activities, which both contributes to their efficiency and helps reduce corruption risks.

As mentioned above, the ever-increasing use of information technologies in more and more areas of public and state life is causing fundamental changes in the functioning of modern states.

Although the digitalisation processes were initially initiated in the economic sphere, they quickly spread to the public sphere<sup>8</sup>, giving rise to the concepts of the information society and the digital state, in which public affairs management, administration and political decision-making are carried out with the help of information technology. This is due to the fact that the innovative economy required innovative governance not only to become a flexible and responsive entity, but also to create the necessary policies and platforms to facilitate the operation of a dynamic digital economy. Moreover, digitalisation is also considered in the context of ‘freeing up resources’ as a tool to rescue national welfare state models after the financial crises<sup>9</sup>.

It should be noted that throughout industrial history, technological revolutions have had a powerful impact on society and labour markets. Social policy measures have been developed and implemented in response to these changes, and in the long run, the social impact of technological change has been largely positive. The situation changed at the beginning of the 21st century. In the 2010s, advances in digital technologies and artificial intelligence sparked a broad debate in Western countries on the question as to how social policies should be

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Digital transformation as an imperative of innovative development of business structures: Dissertation of Doctor of Economics: 08.00.04. Zaporizhzhia, 2020, p. 55.

<sup>8</sup> From the very outset, digitalisation initiatives have been focused on the private sector of the economy to stimulate the growth of high-tech industries, as well as to improve the quality of public services and make processes more efficient. This reflected the goals of broader ‘knowledge economy’ strategies.

<sup>9</sup> The digital path to future welfare: eGovernment strategy 2011–2015. *Copenhagen: Agency for Digitisation* [online]. Available at: [https://digst.dk/media/12703/tilgaengeligt\\_engelsk\\_strategi.pdf](https://digst.dk/media/12703/tilgaengeligt_engelsk_strategi.pdf).

reformed to ensure that the Fourth Industrial Revolution<sup>10</sup> benefits both people and economies.

New technologies raise new questions for society or change the view on long-standing problems in the social sphere, which need to be addressed with the help of a balanced policy that would simultaneously protect the interests of the individual and not have the features of excessive state interference in the private sphere<sup>11</sup>.

In general, digital innovations have been used as tools that make people's daily lives easier and improve their access to information and services.

At the same time, rapid technological development is a new challenge for the functioning of states that declare themselves as being social. In this context, it should be noted that both the industrial production system (digital transformation is giving rise to a new era of industrial activity – Industry 4.0) and the system of social redistribution are undergoing digital transformation. While production systems are developing and adapting relatively quickly, redistribution systems in socially oriented states depend on social choices and tend to develop very slowly.

<sup>10</sup> According to Chunguang Bai, Patrick Dallasega, Guido Orzes, Joseph Sarkis, the term „Fourth Industrial Revolution“ (4IR) or „Industry 4.0“ refers to the rapid technological advancements of the 21st century. It builds upon the foundation laid by the Third Industrial Revolution (the Information Age) and marks a new era of industrial development characterized by the convergence of various technologies such as artificial intelligence (AI), gene editing, advanced robotics, and more. These technologies are increasingly interwoven, blending the physical, digital, and biological realms in ways that are changing industries, economies, and societies. The concept was popularized in 2016 by Klaus Schwab, the founder and executive chairman of the World Economic Forum (WEF). Schwab argues that the 4IR signifies a major shift in how industrial capitalism functions, with profound implications for businesses, workers, and governments. This revolution is not only technological but also has wide-ranging impacts on every aspect of life, including the way we communicate, work, and interact with the environment. In essence, the Fourth Industrial Revolution represents the shift toward automation and data exchange in manufacturing, driven by technologies such as cyber-physical systems (CPS), the Internet of Things (IoT), cloud computing, cognitive computing, and artificial intelligence. Resources: BAI, C., DALLASEGA, P., ORZES, G., SARKIS, J. Industry 4.0 technologies assessment: A sustainability perspective, *International Journal of Production Economics*. 2020, vol. 229, 107776 [online]. Available at: <https://www.sciencedirect.com/science/article/pii/S0925527320301559>. For more details on the influence of 4.0 industry on the development of social sphere see also: SCHIELE, H., BOS-NEHLES, A., DELKE, V., STEGMAIER, P. and TORN, R.-J. Interpreting the industry 4.0 future: technology, business, society and people. *Journal of Business Strategy*. 2022, vol. 43, no. 3, pp. 157–167; ROSS, P., MAYNARD, K. Towards a 4th industrial revolution. *Intelligent Buildings International*. 2021, no. 13 (3): 159–161; PARK, H.-A. (10 November 2016). Are We Ready for the Fourth Industrial Revolution? *Yearbook of Medical Informatics*. 2016, no. 25 (1): 1–3, PHILBECK, T., DAVIS, N. (2018). The Fourth Industrial Revolution. *Journal of International Affairs*. 2018, no. 72 (1): 17–22.

<sup>11</sup> For more details see: HENMAN, P. Digital Social Policy: Past, Present, Future. *Journal of Social Policy*. 2022, vol. 51(3), p. 535–550.

And the existing social protection architecture is under additional strain. Therefore, for modern states, a critical aspect of governance and social development is the introduction of digitalisation into social policy and consideration of both the positive and negative consequences of this combination. Social policy, in turn, refers to government initiatives and interventions aimed at improving the well-being of citizens, addressing issues such as healthcare, education, unemployment and poverty. Digitalisation, on the other hand, involves the integration of digital technologies into various aspects of society, including communication, economics and governance.

Processes of digitalisation of the social sphere have led to the development of the concept of a digital welfare/social staty. Despite the fact that this topic is one of the most popular areas of academic research (M. R. Busemeyer, A. Kemmerling, K. van Kersbergen, P. Marx [12], M. Choroszewicz, B. Mäihäniemi<sup>13</sup>, B. Greve<sup>14</sup>, R. F. Jørgensen<sup>15</sup>, J. S. Pedersen, A. Wilkinson<sup>16</sup> and other), it has not received sufficient attention in Ukrainian science, including legal one (V. Haidamaka<sup>17</sup>, E. Najafli<sup>18</sup>, I. Yakoviyk<sup>19</sup>).

