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3.7. Digital Transformation of Social Projects in Ukraine: How to Overcome Wartime Risks

Analyzed: current conditions caused by Russia's attack on Ukraine in the context of overcoming the challenges of digital transformation by territorial communities during the implementation of social projects. Researched: risks of managing social projects in the context of digital transformation of communities during martial law, and approaches and ways to overcome them. Keywords: social project, digital transformation, territorial community, risk, risk management, digitalization, digital divide, infrastructure, local democracy tool, strategy.

Introduction. Given the current conditions caused by Russia's attack on Ukraine, territorial communities are focused on overcoming a number of challenges. The digital transformation of social projects, as well as the sphere of social protection, is subject to significant risks. To achieve stability and prospects in wartime, one should focus on flexible adaptation, prioritization of the most important social needs, use of existing and innovative social policy instruments, and effective project management at all stages. In times of war, rapid response to urgent needs, ensuring basic social functions, as well as attracting resources and collaborating with partners to support vulnerable populations are key.

Main part. Managing social projects within the context of digital community transformation involves utilizing modern digital technologies and tools to enhance the efficiency, transparency, and scalability of social initiatives. This approach enables communities to address existing problems more effectively, engage residents in active participation, and achieve sustainable results. *The following key aspects of managing social projects in the context of digital transformation can be outlined:*

- Digital platforms for communication and collaboration. The use of social networks, online forums, and special platforms for interaction allows you to attract a wider range of participants, establish effective feedback, and increase the transparency of project implementation.
- Digitalization of social services. The transfer of state and social services to an electronic format, as implemented in Ukraine through the "Diya" application, simplifies citizens' access to necessary assistance and support, minimizing bureaucratic obstacles.
- Use of Big Data and analytics. Data collection and analysis allow us to more accurately identify community needs, assess project effectiveness, and make informed management decisions. This helps not only to improve the effectiveness of current initiatives, but also to predict future needs.
- The introduction of e-democracy tools, such as electronic petitions, surveys, and public discussions, promotes the active involvement of residents in decision-making processes and enhances their participation in community development.
- Developing digital literacy. As digital tools become an integral part of social projects, it is important to ensure that residents, especially vulnerable groups, are trained in the use of new technologies. This helps to overcome the "digital divide" and involves all community members.
- Process automation. Using project management software and automating routine tasks allows you to optimize resource allocation, track progress, and respond to risks in a timely manner.
- Introduction of new technologies. The use of innovations such as artificial intelligence (chatbots for support), cloud technologies (data storage), and other modern solutions can improve the quality of services and expand the possibilities of social initiatives.

The advantages of digitalization in social projects include:

- Increased efficiency: process automation, resource optimization, and rapid response to needs [4, p. 13].

• Transparency and accountability: easier access to information and monitoring of project results.

• Community engagement: the ability to more actively involve residents in decision-making and implementation of initiatives.

• Scalability: the ability to quickly expand successful solutions to other communities and projects.

The digital transformation of communities under martial law faces unique challenges. These amplify the standard risks and threats of digitalization and require rapid, adaptive solutions. Stable management of social projects is needed despite significant progress and obvious benefits. However, there are specific threats caused by global trends and the country's internal characteristics, including the state of war. This situation complicates the implementation of social projects with risks that can greatly affect their effectiveness, transparency, and inclusiveness. Internet usage indicators have a direct, significant impact on the risks of digital transformation of communities and the stability of social project management under martial law. Digitalization at this time creates new opportunities and specific threats. These depend on the level of access and digital literacy of the population [3, p. 14].

Risks of digital transformation of communities during the management of social projects under martial law. Under martial law in Ukraine, the risks of digital transformation have become more pronounced and have taken on new, critical forms, which directly affect the population's access to and quality of vital services and information. In today's digital world, ensuring data security is an ongoing process that requires attention from individual users, organizations, and the state.

