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Implementation of digital public administration tools in the social protection system of Ukraine

Abstract: The article examines current issues in Ukraine's social protection system in the context of ensuring the state's social security. Key vulnerable population categories are identified, namely veterans of the Anti-Terrorist Operation, internally displaced persons, and elderly citizens living alone, whose social protection requires systemic improvement. The main shortcomings of the existing social services delivery model are analyzed: excessive bureaucratization, the absence of unified electronic registries of assistance recipients, duplication of payments, and limited accessibility of services in rural areas. The role of digital transformation as an effective public administration mechanism in the field of social protection is substantiated. Directions for implementing digital tools are proposed: electronic registries, inter-agency data exchange, and remote delivery of social services. The conclusion is drawn on the necessity of forming a coherent state policy of digitalization of the social sphere as a condition for strengthening Ukraine's social security.

Keywords: digital transformation, social protection, social security, public administration, electronic registries, internally displaced persons, ATO veterans, public administration mechanisms, social services, e-governance.

Problem Statement. The existing model of social protection in Ukraine, based on paper-based document flow and fragmented departmental registries, fails to ensure timely and targeted protection of ATO veterans, internally displaced persons, and elderly citizens living alone. This highlights the need to examine digital transformation as a key public administration mechanism in the social sphere.

Review of Recent Research and Publications. The theoretical foundations of e-governance in the context of public administration are addressed in the works of A. I. Semenchenko and V. P. Zhuravlov, who examine the informatization of public administration as a systemic process. The strategic directions of Ukraine's digital development are outlined in the "Digital Agenda of Ukraine – 2020", which identifies the social sphere as a priority area for transformation. International experience in the digitalization of public services is summarized in the European Commission eGovernment Benchmark 2017 and UN E-Government Survey 2018 reports, which record Ukraine's significant lag behind European indicators. Despite existing contributions, the issue of digital transformation of the social protection system as an instrument of social security remains insufficiently studied.

The purpose of the article is to substantiate digital transformation of the social protection system as a public administration mechanism aimed at ensuring the social security of Ukraine in the context of new challenges.

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The social security of the state is an integral component of the national security system and reflects the state's capacity to protect citizens from social risks, maintain an adequate level of welfare, and preserve social stability in society. In the scientific literature on public administration, social security is interpreted as a condition in which the state effectively fulfills its social functions, ensuring the protection of citizens from poverty, social exclusion, and other risks that threaten human dignity and social cohesion. In the context of the armed conflict in eastern Ukraine and the mass internal displacement of the population, social security acquired critical importance, as the state simultaneously faced several challenges that sharply increased the burden on the social protection system [2]. Among the key vulnerable groups requiring priority attention are: veterans of the Anti-Terrorist Operation (ATO), internally displaced persons (IDPs), and elderly citizens living alone. Each of these categories presents distinct administrative challenges that the existing institutional mechanisms proved structurally ill-equipped to address effectively.

ATO veterans as a new category of benefit recipients in 2014–2018 became a genuine test for the social protection system. Prior to 2014, Ukrainian legislation contained no developed regulatory framework for the social protection of combat veterans in conditions of an active armed conflict, as the country had not faced such a situation in the post-Soviet period. As a result, the normative and institutional response was necessarily improvised, with legislative acts adopted in rapid succession without adequate coordination or systematic planning. As of 2018, the number of ATO participants requiring various forms of social support exceeded 300,000 people, a figure that continued to grow with each rotation of military personnel. The main problems were: the absence of a unified veterans registry, duplication of payments across different agencies, a complex bureaucratic procedure for confirming ATO participant status, and an insufficient level of medical and psychological rehabilitation [6]. The administrative burden placed on veterans seeking to confirm their entitlements was particularly acute: individuals who had returned from active service were frequently required to collect extensive documentation from multiple agencies, involving repeated personal visits and prolonged waiting periods. The digitalization of veterans' records and benefits was considered a key instrument for addressing these problems, however its practical implementation remained at an early stage, constrained by both technological limitations and institutional inertia within the relevant agencies.

Internally displaced persons became another large-scale challenge for the social protection system. According to the Ministry of Social Policy of Ukraine, by early 2018 more than 1.5 million IDPs were registered in the country, representing one of the largest internal displacement situations in Europe. The main problems in the area of their social protection were: difficulties with identity verification and confirmation of entitlement to payments, risks of benefit duplication — where a person received payments simultaneously in both occupied and government-controlled territories of Ukraine — limited access to social services at relocation destinations, and the absence of effective inter-agency data exchange between social protection authorities, registration bodies, and local governments [2]. The scale of the verification problem was compounded by the fact that the existing administrative infrastructure had no precedent for managing cross-territorial benefit claims, and the relevant databases were maintained by separate agencies with no established protocols for real-time information sharing. The introduction of an electronic IDP registry partially resolved the accounting problem, however the issues of verification and targeting of payments required further improvement through digital tools, particularly given the dynamic nature of population movements in the conflict-affected regions.