At the same time, the majority of digital social state concepts are usually based on general ideas about a modern digital state, the fundamental principles of which are: the absence of barriers to the flow of information; putting an individual at the centre of the state's concern, thus ensuring a comprehensive solution to his or her problems; transparency of public authorities' activities

<sup>12</sup> BUSEMEYER, M., KEMMERLING, A., Van KERSBERGEN, K., MARX, P. (eds.). *Digitalization and the welfare state*. Oxford University Press, 2022, 432 p.

<sup>13</sup> CHOROSZEWICZ, M., MÄIHÄNIEMI, B. Developing a digital welfare state: Data protection and the use of automated decision-making in the public sector across six EU countries. *Global Perspectives*, University of California Press, 2020, vol. 1, issue 1 [online]. Available at: <https://doi.org/10.1525/gp.2020.12910>.

<sup>14</sup> GREVE, B. The digital economy and the future of European welfare states. *International Social Security Review*. 2019, vol. 72(3), p. 79–94.

<sup>15</sup> JØRGENSEN, R. (2023). Data and rights in the digital welfare state: the case of Denmark. *Information, Communication & Society*, 2023, vol. 26(1), p. 123–138.

<sup>16</sup> PEDERSEN, J., WILKINSON, A. The digital society and provision of welfare services. *International Journal of Sociology and Social Policy*. 2018, vol. 38(3/4), p. 194–209.

<sup>17</sup> HAYDAMAKA, V. Theoretical and legal principles of the functioning of the welfare state in the context of European integration: PhD thesis; specialty: Law, Kharkiv: Yaroslav Mudryi National Law University, 2023, p. 79–93.

<sup>18</sup> NAJAFLI, E. Digital state in the context of legal reform in Ukraine: theoretical and legal aspect. *Law and Safety*. 2022, vol. 85(2), p. 202–217.

<sup>19</sup> YAKOVIYK, I. Digital social state: problems of formation. Modern issues of development of branches of science: materials of the II International Scientific Conference, Chernihiv, 1 December, 2023. *International Centre for Scientific Research. Vinnytsia: UKRLOGOS Group LLC*. 2023, p. 171–173.

and the possibility of citizens' participation in decision-making processes; and protection of citizens' right to privacy.

The concept of a digital state generally describes the introduction by the state of information and communication technology tools to improve and optimise government functions and ensure efficient service delivery to citizens. Such implementation involves the use of modern digital technologies, such as the Internet, cloud computing, Big Data, artificial intelligence (AI), the Internet of Things (IoT), blockchain, etc., all to increase the availability of public services to citizens and reduce the bureaucratic burden on the state<sup>20</sup>. In addition to improving the efficiency of public service delivery, the digital state should ultimately contribute to accelerating economic growth and ensuring more open and transparent governance<sup>21</sup>.

In turn, a 'digital social welfare state' is a state in which public authorities use modern technologies to provide a wide range of public services in the areas of social protection and assistance, public education and healthcare. Such a digital welfare state introduces a new regime of public service delivery and social welfare that is closely linked to digital data and technology, leading to new forms of control and support. However, the digital welfare state is not a new type of state, but a qualitative characteristic of the welfare state in the 21st century<sup>22</sup>.

Digitalisation of the social sphere is usually explained as follows:

- it ensures efficiency and cost reduction and staff savings<sup>23</sup>;
- simplification of forecasting;

<sup>20</sup> In general, the basic principles of the digital state include:

1. Electronic government (e-Government).
2. Digital identification.
3. Open Data.
4. Digital security, which also refers to cyber defence, personal data protection and the fight against cybercrime.
5. Active participation of citizens in decision-making and governance through digital platforms and tools.

<sup>21</sup> The digital state requires broad cooperation between government agencies, the private sector and civil society, as well as ensuring the availability of information and communication technologies infrastructure and training of digital literacy skills.

<sup>22</sup> For more details see: VAN TOORN, G., HENMAN, P., SOLDATIĆ, K. Introduction to the digital welfare state: Contestations, considerations and entanglements. *Journal of Sociology*. 2024, vol. 60(3), p. 507–522.

<sup>23</sup> However M. Lipsky points out that not all categories of workers involved in the implementation of social policy are 'suitable' for digitalisation. In particular, social workers, who rely on intuition and a comprehensive understanding of clients in their work, are difficult to replace with digital mechanisms. Instead, these technologies are well adapted to the public sector, where the workload is heavy and resources are limited. Resource: NAJAFLI, E. Digital state in the context of legal reform in Ukraine: theoretical and legal aspect. *Law and Safety*. 2022, vol. 85(2), p. 161.

- personalization. Personalization involves identifying vulnerable groups, with the government focusing on tailoring services to meet their needs. A data-driven approach helps pinpoint individuals and groups where positive outcomes have been achieved, allowing for the exclusion of those who have not benefited from such services;
- implementing innovations in the delivery of social services;
- flexibility in responding to significant changes in public life;
- enhancing customer service quality. For instance, the adoption of websites and smartphone apps has facilitated the shift from the traditional 9-to-5 administration to 24/7 availability<sup>24</sup>;
- improved management and reporting. Digitalisation encompasses not only informatisation, but also the creation of data, information and, consequently, knowledge. This knowledge is key to effective social policy management, understanding the needs of citizens and adjusting (revising) social policy. Digital data and algorithmic approaches to decision-making are changing the very nature of accountability processes. During administrative review and appeals, digital data can provide objective evidence of administrative actions, computer algorithms can explain decisions, and computer code can be subject to external audit<sup>25</sup>.

This list of characteristics is obviously not exhaustive, but it allows us to form an idea of the main functional features of the modern digital welfare state and understand the directions of its social policy.

When characterising the digital welfare/social state, it could be concluded that technological advances have also affected the mechanisms for changing the content of social policy<sup>26</sup>, as evidenced by the increased codification, detailing, differentiation and personalisation of social policy implementation. The use of

<sup>24</sup> HAYDAMAKA, V. *Theoretical and legal principles of the functioning of the welfare state in the context of European integration : PhD thesis; specialty: Law*. Kharkiv: Yaroslav Mudryi National Law University, 2023, p. 82.

<sup>25</sup> Adler, M., Henman, P. (2001). e-justice: A comparative study of computerization and procedural justice in social security. *International Review of Law, Computers & Technology*. 15(2), 195–212.