In Ukraine, elderly rural residents, low-income people, internally displaced persons, and people with disabilities are considered particularly vulnerable to the risks of digital transformation. Let's consider the main dangers of the digital transformation of communities when managing social projects under martial law. The main dangers include the digital divide, war, cyber threats, fraud and manipulation, reduced social interaction, the formation of "echo chambers", problems with technology and infrastructure, insufficient data quality, information manipulation, low digital literacy, unemployment and retraining,high financial costs, insufficient legal regulation, dependence on foreign technologies, risk of excessive control, bureaucracy. Let's outline the risks in more detail:

• Russia's war against Ukraine: massive missile and drone attacks, causing damage to energy infrastructure facilities, their physical destruction, and as a result, power outages, especially in frontline and de-occupied territories. Even where the infrastructure has survived, network overload during power outages (when everyone switches to mobile internet) or the use of outdated equipment leads to slow internet, making it impossible to access services.

• Digital divide (inequality) due to social risks: not all members of a community have equal access to digital technologies and sufficient digital literacy. This can lead to the exclusion of the elderly, low-income families, or residents of remote settlements from processes that are becoming fully digital. This deepens social inequality if access to important services or information is exclusively through digital channels, as those who do not have the necessary resources find themselves in a worse position.

• Cyber threats and data security due to personal data leakage [32, p. 53]: social projects often operate with confidential information about participants, and their digitalization increases the risk of leakage, which can have serious consequences for people's privacy and security. In addition to the above, there is increased vulnerability to cyberattacks on Ukraine's state and commercial digital systems as a constant target of an aggressor state. This poses a risk to data integrity and confidentiality, and may also cause disruptions to critical infrastructure.

• Fraud and manipulation: attackers can use digital platforms to send spam, phish, or social engineer to gain access to personal data, to spread disinformation, fraudulent schemes, and manipulate public opinion. This can include phishing attacks, where users are tricked into revealing confidential information, or the use of social media to create false news with the aim of influencing political or social processes.

• Reduced social interaction due to the replacement of face-to-face communication: excessive digitalization can reduce the amount of personal contact, which is an important element of social projects, especially those aimed at supporting the community. This can lead to social isolation and loneliness.

• Formation of "echo chambers": Interaction in digital spaces can be limited to communication with like-minded people, which hinders dialogue and the formation of a common opinion within the community. This phenomenon, known as "echo chambers" or "information bubbles" (filter bubbles), is one of the serious social threats caused by the algorithms of digital platforms. "Echo chamber" is a metaphorical designation for a situation in which a person's information, ideas, and beliefs are reinforced by the repetition of pre-existing thoughts within a closed system. Search

engines use algorithms to show a user content that they believe they will be interested in or likely to agree with. The goal is to keep the user's attention on the platform for as long as possible. As a result, the person falls into an information "bubble" where they hear only the "echo" of their own thoughts and the thoughts of like-minded people; other points of view are either ignored or presented in a negative, distorted light. By polarizing society, "echo chambers" deepen differences between different groups of people; instead of constructive dialogue, mutual misunderstanding and hostility arise. In a closed information space, there is no need to argue one's position or listen to the other side, which makes it impossible to reach a compromise or form a single opinion within a community or society. Another critical aspect of the "information bubble" is the radicalization of views: when beliefs are constantly reinforced, they can become more extreme, in which case people in the digital space lose the ability to critically evaluate information and become vulnerable to manipulation, and ultimately cause the spread of disinformation - fake news spreads inside "echo chambers",because they are not questioned by critical opponents, reducing trust in traditional media, experts, and institutions, because they are perceived as "foreign" sources of information that do not correspond to the "correct" picture of the world.