Elderly citizens living alone and other traditionally vulnerable population categories faced chronic systemic problems that predated the conflict but were significantly exacerbated by it: limited accessibility of social services in rural areas, difficulties in processing documents for elderly and low-mobility individuals, insufficient awareness of available forms of social support, and the absence of remote forms of social service delivery. In 2018, the majority of interactions between citizens and social protection authorities still took place in the format of personal visits with paper documents, which created significant barriers for low-mobility citizens [4]. For individuals in remote rural communities, accessing social services could require travelling considerable distances to the nearest administrative center, a burden that proved prohibitive for many elderly and disabled persons. The absence of any digital alternative thus functioned not merely as an inconvenience but as a de facto denial of access to legally guaranteed social entitlements.

A systemic analysis of the state of social protection in Ukraine in 2018 reveals a number of structural shortcomings that reduced its effectiveness. First, departmental fragmentation: social protection functions were distributed among the Ministry of Social Policy, the Pension Fund, the Social Insurance Fund, local authorities, and other structures, making it impossible to obtain a comprehensive picture of an individual citizen's social situation. This fragmentation meant that no single agency possessed full information about the totality of benefits received by a given individual, creating both gaps in protection and opportunities for unintended

duplication. Second, the absence of a unified database of social assistance recipients led to duplication of payments and the inability to conduct a comprehensive check of targeting. Third, paper-based document flow increased application processing times, created conditions for corruption, and prevented timely responses to changes in citizens' social circumstances [5]. Fourth, low digital literacy both among the population and among some social service employees hindered the introduction of any technological innovations, creating a human capital constraint that operated alongside the more frequently discussed technological and financial barriers.

Digital transformation as a public administration mechanism implies not merely the automation of existing processes, but their fundamental restructuring on the basis of digital technologies with the aim of improving the quality and accessibility of public services [1]. It is important to emphasize that digital transformation in the public sector differs qualitatively from simple digitization or computerization: while the latter involves converting existing paper-based processes into electronic formats, the former entails a comprehensive rethinking of service delivery logic, organizational structures, and citizen-state interactions. In the context of social protection, digital transformation can be implemented across several key directions, each addressing specific identified shortcomings of the existing system.

The first direction is the creation of a unified electronic registry of social payment and service recipients. Such a registry would eliminate the duplication of payments, ensure the targeting of assistance, and enable prompt verification of a citizen's entitlement to a particular form of support. Critically, a unified registry would shift the burden of information gathering from the citizen to the state: rather than requiring individuals to repeatedly present the same documents to multiple agencies, the system would automatically consolidate relevant data from existing administrative sources. The experience of EU countries demonstrates that the introduction of unified social registries makes it possible to reduce non-targeted payments by 15–25%, while simultaneously improving coverage of genuinely eligible recipients [7]. The technical prerequisites for such a registry existed in Ukraine by 2018 in the form of the State Register of Individuals and various sectoral databases, however their integration remained an unrealized administrative objective.

The second important direction is ensuring effective inter-agency electronic data exchange. Given the departmental fragmentation of the social protection system, only well-established data exchange between social protection authorities, the State Register of Individuals, the Pension Fund, residence registration bodies, and medical institutions can provide a comprehensive picture of a citizen's social situation. The Strategy for the Development of the Information Society in Ukraine identifies inter-agency integration as one of the priorities for e-governance

development [2]. The practical barriers to achieving this integration are not primarily technological but organizational and legal: agencies accustomed to operating as autonomous information silos resist the transparency and accountability that come with data sharing, while the legal framework for inter-agency data exchange remained insufficiently developed. As of 2018, most agencies continued to operate in a state of informational isolation that served neither administrative efficiency nor citizens' interests.