<sup>26</sup> It should be noted that the first steps towards the digitalisation of social policy were taken in the 1960s and 1970s. Thus, as early as 1959 The UK's Department for Pensions and National Insurance used equipment for automatic data processing. In 1967, the Australian Department of Social Security began making electronic payments to pensioners. In 1972, Norway introduced the practice of fully automated legal decision-making for the calculation of housing benefits. In the 1970s, local authorities in the United Kingdom began to computerise records of social services provided. However, in general, the issue of digital technologies has been virtually absent from social policy research over the past fifty years. This is usually explained by the fact that technology is seen as an unusual and exotic phenomenon that is not relevant to understanding society and social dynamics. Social policy researchers usually lack sufficient training in technical issues and therefore feel ill-equipped to study them

big data analysis methods influences the shaping of social policy, in particular in the areas of social investment, targeted decision-making and determining directions in the field of social security, child care and protection, provision of social services, etc. The application of digital technologies by the welfare state also allows for the decentralisation of social policy, which is accompanied by the transfer of responsibility for caring for socially vulnerable groups and populations (young people, disabled people, large families, the poor, the chronically sick and the elderly) to the municipal level. In theory, this should bring social assistance closer to service recipients and make the services themselves cheaper and more efficient. At the same time, in most countries, even the most developed ones, municipal authorities do not have sufficient experience and structural means to create their own data warehouses, develop a functioning dashboard, and develop forecasting systems. This leads to increased public-private cooperation, which is undoubtedly a positive trend.

In addition to its positive features, the digitalisation of the social sphere can also be a source of new social risks and challenges<sup>27</sup>, including systemic errors; discrimination; exclusion and inequality in access to social security, resulting from data leaks faced by citizens; the creation of new forms of data-driven control instead of adequate service delivery in social policy; and the negligence of automation and data processing in social policy, which sometimes leads to numerous false accusations of fraud and, consequently, deprivation of social benefits. As a result, the use of new technologies, such as artificial intelligence, semi-automated algorithmic systems and automated decision support to reduce welfare fraud is currently being criticised.

When evaluating the risks of digitalisation in the social sphere, attention is drawn to the fact that national governments often introduce into the public consciousness the idea that the digital welfare state is the only altruistic and noble project designed to guarantee that citizens benefit from new technologies, more efficient management and a higher level of well-being. However, an analysis of foreign studies shows that the digitalisation of social welfare systems is often accompanied by deep reductions in the overall social welfare budget, reducing the number of beneficiaries, eliminating some services, introducing more demanding and intrusive forms of conditions, seeking to change behaviour, introducing more severe sanctions regimes and completely revising the idea that the state should be accountable to the individual <sup>28</sup>.

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<sup>27</sup> YAKOVIUK, I. The emergence and development of the concept of the welfare state. *Bulletin of the Academy of Legal Sciences of Ukraine*. 2001, no. 2.

<sup>28</sup> What the «digital welfare state» really means for human rights. URL: <https://www.openglobalrights.org/digital-welfare-state-and-what-it-means-for-human-rights/>.

Some researchers also argue that digitalisation can indeed reduce personal biases in decision-making, but at the same time erode democratic values such as accountability and transparency. The exclusion of the human factor from the process of providing public services can be seen as a violation of the very essence of social security administration. It has been argued that “the nature of service delivery requires human judgement, which cannot be programmed and cannot be replaced by machines”<sup>29</sup>.

Critics of the digital welfare state point out that the transition to big data-based social policy is taking place almost entirely outside of political and public control. In particular, studies show that political parties do not seek to “bring out” the digitalisation of social policy during election campaigns<sup>30</sup>. Undoubtedly, the absence of a broad public debate and democratic mandate on the use of data in social policy is unacceptable for a democratic state.

As mentioned above, the digital welfare state expands the list of socially vulnerable groups, which should include not only those who do not have access to social services such as education, healthcare and employment, but also those who do not have access to the Internet, do not have digital skills and are excluded from the digital welfare state system<sup>31</sup>.

When determining the disadvantages of the digital welfare state, it is worth considering the possibility that such a state may contribute to the emergence of a digital technocracy that perceives citizens not as individuals with rights and freedoms, but as objects for calculation and prognosis. This may have a negative impact on the concept of the welfare state, as it is closely linked to the guarantee of human rights<sup>32</sup>.

The digitalisation of the social sphere also raises questions about ethical standards of data management. The problem of ensuring confidentiality and ownership of data that can be transferred, for example, to social sector administrators, has been and remains relevant. For the latter, the purpose of collecting

<sup>29</sup> BULLOCK, J. Artificial intelligence, discretion, and bureaucracy. *American Review of Public Administration*. 2019, vol. 49(7), p. 751–761.

<sup>30</sup> KRUITER, A. Gemeenteraadsverkiezingen: Dit thema wordt onderbelicht door alle politieke partijen. *Brainwash*. 21 maart 2018 [online]. Available at: <https://www.brainwash.nl/lees/politiek/2018/gemeenteraadsverkiezingen-dit-thema-wordt-onderbelicht-door-alle-partijen.html> and COLLINGTON, R. Disrupting the welfare state? Digitalisation and the retrenchment of public sector capacity. *New Political Economy*. 2022, vol. 27(2), p. 312–328.

<sup>31</sup> LARASATI, Z., YUDA, T. and SYAFA'AT, A. Digital welfare state and problem arising: an exploration and future research agenda. *International Journal of Sociology and Social Policy*. 2023, vol. 43, no. 5/6, p. 537–549. and VAN TOORN, G. Automating the welfare state, *The Routledge Handbook of the Political Economy of Health and Healthcare*. Taylor & Francis, 2024, p. 259–270.

<sup>32</sup> YAKOVIYK I. Development of the concept of socio-economic rights as a prerequisite for the formation of a welfare state. *Problems of legality*. Kharkiv, 1998, issue 35, p. 22–27.

and processing such data is primarily to provide support, not to detect fraud in big data projects.

The digitalisation of the justice system, in particular the possibility of “robo-judges” and “robo-administrators”, also evokes ambiguous and rather negative reactions. However, optimists still advocate the digitalisation of legal services and increasing the predictability and efficiency of decision-making, which is positive from the perspective of human rights observance. Critics, on the other hand, are warning of the possibility of new forms of social control, arbitrariness and inequality.

It is clear that universal guidelines need to be developed to explore the opportunities offered by the digital welfare state and to define the legal boundaries of its activities. It is also crucial for the state to ensure a clear and predictable legal framework for the use of artificial intelligence in the public service delivery system and in the social sphere in general.