- Problems with technology and infrastructure due to system instability and technological failures, slow internet, or incorrect software operation can make it impossible to access services and undermine trust in the project. Reliance on digital technologies makes government and social services vulnerable to technical failures, which can paralyze the work of government institutions and leave citizens without access to vital services. Despite general internet availability, in some regions, especially rural areas and frontline areas, communication quality remains low or non-existent, making access to digital services difficult.
- Insufficient data quality: Collecting big data for analysis can be accompanied by errors or biases, which can lead to ineffective or unfair decisions.
- Information risks due to information manipulation: digital platforms can be used to spread disinformation or manipulate public opinion regarding social initiatives, spreading propaganda that poses a threat to national security and public harmony.
- Low digital literacy: users’ lack of awareness of the dangers of the Internet and lack of critical thinking make them more vulnerable to information attacks. Low digital literacy turns the lack of skills into another form of inequality, depriving people of the opportunities that digitalization offers.
- Bot farms and trolling: the use of networks of automated accounts (bots) or paid users (trolls) to create the illusion of mass support for a particular idea, candidate, or condemnation of an opponent.
- Deepfake technologies: the use of artificial intelligence to create realistic, but completely fabricated audio or video recordings depicting famous people (politicians, military leaders) allegedly making certain statements.
- Structural unemployment and retraining: the growth of automation and the introduction of new technologies can lead to job losses in certain industries or make it more difficult to find employment.
- Structural unemployment arises not from a general lack of jobs, but from a mismatch between workers' skills and the demands of the new, digitalized labor market. In addition, workers with low skills or those working in traditional industries are more likely to lose their jobs, while highly skilled professionals in IT and related fields are in high demand. Many modern jobs require basic digital skills, and their lack becomes a barrier to career growth or job search.
- High financial costs: implementing and supporting digital technologies requires significant investment, which is a challenge for an economy at war.
- Legal regulation: legislation does not always keep up with the pace of digitalization, which creates gaps in the regulation of data protection, e-commerce, and intellectual property.
- Dependence on foreign technologies: The use of foreign digital solutions can create dependence on external partners and have risks related to cybersecurity and sovereignty.
- Risk of excessive control: the collection and use of data on citizens can have privacy risks and potentially increase state control over society if appropriate safeguards are not put in place.
- Bureaucracy: There is a risk that digitalization will not lead to a true transformation, but only digitize outdated bureaucratic processes. "Paper" bureaucracy persists: despite the introduction of electronic systems, many institutions continue to require paper copies of electronic documents or "live" signatures, which negates the benefits of digitalization.
- Staff training: Insufficient qualifications of civil servants can become an obstacle to the effective use of new technologies.

• The illusion of communication: social networks, instant messengers, and online games are becoming the main platforms for communication. Although they support communication at a distance, they cannot completely replace the depth of emotional contact that occurs during a personal meeting (body language, facial expressions, intonations). Having a large number of "friends" on social media or constant messaging creates a sense of social activity, but it is often a superficial connection that does not provide adequate emotional support.

• Gadget addiction: Excessive use of smartphones and other devices can distract people even when they are together. The phenomenon of people in the same room ignoring each other while immersed in their phones is called phubbing.

• Impact on mental health: Low levels of social interaction and feelings of loneliness are associated with an increased risk of developing depression, anxiety, and other mental health problems.

• Loss of face-to-face communication skills: Children and adolescents growing up in an era dominated by digital communications may have difficulty developing empathy, conflict resolution, and other important social skills.

• Business relocation: Many businesses have relocated or closed, changing the structure of regional labor markets due to the war.

• Need for reconstruction: at the same time, there is a great demand for new professions related to demining, construction, and infrastructure reconstruction, which also require modern technological skills.

• Complexity of digital procedures: Digital services can be designed in a way that replicates the complexity and ambiguity of old paper-based procedures. Instead of simplifying the process, they simply transfer it to an online format, which creates confusion for users.

• Inconsistency of registers and systems: bureaucratic disunity between different departments leads to the fact that state registers do not exchange data automatically. Citizens are forced to independently collect certificates from different bodies.

For the successful implementation of social projects under martial law in Ukraine, given the risks of digital transformation of communities, the following steps can be outlined to overcome them.

Strategies for overcoming the risks of digital transformation in the conditions of martial law in Ukraine for the successful implementation of social projects. Effective management of social projects in Ukraine, especially given today's conditions, requires a comprehensive approach to overcoming the consequences of war. The situation in Ukraine is extremely dynamic due to constant shelling, population migration, and the destruction of infrastructure. Full official data is not regularly updated in open sources, so it is difficult to find accurate, up-to-date, and publicly available figures that reflect the current percentage gap in access to the Internet or digital services between all regions of Ukraine under martial law.