The third direction is the introduction of remote forms of social service delivery through electronic personal accounts, mobile applications, and administrative service centers. For ATO veterans, IDPs, and low-mobility citizens, the ability to submit an application for social assistance online, without the need for a personal visit to an institution, is critically important. Beyond mere convenience, remote service delivery represents a fundamental shift in the relationship between the citizen and the state, replacing a model premised on citizen compliance with bureaucratic requirements with one premised on state responsiveness to citizen needs. The experience of implementing electronic social services in Estonia, Denmark, and Poland demonstrates a significant increase in the coverage of the population by social services following the transition to digital interaction channels [8]. Estonia's experience is particularly instructive, as that country achieved near-universal digital service delivery within a relatively short timeframe through a combination of centralized digital infrastructure, interoperable databases, and a legal framework that accorded electronic documents full equivalence with paper ones. In Ukraine, the first steps in this direction were taken with the creation of the Government Services Portal, however its functionality in the area of social protection remained extremely limited, covering only a small fraction of the services that citizens actually needed to access.

The fourth direction of digital transformation of social protection is the use of analytical tools and Big Data processing technologies for forecasting social risks and planning the volume of social assistance. The analysis of demographic trends, employment levels, IDP movement dynamics, and other indicators in real time would enable public administration bodies to make informed decisions regarding the allocation of social protection resources and to respond preventively to the escalation of social problems [3]. Predictive analytics could, for example, identify communities at heightened risk of social distress based on combinations of economic, demographic, and conflict-related indicators, allowing resources to be pre-positioned rather than deployed reactively after problems have already materialized. The introduction of such approaches is consistent with the overall logic of Ukraine's Digital Agenda, which identifies data analysis as a key competency of modern public administration [1].

An important condition for the successful digital transformation of the social protection system is ensuring the protection of citizens' personal data. The digitalization of social registries and the transition to electronic document flow are associated with the concentration of significant volumes of sensitive personal information, which requires the implementation of robust cybersecurity mechanisms and clear legal frameworks governing data access and use. International experience demonstrates that citizens' trust in electronic social services is directly dependent on guarantees of personal data protection [8]. Where citizens lack confidence that their sensitive personal information will be handled securely and used only for legitimate purposes, uptake of digital services tends to be low even when the technical infrastructure is adequate. In Ukraine, it is necessary to improve the regulatory framework in the area of personal data protection in accordance with EU standards as a prerequisite for large-scale digitalization of the social sphere, both to ensure genuine protection of citizens' rights and to build the public trust necessary for successful digital service adoption.

The implementation of digital transformation of the social protection system requires appropriate organizational and human resource support. Research indicates that the main barriers to the digitalization of public administration in Ukraine are: an insufficient level of digital competency among civil servants, resistance to organizational change on the part of some social service employees, a shortage of information technology specialists in the public sector, and the absence of clearly designated persons responsible for digital transformation at the level of ministries and agencies [5]. These human and organizational factors are frequently underestimated in policy discussions that focus primarily on technological and financial aspects of digitalization, yet they consistently emerge as decisive determinants of implementation success or failure in comparative international experience. Overcoming these barriers requires systematic efforts to enhance the digital literacy of civil servants and to develop appropriate educational programs within the system of training specialists in public administration [4]. It also requires changes in organizational culture that reward innovation and citizen-centered service delivery rather than procedural compliance and risk avoidance.

Thus, digital transformation of the social protection system is not merely a technological task, but above all a public administration challenge requiring a comprehensive approach: a coherent regulatory framework, inter-agency coordination, institutional capacity, and citizen engagement in the use of digital

services. The interconnected nature of these requirements means that partial reforms — for example, developing technical infrastructure without addressing organizational culture, or improving digital literacy without reforming legal frameworks — are unlikely to produce the systemic improvements that Ukraine's social protection system urgently requires. In the context of 2018, when Ukraine was only beginning to shape its digital agenda, the priority task is the development of a Concept for the Digital Transformation of the Social Sphere as a separate strategic document that would define the goals, mechanisms, and performance indicators of the digitalization of the social protection system in the context of ensuring the social security of the state.

Conclusions. The conducted research allows the following conclusions to be drawn. First, Ukraine's social protection system in 2018 faced unprecedented challenges associated with the armed conflict in eastern Ukraine, mass internal displacement of the population, and the emergence of new categories of socially vulnerable citizens — ATO veterans and IDPs. Second, the existing social protection model, based on paper-based document flow and departmental fragmentation, is structurally incapable of ensuring targeted and effective social protection in the face of such large-scale challenges. Third, digital transformation of the social protection system is a key public administration mechanism that makes it possible to resolve the problem of payment duplication, improve the targeting of assistance, ensure the accessibility of social services for all population categories, and strengthen the social security of the state. The implementation of digital transformation requires the adoption of an appropriate strategic document, inter-agency coordination, and investment in the digital competency of civil servants.

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