The legislator is therefore responsible for providing guarantees that protect individuals and their rights from abuse and arbitrariness in the development and application of new technologies<sup>33</sup>. Hanna N. emphasizes that governments need to build their capacity and learn to play new and expanded roles that are appropriate for the digital age. The relevant role of the welfare state is not static. It has to evolve in the same way as the economy and technology. This evolution must proceed at a faster pace than it has in the past, in response to the rapidly evolving digital revolution and emerging policy challenges<sup>34</sup>.

### **3. EU approach to digital welfare/social state**

Digitalization in the social sphere is undoubtedly an important component of development not only for individual nation states, but also for highly integrated organizations such as the European Union, which today plays a leading role in shaping the modern vision of the welfare state and social policy in general. Today, the European Union supports the use of various digital tools in the coordination of, for example, social security, which provides numerous benefits, including: reducing administrative costs and burdens for people moving to another country or doing business there; improving the quality of public services and speeding

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<sup>33</sup> RACHOVITSA, A., JOHANN, N. The human rights implications of the use of AI in the digital welfare state: Lessons learned from the Dutch SyRI case. *Human Rights Law Review*. 2022, vol. 22(2), p. 1–15.

<sup>34</sup> HANNA, N. A role for the state in the digital age. *Journal of Innovation and Entrepreneurship*. 2018, vol. 7: 5, issue 1, p. 1–16 [online]. Available at: <https://doi.org/10.1186/s13731-018-0086-3>

up the processes of interaction in the field of social security; promoting better cooperation between organizations and information exchange through improved data exchange and automation; reducing the risk of errors and fraud in the field of social security, in particular regarding false documents, which in turn increases worker protection and ensures fair labour mobility<sup>35</sup>. In addition, given the fact that the EU social policy relates to different areas of the Union's competence (exclusive competences of the EU, shared (with member-states) competences and supporting competences.), the European Union develops and adopts a large number of documents with varying degrees of legal binding force. This, in turn, allows the EU to be flexible and respond quickly to changes resulting from the development of technology.

The digital transformation is crucial for the EU's economic growth and strategic independence. The EU is actively addressing various policy areas to pave the way for a digital future in Europe. Boosting digitalisation offers numerous advantages to society. The EU aims to enhance its digital sovereignty and establish its own standards, rather than adopting those set by others, to ensure Europe is prepared for the digital era<sup>36</sup>.

The EU's strategies for digitalization aim to make technological transformation benefit people and businesses<sup>37</sup>.

For a general characterization of the legal regulation of the implementation of digital technologies in the social sphere at the EU level, several examples can be cited. For example, the EU rules on the coordination of social security (including Regulation (EC) No. 883/2004<sup>38</sup> and Implementing Regulation (EC) No. 987/2009<sup>39</sup>

<sup>35</sup> Digitalisation in social security coordination. Employment, Social Affairs and Inclusion. European Commission official site [online]. Available at: [https://employment-social-affairs.ec.europa.eu/policies-and-activities/moving-working-europe/eu-social-security-coordination/digitalisation-social-security-coordination\\_en](https://employment-social-affairs.ec.europa.eu/policies-and-activities/moving-working-europe/eu-social-security-coordination/digitalisation-social-security-coordination_en)

<sup>36</sup> Shaping the digital transformation: EU strategy explained. European Parliament, 2023 [online]. Available at: [https://www.europarl.europa.eu/pdfs/news/expert/2021/4/story/20210414STO02010/20210414STO02010\\_en.pdf](https://www.europarl.europa.eu/pdfs/news/expert/2021/4/story/20210414STO02010/20210414STO02010_en.pdf)

<sup>37</sup> Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions. Shaping Europe's digital future. Brussels, 19.2.2020 COM (2020) 67 final [online]. Available at: EUR-Lex – 52020DC0067 – EN – EUR-Lex

<sup>38</sup> Regulation (EU) 1231/2010 of the European Parliament and of the Council of 24 November 2010 extending Regulation (EC) no. 883/2004 and Regulation (EC) no. 987/2009 to nationals of third countries who are not already covered by these Regulations solely on the ground of their nationality [online]. Available at: <https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX%3A32010R1231>

<sup>39</sup> Regulation (EC) No 987/2009 of the European Parliament and of the Council of 16 September 2009 laying down the procedure for implementing Regulation (EC) No 883/2004 on the coordination of social security systems (Text with relevance for the EEA and for Switzerland). *OJ*

as amended<sup>40</sup>) recommend that EU Member States use digital technologies to access, process and exchange data in the field of social security. As of January 1, 2011. Regulation (EU) No. 1231/2010 extends the rules for the coordination of social security in the European Union to non-EU nationals (third-country nationals) legally residing in the EU and in a cross-border situation. Their family members and survivors are also insured if they are in the European Union<sup>41</sup>.

The European Commission and EU Member States are currently working on two key initiatives in this area:

*A. To facilitate information exchange and cooperation between social security agencies.* For this purpose, the Electronic Exchange of Social Security Information (EESSI) system<sup>42</sup> [26] helps social security organizations to exchange information across the European Union. Employees of social security institutions can find the correct destination in participating countries by referring to a publicly accessible repository of national institutions<sup>43</sup>. This allows national authorities to process social security claims, such as unemployment or health benefits, family allowances or pensions, more securely and quickly. As of June 2023. EESSI unites around 3,400 institutions in 32 member states: 27 EU member states, Iceland, Liechtenstein, Norway, Switzerland, and the United Kingdom. For direct digital interaction between a citizen and an institution in the EU member state, the European Social Security Passport (ESSPASS) is used<sup>44</sup>, which is a project designed to simplify the exercise of social security rights when people are in another European country<sup>45</sup>. ESSPASS builds on existing EU digital initiatives, including:

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L 284, 30.10.2009, p. 1–42 [online]. Available at: <https://eur-lex.europa.eu/eli/reg/2009/987/oj/eng>

<sup>40</sup> Amendments were introduced by Regulation (EC) No. 988/2009, Commission Regulation (EU) No. 1244/2010, Regulation (EU) No. 465./2012 and Commission Regulation (EU) No. 1224/2012.