Massive russian attacks have severely damaged the country's internet infrastructure and power grid. As a result, Ukrainians, especially in frontline and de-occupied territories, are facing a lack of or unstable access to the internet and mobile communications. For example, in some occupied regions, the population had no access to the Internet at all during the entire occupation. The gap in Internet access between different regions has widened significantly.

While the networks in the western and central regions were mostly stable (with the exception of periodic power outages), the situation in the eastern and southern regions, which suffered the most damage, is critical. Millions of Ukrainians were forced to leave their homes. Many of them have lost not only their homes, but also access to their usual means of communication and technology. Although they have moved to safer regions, problems with the availability of devices (computers, smartphones) and skills in using digital services remain relevant for many. Despite the fact that the state is actively developing online services through the "Diya" portal and application (they are used by over 19 million Ukrainians), people without stable internet or the necessary equipment cannot fully use these services, which makes it difficult to receive social assistance, compensation for damaged property, or access to education. Even in prosperous regions, during blackouts, internet access can disappear for users who do not have backup power or the appropriate technology. The deployment of thousands of "Points of Invincibility" with backup power has become direct evidence of the need to provide access to communications where the main infrastructure is not working.

So, the digital divide in Ukraine during the war is, first of all, a gap between regions with active hostilities and the rest of the country, exacerbated by the nationwide problem of energy security.

The assessment of the digital divide between regions under martial law is based on various indicators, in particular the Digital Transformation Index of Regions (DTI), published by the Ministry of Digital Transformation of Ukraine.

The national average Digital Transformation Index for Ukraine's regions in 2024 was 0.497 points (with a maximum possible score of 1.0). This indicates a moderate level of digital development in the country as a whole. Open data across the country illustrates a large gap: leading regions have indicators that are 3-5 times higher than those of

regions affected by occupation and active hostilities.

We can analyze the above general indicators of Internet use in Ukraine, according to a report published by the international research company DataReportal in March 2025 [48, p. 1], the number of Internet users in Ukraine at the beginning of 2025 reached 31.5 million, and the connection level was 82.4%, namely:

- Social networks: the number of social network users in January 2025 was 21.6 million people, which corresponds to 56.4% of the population.
- The most popular platforms are: YouTube (21.6 million), TikTok (17.0 million), Facebook (13.9 million), and Instagram (12.0 million).
- Mobile Internet: At the beginning of 2025, there were 56.4 million active mobile connections in the country, and 94.1% of them supported 3G, 4G, or 5G technologies.
- Internet speed: The average download speed of mobile Internet increased by 25.8%, and fixed by 13.7%.
- Mobile devices: 67% of mobile Internet users use Android-based devices, while 32% iOS.

The data presented were collected as part of a study covering various aspects of the digital environment in Ukraine and indicate Ukraine's significant progress in digitalization, but also highlight the need for further work to bridge the digital divide, especially among the older population and in rural areas,because some older people do not see an urgent need to use digital technologies, considering them uninteresting or useless for themselves given the stress and financial difficulties.

The Ministry of Digital Transformation of Ukraine, in cooperation with international partners, has developed the Digital Transformation Index of Territorial Communities, which is used to monitor and assess the level of digitalization in communities, as well as to further support and develop digital initiatives on the ground.

The Digital Transformation Index of Territorial Communities is a tool that allows communities and governments to assess the level of digitalization on the ground across a number of indicators: digital management, infrastructure, services, digital skills development, and cybersecurity. The measurement results reveal strengths and areas for improvement, and serve as a basis for forming rankings and developing further initiatives. Let's consider the experience of communities that score high on the Digital Transformation Index. Thanks to leadership and development, Dnipropetrovsk and Lviv regions demonstrate high indicators in the development of digital skills and infrastructure. Their experience shows that targeted work with human resources and investments in broadband internet are key to digital progress.

Leading communities in these regions are actively developing positions responsible for digital transformation at the local level. This contributes to a systemic approach to the implementation of innovations. The Digital Transformation Index of Territorial Communities provides indicators on digital services such as:electronic queue for kindergartens, online doctor's appointments, e-democracy, e-recovery, video surveillance systems, digital skills development, and cybersecurity.