<sup>41</sup> Regulation (EU) 1231/2010 of the European Parliament and of the Council of 24 November 2010 extending Regulation (EC) no. 883/2004 and Regulation (EC) no. 987/2009 to nationals of third countries who are not already covered by these Regulations solely on the ground of their nationality [online]. Available at: <https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX%3A32010R1231>

<sup>42</sup> Electronic Exchange of Social Security Information (EESSI). Employment, Social Affairs and Inclusion. European Commission official site [online]. Available at: <https://ec.europa.eu/social/main.jsp?catId=1544&langId=en>

<sup>43</sup> Public Access Interface. URL: <https://ec.europa.eu/social/social-security-directory/pai/select-country/language/en>

<sup>44</sup> This initiative is part of the European Pillar of Social Rights Action Plan.

<sup>45</sup> European Social Security Pass. Employment, Social Affairs and Inclusion. European Commission official site. [online] Available at: <https://ec.europa.eu/social/main.jsp?catId=1545&langId=en>

- European Union Digital Identity (EUDI)<sup>46</sup>;
- The EU Digital Single Gateway Regulation<sup>47</sup>. Under the Digital Single Gateway Regulation, December 2023, people and businesses should have had access to three fully online social security coordination procedures, the results of which are delivered electronically. Other procedures other than those required to be digitised under the Digital Single Gateway Regulation are scheduled to be digitised by 2025, such as unemployment benefits, workplace accidents, occupational diseases and healthcare;
- The European Blockchain Services Infrastructure (EBSI) is a pan-European initiative that leverages blockchain technology to provide cross-border digital services for public administrations, businesses, and citizens<sup>48</sup>.

*B. To simplify the interaction between citizens, businesses, social security organisations and other government agencies.* As part of the European Social Security Passport initiative, the European Commission has launched a pilot project to explore the possibility of digitally verifying citizens' social security rights across borders. As it is well known, in September 2023, the European Commission issued a Communication to EU institutions, outlining measures to streamline access to social security services across borders by fully leveraging digital tools and reducing the administrative burden on citizens and businesses<sup>49</sup>. The European Commission calls on Member States "to:

- accelerate the national implementation of the Electronic Exchange of Social Security Information (EESSI) system so that it is fully operational across

<sup>46</sup> Regulation (EU) No 910/2014 of the European Parliament and of the Council of 23 July 2014 on electronic identification and trust services for electronic transactions in the internal market and repealing Directive 1999/93/EC. OJ L 257, 28.08.2014, p. 73–114 [online]. Available at: <http://data.europa.eu/eli/reg/2014/910/oj> and new Regulation (EU) 2024/1183 of the European Parliament and of the Council of 11 April 2024 amending Regulation (EU) No 910/2014 as regards establishing the European Digital Identity Framework PE/68/2023/REV/1. OJ L, 2024/1183, 30.04.2024 [online]. Available at: <http://data.europa.eu/eli/reg/2024/1183/>

<sup>47</sup> Regulation (EU) 2018/1724 of the European Parliament and of the Council of 2 October 2018 establishing a single digital gateway to provide access to information, to procedures and to assistance and problem-solving services and amending Regulation (EU) No 1024/2012. PE/41/2018/REV/2. OJ L 295, 21.11.2018, p. 1–38 [online]. Available at: <http://data.europa.eu/eli/reg/2018/1724/oj>

<sup>48</sup> European Blockchain Services Infrastructure (EBSI). Available at: <https://interoperable-europe.ec.europa.eu/collection/digital-building-blocks/solution/european-blockchain-services-infrastructure-ebsi>

<sup>49</sup> Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: on digitalisation in social security coordination: facilitating free movement in the Single Market. Brussels, 06.09.2023 COM(2023) 501 final [online]. Available at: [file:///C:/Users/Windows/Downloads/COM\\_2023\\_501\\_1\\_EN\\_ACT\\_part1\\_v4.pdf](file:///C:/Users/Windows/Downloads/COM_2023_501_1_EN_ACT_part1_v4.pdf)

Europe by the end of 2024. Thanks to the Electronic Exchange of Social Security Information (EESSI) system, social security institutions in Member States have processed 16.5 million social security cases of people traveling, living, studying and/or working in another EU country faster and more securely since 2019. Every month, 2.5 million electronic messages are exchanged;

- introduce more procedures for the coordination of social security fully online to make it easier for people to move and work abroad, and to guarantee them quick access to the relevant benefits. Member States may draw on the Digital Single Gateway Regulation, which provides for the full online implementation of certain important administrative procedures for citizens and businesses by December 12, 2023;
- fully participate in the pilot activities of the European Social Security Passport (ESSPASS), which explore ways to simplify the issuance and verification of citizens' social security rights abroad;
- work towards the introduction of EU Digital Identity (EUDI) wallets, which will allow European Union citizens to carry digital versions of entitlement documents such as the European Health Insurance Card (EHIC), making it easier for social security institutions, labor inspectorates and healthcare providers to instantly verify these documents”<sup>50</sup>.

The European Commission supports EU Member States in implementing these actions by providing technical assistance through the Technical Assistance Instrument and by providing funding, for example, through the Digital Europe Program, InvestEU, the European Regional Development Fund, the European Social Fund Plus.

Earlier, in 2021, the European Commission set up a high-level group on the issue of adapting the welfare state to the future, including the digital one; on 9 March 2021, the European Commission presented a specific vision, goals and ways to enable a united Europe to become a leader in the digital sphere by 2030, set out in the Communication “Digital Compass 2030”: The European path for the digital decade”<sup>51</sup>. The implementation of this goal involves assessing the effectiveness of the European Union in achieving the goals and objectives of Europe by 2030, with a focus on the following main areas: digital skills, digital

<sup>50</sup> HAYDAMAKA, V. Theoretical and legal principles of the functioning of the welfare state in the context of European integration : PhD thesis; specialty: Law, Kharkiv: Yaroslav Mudryi National Law University, 2023. P.87

<sup>51</sup> Proposal for a Decision of the European Parliament And Of The Council establishing the 2030 Policy Programme “Path to the Digital Decade” Brussels, 15.9.2021 COM(2021) 574 final. 2021/0293(COD) [online]. Available at: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex:52021PC0574>

infrastructure, digitalisation of business, including the use of artificial intelligence, and digitalisation of public services, in particular in the field of social policy.

Achieving this goal also includes monitoring the inter-institutional European Declaration of Digital Rights and Principles (2022)<sup>52</sup>, which reflects the European Union's commitment to a secure and sustainable digital transformation, putting people at the centre. The European Digital Rights and Principles complement existing rights, such as data protection, e-privacy and the rights set out in the Charter of Fundamental Rights of the European Union. The principles are organised around 6 themes: putting people and their rights at the centre of digital transformation; supporting solidarity and inclusiveness; ensuring freedom of choice in the Internet; promoting participation in the digital public space; enhancing the safety, security and empowerment of individuals; promoting the sustainable development of the digital future.

As a result of the implementation of measures in all these areas, everyone in the EU should have access to safe, secure and privacy-protecting digital technologies, products and services. The European Union also encourages states to create all the necessary conditions for the implementation of the Declaration and all initiatives to improve the effectiveness of the social role of the state in the context of digitalization. The main benefits that will be obtained as a result of the implementation of measures related to the digitalization of the social sphere are, in particular: implementation of digital tools and platforms to enhance transparency, efficiency, and accessibility in public administration (E-Governance); utilizing IoT (Internet of Things) and other technologies to improve urban living, manage resources efficiently, and ensure sustainable development (Smart Cities); leveraging technology to streamline welfare distribution, ensuring it reaches those in need more effectively and with less bureaucracy (Digital Welfare Systems); exploring Universal Basic Income (UBI) as a response to job displacement caused by automation and AI; addressing the challenges and opportunities presented by the gig economy, including worker rights and benefits, expanding access to healthcare through telemedicine and digital health services; implementing robust data privacy laws to protect citizens in a digital world; ensuring state and individual security against cyber threats; ensuring that marginalized groups are not left behind in the digital transformation etc.

The presented overview of the EU's initiatives and steps to promote a social digital society, which is the basis of a digital welfare state, demonstrates the

<sup>52</sup> Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions Establishing a European Declaration on Digital rights and principles for the Digital Decade. Brussels, 26.01.2022 COM(2022) 27 final. Available at: <https://eur-lex.europa.eu/legal-content/EN/TEXT/?uri=CELEX:52019DC0640>

high level of activity of the Union in this area. At the same time, it should be emphasized that the EU is trying to respond extremely quickly to the development of technologies and their implementation through the adoption of relevant secondary legislation.

#### **4. Some aspects of legal regulation of the implementation of the digital welfare/social state model in Ukraine**

Legal regulation of the social sphere in Ukraine is currently carried out by more than 170 laws of Ukraine, 400 resolutions of the Cabinet of Ministers, 1100 departmental and interdepartmental orders on social protection of various social groups<sup>53</sup>. Most of these normative acts in some way address the issue of digitalization of information or data related to social services. This information is accumulated, used and changed, for example, in a number of information systems, including: The Unified Information System of the Social Sphere<sup>54</sup>; the Unified State Web Portal of Electronic Services (Diia); the Register of Insured Persons of the Pension Fund, the State Register of Compulsory State Social Insurance; the Unified Information Database of the Social Protection Fund for Persons with Disabilities on the registration of employers and data on employment and employment of persons with disabilities; the State Register of Property Facilities for Children's Recreation and Leisure and other registers, platforms and databases. In 2022-2023, the automated humanitarian aid registration system and the Register of Anti-Terrorist Operation Volunteers were added to these systems, etc.<sup>55</sup>.

It is obvious that digitalisation can simplify and speed up the work with numerous registers and databases, reduce bureaucracy and corruption, and thus optimise the process of obtaining a wide range of social services for individuals. As pointed out by A. Zhavoronok and I. Lopashchuk, "global accumulation and systematisation of citizen data, followed by their processing based on artificial

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<sup>53</sup> In Ukraine, as in most European countries, the key objective of social support is to reduce poverty and minimize social inequality (prevention of discrimination, equal access to social benefits and privileges) for people who, for one reason or another, are unable to meet the minimum level of basic needs on their own.

<sup>54</sup> Regulations on the Unified Social Sphere Information System, approved by the Cabinet of Ministers of Ukraine on April 14, 2021, no. 404 [online]. Available at: <https://zakon.rada.gov.ua/laws/show/404-2021-%D0%BF#Text>

<sup>55</sup> The Unified Social Sector Information System: What will change with its implementation? [online]. Available at: <https://socsprava.com.ua/praktyka/yedyna-informaczijna-sistema-soczi-alnoyi-sfery-shho-zminytsya-z-yyi-vprovadzhenniam/>

intelligence, remote assignment of payments, guarantees, benefits using available digital channels online, without personal visits to territorial social support bodies, as well as minimisation of subjectivity in decision-making and approaches to citizens – all this determines the main organisational and economic values of social sector digitalisation, designed to optimise social support”<sup>56</sup>.

In Ukraine, the sphere of digital social support services is at an early stage of development<sup>57</sup>. But at the same time, it can be argued that today Ukraine’s social support system is undergoing a revolutionary information and digital reform, which is one of the steps towards the development of a digital welfare/social state.

Thus, in October 2020, the Cabinet of Ministers of Ukraine approved the Strategy for the Digital Transformation of the Social Sphere<sup>58</sup>, which defines the directions and objectives of comprehensive digital transformation of all components of the social protection system based on common approaches, standards and technologies. The goal of the Strategy is to ensure European standards for the functioning of social protection institutions, the provision of social services, the financial stability of the social sector, increase its transparency and optimise its administrative costs, and its objectives are to increase the effectiveness of social protection of citizens; improve the system of management of financial resources of the social sector; automate the system of management and control in the social sector; technological development of information resources of the social sphere through the use of innovative technologies.

The information system on the basis of which the goals and objectives of the Strategy will be implemented should be the Unified Information System of the Social Sphere. Within this system, the follows should be created:

- The Unified Social Register (USR), which will include information on recipients of all types of social assistance with mandatory indication of their status, right to receive a particular type of social support, as well as information on the exercise of such right or use of it;
- a register of social protection institutions providing certain types of social support;
- a network of universal service centres in the social sphere, introduction of unified standards of service for citizens on the provision of any type of social support on the principle of ‘one-stop shop’;

<sup>56</sup> ZHAVORONOK, A., LOPASHCHUK, I. Digitalisation of the social sphere in the context of ensuring the economic security of the state. *Economic space*. 2024, issue 189, p. 253–258. Available at: <https://doi.org/10.32782/2224-6282/189-45>

<sup>57</sup> Ibid., p. 255.