Despite progress, the Digital Transformation Index of Territorial Communities demonstrates that territorial communities face challenges caused by the present, and, in particular, business and the digital economy generally demonstrate the lowest indicators in terms of the digital component in territorial communities. The results of the Index allow us to identify communities that need increased support from the state and international partners to accelerate digital transformation. It is worth noting that in May 2024, the Ministry of Digital Transformation recognized a number of communities from different regions that have shown significant success in digital transformation at the Digital Power Summit 2024 forum. According to the Ministry of Digital Transformation, the Lviv City Council is one of the most digitally advanced communities in Ukraine. In particular, according to the results of the Digital Transformation Index of Territorial Communities for 2024, it entered the TOP 100 leaders. Also, in the Lviv region, the TOP-100 most digitalized communities of Ukraine according to the results of 2024, in addition to the Lviv City Council, included: Zimnovodiv Village Council, Horodotsk Territorial Community, and Bibr City Council.

In martial law conditions, when infrastructure and access to resources are unstable, territorial communities can use a variety of digital tools to increase the stability of social project management. Combining technological innovation with attention to the human factor, security, and transparency, it is important to consider and minimize real and potential dangers. This allows not only to ensure the continuity of services, but also to minimize risks. The risks of social projects in the digital environment can be minimized using a number of strategies and tools, focusing on inclusivity, security, communication, and adaptability [45, p. 153].

To overcome and minimize the risks of digital transformation of communities when managing social projects under martial law, it is important to:

- Creating hybrid access models [40, p. 27], which is especially important during blackouts, destroyed networks, lack of electricity, damage to cables, and Internet equipment that breaks communication: along with digital channels, it

is worth supporting traditional ways of communication and receiving services. This could be personal counseling, a telephone hotline, or assistance in offline centers for those who cannot or do not want to use digital technologies.

- Organization of training programs to develop digital literacy: it is worth launching educational initiatives to increase digital literacy for vulnerable groups of the population (retirees, residents of rural areas), so that they can effectively use new tools. Educate project participants: implement training for participants and employees to teach them to recognize phishing attacks, fraud, and other types of cyber threats, as well as prevent negligence in the use of devices, as weak passwords, the use of untested software, or loss of devices (laptops, phones) often cause information leaks and increase the level of risk.

- Ensuring accessibility: It is necessary to ensure that digital platforms meet accessibility standards for people with disabilities.

- Partnership with business: aligning educational programs of universities and vocational schools with the demands of the business sector, involving socially responsible businesses in solving pressing social problems.

- Support for entrepreneurship: creating conditions for the development of small and medium-sized businesses that can create new jobs.

- Psychological support and safety: ensuring the physical and psychological safety of staff and volunteers is a priority. This includes mine safety training, providing psychological support, and, where possible, providing safe shelter,mandatory access to psychological help for social workers and residents dealing with war trauma.

- Active civil society: citizens' awareness and active protection of their privacy rights are a key safeguard against the transformation of a digital state into a state of total control [24, p. 31].

To ensure cybersecurity when managing social projects, you should:

- Invest in data protection: implement reliable cybersecurity and personal data protection systems, use modern encryption tools, multi-factor authentication, and regularly update software.

- Conduct regular audits and risk assessments: Conduct periodic cybersecurity audits to identify vulnerabilities and respond to potential threats in a timely manner. This will help prevent data leaks and fraud.

- Legislative regulation: compliance with personal data protection laws, which impose obligations on organizations to ensure data security. Effective legal regulation should create trust in digital technologies, protect citizens from threats, and at the same time not become a barrier to innovation and the development of the digital state.

- Ethical dilemmas of AI: regulating the use of artificial intelligence, including issues of responsibility for decisions made by algorithms, data bias, and ensuring transparency in the operation of AI systems. However, the cross-border nature of the Internet should be taken into account, which makes it difficult to apply national legislation to international companies and criminals operating from other jurisdictions.

- Data encryption: In the case of important confidential information, using encryption for both stored and transmitted data makes it unreadable to third parties.

Access restrictions: provide access to personal data only to those employees who need it to perform their duties.

To support social interaction in communities when managing social projects, you need to:

- Combine online and offline formats: use digital tools to facilitate communication, but do not forget the importance of in-person meetings, discussions, and events that help strengthen community ties.
- Create moderation of online platforms: the presence of moderators in online forums and chat rooms can help avoid conflicts, the spread of misinformation, and create a safe and inclusive digital environment.
- Conscious consumption of information: actively seek out and read sources with different points of view, even if they do not coincide with your own beliefs.
- Critical thinking: questioning information, checking its factual accuracy, and the sources.
- Diversifying sources: not limiting yourself to one social network or one type of media.
- Offline communication: Live dialogue with people who have different views is the best way to overcome the information "bubble".
- Partnership and cooperation, interaction with local authorities: establishing effective communication and cooperation with state institutions and local governments to coordinate efforts.
- Networking: active participation in networks of public organizations, expert communities, and informal formats of cooperation for the exchange of experience and resources [46, p. 18].

To overcome technological challenges when managing social projects, the following measures can be applied:

- Modernize infrastructure: replace outdated equipment with more sustainable and energy-efficient equipment, including technologies to ensure internet access during blackouts.
- Project planning: define clear objectives and realistic implementation milestones. Involve all stakeholders in the planning process to avoid resistance and ensure effective implementation.

• Testing and Iteration: Implement new technologies in stages, collecting feedback from users and adjusting the design according to their needs. This will allow you to identify and correct errors in a timely manner.

• Establish technical support and data backup: provide an effective technical support channel for all users to promptly resolve technical issues and prevent system failures.

• Decentralize data: distribute data storage to minimize the risk of information loss in the event of damage to one of the centers.

• Automate systems: design and implement systems that can function even in blackout conditions (for example, using generators or solar panels).

• Systems integration: ensuring correct data exchange between different public registries, allowing for automatic detection of inconsistencies.

• Develop international partnerships and cooperation: participate in joint programs with partner countries to guarantee the sustainability and security of public services.

To combat information threats when managing social projects, you should pay attention to:

• Transparency policy: clearly inform project participants about goals, processes, and results to prevent manipulation and disinformation.

• Information verification: implement procedures for verifying data used in the project and sources you reference to increase the reliability of information, follow the rules of digital hygiene, check sources of information, trust only official and verified media, and government websites.

• Application of agile project management methodologies (Agile): In conditions of unpredictability, projects must be adaptive. A clear definition of initial goals combined with flexibility to changing circumstances helps to respond effectively to challenges [1, p. 88].

• Be careful with links: never click on suspicious links in messages, even if they are from "friends" (their account could have been hacked).

• Data confidentiality: genuine government agencies, banks, or international organizations never ask for the full card number, PIN code, or CVV code via SMS, instant messengers, or email.

• Critical thinking: it is worth questioning information that causes strong emotions (fear, indignation, joy) and seeking its confirmation in other sources [40, p. 235].

• Use of antivirus software: A quality antivirus can help block access to fraudulent sites.

• Cyber resilience: Continuously improving the level of protection of government systems against cyberattacks.

• Dependence on donor aid: the state is forced to rely heavily on funding from international partners and donors to implement large-scale infrastructure and educational digital projects [23, p. 3].

• Slowing the pace of digitalization: lack of funding can slow the introduction of new technologies and services, holding back the overall development of the country.

Understanding the risks of digital transformation of communities when managing social projects and following basic security rules is important for protecting yourself in the digital environment. To achieve stability and prospects when managing social projects in wartime, one should focus on flexible adaptation, prioritizing the most important needs of communities, using social policy tools, and effective project management at all stages. In times of war, rapid response to urgent needs, ensuring basic social functions, as well as attracting resources and collaborating with partners to support vulnerable populations are key.