<sup>58</sup> Strategy for the Digital Transformation of the Social Sphere, approved by the Cabinet of Ministers of Ukraine on October 28, 2020, No. 1353-r [online]. Available at: <https://zakon.rada.gov.ua/la ws/show/1353-2020-%D1%80#Text>

- a subsystem for accumulating, storing, recording, searching and using data on orphans, children deprived of parental care, children in difficult life circumstances, candidates for adoption, guardians, custodians, foster parents, foster parents and adoptive parents, guardians, custodians, foster parents, foster parents;
- a unified electronic document in the social sphere with broad functionality, which, in particular, will record the information necessary to identify a person for receiving specific types of social assistance and access to information from the Unified Social Register.
- ensuring that citizens can be served regardless of their registered place of residence;
- creation of the Unified Social Web Portal on the Unified State Web Portal of Electronic Services ‘Portal Diia’ as a subsystem of the Unified Information System of the Social Sphere to provide remote access of citizens to all services provided by social protection institutions, in particular, persons with visual, hearing, musculoskeletal, speaking and intellectual disorders, as well as various combinations of disorders;
- introducing the technology of electronic informing of citizens on social support through mobile communication, e-mail, the mobile application of the Unified State Web Portal of Electronic Services ‘Portal Diia’, etc.

Improvement of the system of managing financial resources of the social sphere, in turn, included the following <sup>59</sup>:

- establishment of the subsystems ‘Electronic Budget’, which will ensure forecasting, planning, distribution, accounting, reporting, analysis and control of social protection expenditures in general, by their individual types and spending units; ‘Social Treasury’, which will automate the calculation, accounting and payment of all types of social support as social benefits, ensuring, in particular, direct centralised crediting of the relevant amounts to the recipients’ bank accounts; and verification of recipients of social payments and other types of social assistance and prevention of their unjustified appointment, abuse, and illegal appointment of any type of social support;
- development of mechanisms for information and functional interaction between social protection institutions and law enforcement agencies to identify and prevent misuse of funds allocated for social support;
- ensuring the integration of the Unified Social Sector Information System with the information systems of the Ministry of Justice, the Ministry of Finance, the Ministry of Internal Affairs, the Ministry of Education and Science, the Ministry of Health, the Ministry of Veterans, the Ministry of Regional

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<sup>59</sup> Ibid.

Development, the Ministry of Economy, the State Tax Service, the State Customs Service, the Treasury, the National Bank and other executive authorities.

It was anticipated that the implementation indicators of the Strategy, along with their projected values outlined in the Annex to the Strategy, would be fully achieved by 2022–2023. However, the Russian aggression against Ukraine hindered the realization of these goals, although it did not remove the issue of digitalising the social sector from the agenda—in fact, it made it even more urgent. This is especially due to the fact that since February 24, 2022, over 10 million Ukrainians have relocated, either abroad or within Ukraine, with around 5 million registered as internally displaced persons.

It has already been noted that, like in other countries, digitalisation on a nationwide scale in Ukraine is needed to simplify the access to social services, benefits and privileges, make them more convenient and transparent, and enable them to be applied for online. In these circumstances, the use of the Unified Social Sector Information System (USSIS), as envisaged by the Strategy for Digital Transformation of the Social Sector, ensures a transition from a district-oriented to an extraterritorial principle, which has become a crucial necessity in the context of ongoing hostilities and the temporary occupation of part of the state's territory.<sup>60</sup>

Currently, the first components of the system have been developed, including the Unified Social Register (USR), which is the main element for the functioning of the USSIS. The USR is based on the Pension Fund's Register of Insured Persons and contains up-to-date data on individuals, including information on their documents and insurance payments. Since the USR interacts with other registers, identity verification will be automatic and only a passport will be required. In the future, the integration of the register with the Diia portal will allow for online applications for social assistance<sup>61</sup>.

Despite the Russian aggression, the Ukrainian authorities managed to ensure the interaction between the USSIS and Diia. Thus, in 2022, the possibility of applying for assistance for internally displaced persons through the Diia application

<sup>60</sup> Digitalization of welfare sphere will insure more qualified interaction of citizens and – Kostyantin Koshelenko visited Rivne region [online]. Available at: <https://www.kmu.gov.ua/news/cifrovizaciya-socialnoyi-sferi-zabezpechit-bilsh-yakisnu-vzayemodiyu-derzhavi-ta-gromadyan-ko-styantyn-koshelenko-vidvidav-rivnenshchynu>

<sup>61</sup> Currently, more than 100 different types of social services are provided in Ukraine, with UAH 800 billion allocated from the budget each year. Institutions receive up to 7 million applications in paper form. With the introduction of the USSIS, Ukrainians will no longer need to apply to several government agencies to collect all the necessary certificates to receive social services.

Resource: *Without additional certificates and queues – how the social services sector will change with the introduction of the Unified Social Information System* [online]. Available at: <https://thedigital.gov.ua/news/bez-dodatkovikh-dovidok-ta-cherh-yak-zminitsya-sfera-sotsialnih-poslug-z-vprovadzhenniam-edinoi-informatsiynoi-sistemi-sotsialnoi-sferi>

was implemented quite quickly. This led to a real reduction in queues at regional departments of social protection and administrative service centres (ASCs). Internally displaced persons were also given the opportunity to apply for a change of place of residence (registration) or deregistration through Diia.

An important direction in the development of the welfare state with the help of digital technologies is also the gradual introduction of the adoption service through the Diia portal. In this case, the USSIS acts as a data transfer between the Diia portal<sup>62</sup> and the Unified Organisational, Technical and Information Analytical System<sup>63</sup> “Children”.<sup>64</sup>

Among the most important areas related to social issues within the framework of the USSIS are the following: social support for IDPs (provided to more than 2 million people); provision of social services on the Diia portal – submission of applications for adoption of children; receiving payments by citizens from international organizations (with the help of the Unified Social Register, which is the heart of the USSIS, data was verified and lists for payments were created for more than 4 million people who applied through the eDopomoga (eHelp) system; confirmation of the status of people with disabilities (provision of verified information on the presence of disability from the information systems of the Ministry of Social Policy and the Pension Fund when applying for social assistance, crossing the border and in other cases (in total, these information platforms include more than 2.5 million people with disabilities); document sharing (automatic receiving of documents stored in the state’s information systems and necessary for the provision of various types of social support using the Diia portal); register of social service providers (a single national centralized database of legal entities and individuals entitled to provide social services to citizens (according to the Ministry of Social Policy of Ukraine)<sup>65</sup>.

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<sup>62</sup> The Unified Information and Analytical System ‘Children’ was modernised, in particular, a web version of the system was created, so that employees of children’s services can conveniently and quickly process applications from citizens from any device that is authorised in the system.

<sup>63</sup> This system is designed to accumulate, store, record, search and use data on children left without parental care, orphans, children deprived of parental care and persons from among them, children who may be adopted, children in difficult life circumstances, including children affected by hostilities and armed conflicts, who are temporarily displaced (evacuated) on the territory of Ukraine where military (combat) operations are not taking place or outside Ukraine, candidates for adoption, potential guardians, custodians, foster parents, foster parents, and adoptive parents, guardians, custodians, foster parents, foster parents, foster carers and institutions.

<sup>64</sup> On maintaining a database of orphans, children deprived of parental care and families of potential adoptive parents, guardians, trustees, foster parents, foster carers: Order of the Ministry of Social Policy of Ukraine of 28.12.2015, No. 1256 [online]. Available at: <https://zakon.rada.gov.ua/laws/show/z0380-16#Text>

<sup>65</sup> The Unified Social Information System is now open to all government agencies [online]. Available at: <https://ukurier.gov.ua/uk/news/yedina-informacijna-sistema-socialnoyi-sferi-vidte/>

Despite the fact that Ukraine is actively working on the digitalization of the social sphere, unfortunately, there is a significant gap between the level of government investment and the needs of individuals<sup>66</sup>.

The Recovery Plan for Ukraine, presented at the Lugano Conference (2022), stipulates that the National Program for the Digitalization of Ukraine will allocate funds totaling USD 100 million for projects that provide for 100% digitalization of public services in Ukraine<sup>67</sup>. It is unlikely that these funds will be enough to implement this and other equally ambitious tasks<sup>68</sup>. In addition to the investment attraction, issues related to patents, licenses, computer programs, copyrights, etc. need to be resolved. Due to the rather high average age of Ukraine's population<sup>69</sup>, increased staff turnover as a result of Russian aggression, and efforts to retrain the necessary digital skills, the state will have to face significant efforts to recover from the loss of skills.

It should also be noted that Ukraine, like some European states, is rather poorly prepared for digital transformation: its image as a digital employer is not very high, and the practice of attracting talented personnel lags far behind the private sector. To improve this situation, it is necessary <sup>70</sup> to simplify the recruitment process to reduce competition with the private sector; to attract talented young professionals in the IT sphere; to facilitate access to digital profiles

<sup>66</sup> FEDULOVA, L., EMELIANENKO, L. Investing in the digital economy: global trends and practice of Ukraine. *Economy and State*. 2020, no. 4, p. 6–13.

<sup>67</sup> The National Program for the Digitalization of Ukraine envisages \$100 million in investments. 04.07.2022. Interfax Ukraine. Ukrainian News agency, 04.07.2022 [online]. Available at: <https://interfax.com.ua/news/telecom/843667.html>

<sup>68</sup> Minister of Digital Transformation M. Fedorov noted that it is planned to create a backup infrastructure for all 25 basic state registries, a reliable backup data storage, cloud technologies and a secure data center. In addition, the following projects are envisaged: "Cyberfront", which aims to create a comprehensive cyber defense system for Europe and the world, effective approaches to countering modern cyber challenges, development of new models of cyber defense; creation of an electronic judicial system and an electronic notary; electronic elections of judges and members of the High Council of Justice (in the future); e-Customs (electronic checkpoints – scanner, electronic queue, automatic customs clearance of consumer goods, digital risk management and customer service system); eHealth (implementation of the eHealth system, telemedicine, innovative remote monitoring tools); Cashless (implementation of digital cash e-hryvnia, cashless infrastructure); E-Education. Resource: The National Program for the Digitalization of Ukraine envisages \$100 million in investments. 04.07.2022. Interfax Ukraine. Ukrainian News Agency, 04.07.2022 [online]. Available at: <https://interfax.com.ua/news/telecom/843667.html>

<sup>69</sup> The average age of the population of Ukraine before the Russian aggression was 41.3 years (men – 38.5, women – 43.8). Today, it is difficult to imagine what it will be like in the postwar period, given the massive migration of the population abroad and the deaths of men. The Ministry of Digital Transformation plans to digitalize the older generation by providing smartphones to every Ukrainian aged 60 and older and teaching them how to use them.

<sup>70</sup> Les ressources humaines de l'Etat dans le numérique [online]. Available at: <https://www.economie.gouv.fr/cge/filiere-numerique-Etat>

in the state; to allow the state to offer decent working conditions to its agents working in the field, etc.

In conclusion, it should be noted that the level of digitalization of social services in Ukraine is characterized as quite high and meets many of the standards established in the European Union, which gives reason to believe that in this area Ukraine is approaching the model of a digital welfare state and can become a deserving EU member state.

## **5. Conclusion**

The modern concept of the “digital welfare state” is revealed through the existence of a new regime of public services and social security, which is closely linked to digital data and technologies, which in turn provide new forms of control and support. At the same time, the digital welfare state is not a new type of state, but a qualitative characteristic of the welfare state in the twenty-first century. Through digitalization, the welfare state is seeking to protect its citizens from new social risks, make them economically motivated, competitive, flexible, active, and responsible. Despite the many advantages of the process and results of digitalization in the social sphere, one should keep in mind the risks and disadvantages that exist in the system of social service delivery through the use of digital technologies. Human-centeredness as the main principle of the welfare state remains relevant for the digital welfare state as well.

The European standards of social policy in the context of digitalisation are now the main reference point for understanding the content of the welfare state at the global level. The rapid development of technology encourages the European Union to actively implement high standards of individual protection at both the national and supranational levels.

Ukraine, which is in the process of rapid digital transformation of almost all areas of social relations, including the welfare sector, is demonstrating some success in implementing the concept of a digital welfare state. Despite Russia’s aggression against Ukraine, which to some extent delayed a number of reforms, the state managed to adopt relevant legislation and create appropriate tools to improve the efficiency of social services and ensure social protection of individuals. One of the factors that make the need to introduce new technologies in the social sphere more urgent for Ukraine is the country’s European integration aspirations.

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