According to various studies, despite the challenges of war and digital inequality, the level of coverage of digital applications and government e-services in Ukraine is constantly increasing. Taking into account the practice of strategic planning, it is advisable to conduct a thorough analysis of potential cyber threats, information attacks, as well as infrastructure limitations, and pay special attention to vulnerable groups that may be excluded from digital initiatives. Launch educational programs on the use of digital tools to educate residents, especially the elderly and internally displaced persons. Hybrid delivery models that incorporate both digital and traditional (offline) ways of accessing and interacting will help bridge the digital divide and engage more participants. Investments in secure infrastructure will ensure the use of robust encryption technologies, two-factor authentication, and regular security audits to protect personal data. This requires - establishing a constant and open dialogue with stakeholders; clearly explaining how data is collected and used; providing regular reports on project progress;regularly analyze feedback and, if necessary, adjust the strategy in wartime conditions; be ready to quickly adapt to changes, have an action plan in case of power or communication disruptions; ensure that all digital aspects of the project comply with Ukrainian legislation on personal data protection. In general, successful management of a social project in today's conditions in Ukraine requires not only technical literacy, but also a deep understanding of the social and security context, combining innovation with attention

to people's needs and protection from risks and threats [3, p. 14].

While digitalization can ultimately bring cost savings and efficiency gains, the initial investment is significant and requires thoughtful public policies to ensure inclusiveness and accessibility of digital goods for all citizens,considering legal regulation as an important aspect of digitalization that must catch up with rapid technological development to ensure a balance between innovation, protection of citizens' rights, and state security.

In summary, internet usage rates are key indicators that can both amplify the risks of digital transformation in wartime and become a crucial tool for stabilizing social projects and increasing community resilience.

The following tools exist for managing social assistance:

- Unified Social Information System (USIS): The Ministry of Social Policy developed this system to simplify the receipt of social assistance and make it accessible to all citizens. The system allows for online applications and quick receipt of assistance, regardless of place of residence.
- Chatbots and messengers: using chatbots in Telegram, Viber, or on community platforms helps automate the provision of information about social services, collect data on residents' needs, and redirect requests to appropriate services.
- Internal communication apps: platforms like Slack and Microsoft Teams allow social project teams to stay connected and coordinate in real time, even if team members are in different locations.
- Monitoring and reporting systems [40, p. 27]: specialized platforms for public organizations allow you to track the progress of social projects, record the distribution of humanitarian aid, and create transparent reports for donors.
- Local democracy tools: In times of martial law, it is important to stay connected with citizens. Local democracy tools, such as online surveys and e-petitions, help engage residents in addressing important issues.
- Geographic Information Systems (GIS): GIS can be used to visualize community needs, such as the location of internally displaced persons, infrastructure destruction, or the distribution of humanitarian aid. This allows for more informed management decisions.
- Tools for data verification and protection: OSINT (Open Source Intelligence) technologies allow for the collection and verification of information from open sources, which is critically important for documenting war crimes and other events in wartime.
- Cloud technologies: transferring data to cloud storage ensures its preservation and availability, even if the physical infrastructure is destroyed.
- Two-factor authentication systems: Implementing two-factor authentication for all digital services increases data security and protects against unauthorized access.

In summary, engaging communities in digital transformation is an ongoing process that requires attention and resources. Some communities have achieved significant success, while others are just starting their journey due to the fact that adapting to digital changes for different population groups requires an individual approach, attention, and consistency. Unfortunately, and often the greatest risk during wars can often be the risk of human losses for the implementation of any of the existing projects. The loss of key personnel, death or injury of highly skilled IT professionals, project managers, civil servants, or other key employees can lead to the loss of critical knowledge, experience, and institutional memory and can cause delays, reduced quality of execution, or even the halting of certain initiatives. Only the preparation of a personnel reserve and succession planning, rapid training of new specialists, and advanced training of existing personnel will fill the gaps and improve the strategy for overcoming human losses while hostilities are ongoing.

Effective risk management during the implementation of social projects under martial law requires constant vigilance and a specific approach that combines classical methods with the unprecedented circumstances of the ability to quickly learn from experience and readiness for unforeseen changes, and will provide prospects to create a solid foundation for further reconstruction and development of the social sphere of Ukraine.

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