



The Innovative Models of Regional Development Management in the Field of Artificial Intelligence under Martial Law

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ABSTRACT

This article provides a comprehensive analysis of the transformation of regional public administration systems in Ukraine under martial law, focusing on the role of digital technologies and artificial intelligence (AI) as factors in enhancing the adaptability, efficiency, and sustainability of management decisions. It is shown that martial law accelerates destructive processes in infrastructure and destabilizes the socioeconomic environment, leading traditional linear administrative models to lose their managerial capacity and require innovative restructuring. It proposes considering amalgamated territorial communities as self-regulating systems whose development is possible through a combination of strategic planning, regular monitoring, and increased digital capacity. This article analyzes methodological approaches to the interpretation of “sustainable development” and “development,” highlighting their complementary nature and emphasizing the need for reflexive strategizing as a guide for the transition from inertia to qualitative transformation. AI is considered as a technological infrastructure that facilitates the algorithmization of management processes, increased transparency, forecasting of development dynamics, and policy inclusiveness. Key risks are also identified: privacy threats, algorithmic manipulation, unequal access to services, and the dangers of social injustice. Based on empirical data from the Digital Transformation Index (Q1 2025), the strengths and weaknesses of regional and community digitalization are identified: high indicators in public services and digital skills, and gaps in digital infrastructure and the digital economy. Examples of community leaders are highlighted. Practically oriented areas of AI application are presented (analytics, forecasting, GIS, crisis management, healthcare, education, logistics, monitoring and oversight). It is proven that the successful integration of AI into regional governance requires comprehensive coordination between the state, local government, business, and the scientific community, a clear moral and legal framework, investment in digital infrastructure, and improved digital literacy. Strategic approaches to overcoming barriers are proposed: medium-term planning, development of local digital infrastructure, inclusive educational programs, and mechanisms for democratic control over algorithmic decisions.

KEYWORDS

public administration, public policy, smart specialization, international standards, crisis management, region, regional development, regional policy, development, sustainable development, digital capacity, strategy, innovation, community, national security, reconstruction.



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Інноваційні моделі управління регіональним розвитком у сфері штучного інтелекту в умовах воєнного стану

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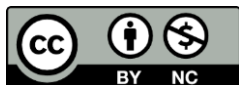
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У статті здійснено комплексний аналіз трансформації регіональних систем публічного управління в Україні в умовах воєнного стану з акцентом на роль цифрових технологій і штучного інтелекту (ШІ) як чинників підвищення адаптивності, ефективності та стійкості управлінських рішень. Показано, що воєнний стан прискорює руйнівні процеси інфраструктури та дестабілізує соціально-економічне середовище, через що традиційні лінійні адміністративні моделі втрачають управлінську спроможність і потребують інноваційної перебудови. Запропоновано розгляд об'єднаних територіальних громад як саморегульованих систем, розвиток яких можливий за умови поєднання стратегічного планування, регулярного моніторингу та зростання цифрової спроможності. Проаналізовано методологічні підходи до трактування “сталого розвитку” та “розвитку”, виокремлено їхній комплементарний характер і наголошено на необхідності рефлексивного стратегування як орієнтира переходу від інерції до якісних трансформацій. Розглянуто ШІ як технологічну інфраструктуру, що сприяє алгоритмізації управлінських процесів, підвищенню прозорості, прогнозуванню динаміки розвитку та інклюзивності політик, водночас виявлено ключові ризики: загроза приватності, алгоритмічні маніпуляції, нерівний доступ до послуг та небезпеки соціальної несправедливості. На підставі емпіричних даних індексу цифрової трансформації (І кв. 2025) окреслено слабкі та сильні сторони цифровізації регіонів і громад: високі показники у сфері публічних послуг і цифрових навичок та відставання у цифровій інфраструктурі і цифровій економіці; виділено приклади лідерів серед громад. Наведено практико-орієнтовані напрями застосування ШІ (аналітика, прогнозування, ГІС, антикризове управління, сфера охорони здоров'я, освіта, логістика, контроль і нагляд). Доведено, що успішна інтеграція ШІ в регіональне управління вимагає комплексної координації держави, місцевого самоврядування, бізнесу й наукової спільноти, чітких етичних і правових рамок, інвестицій у цифрову інфраструктуру та підвищення цифрової грамотності населення. Запропоновано стратегічні напрями подолання бар'єрів: середньострокове планування, розвиток локальної цифрової інфраструктури, інклюзивні освітні програми та механізми демократичного контролю за алгоритмічними рішеннями.

КЛЮЧОВІ СЛОВА

публічне управління, державна політика, смарт-спеціалізація, міжнародні стандарти, антикризове управління, регіон, регіональний розвиток, регіональна політика, розвиток, сталий розвиток, цифрова спроможність, стратегія, інновації, громада, національна безпека, відбудова.

1. Introduction

In the context of the ongoing armed conflict and martial law, the challenges for regional development in Ukraine are especially acute: the need for flexible, fast and effective management of resources, socio-economic, infrastructure and humanitarian policies is growing. Traditional models of regional management in many cases turn out to be insufficiently adaptive to rapid changes, managerial loads and uncertainty.

At the same time, the rapid development of digital technologies, in particular artificial intelligence (AI), provides new opportunities for the modernization of public administration systems through process automation, big data analysis, increasing transparency and efficiency of decision-making. Thus, the 2025 study "Integrating Artificial Intelligence into Public Administration: Challenges and Vulnerabilities" showed that the introduction of AI can contribute to increasing the efficiency, sustainability, and sustainability of management actions, optimize the allocation of resources, and improve citizen involvement in decision-making [29].

In addition, the paper "Municipal AI integration: a structured approach" (2025) demonstrates that there is a structured approach to the implementation of AI at the municipal level – taking into account the phases: from needs analysis and training, to risk assessment and feedback, which can be adapted to Ukrainian realities [7].

However, the implementation of such innovative approaches faces many problems: insufficient digital infrastructure at the regional level, uneven level of "readiness" of communities, lack of a system for monitoring and evaluating results. As noted in the same study "Integrating Artificial Intelligence into Public Administration: Challenges and Vulnerabilities", the lack of legal, ethical, and organizational support, the risks of algorithm bias, transparency and accountability issues are significant barriers to the reliable and fair operation of AI systems in public administration [29].

In addition, in the context of Ukraine, the need to improve the skills of public servants, the readiness of authorities for digital transformation is emphasized. At the same time, in 2024, within the framework of the expert dialogue "Artificial intelligence as a tool for professionalizing the public service" [9], the need for ethical and responsible implementation of artificial intelligence technologies in order to increase the efficiency of management processes was emphasized. The participants of the discussion emphasized that such approaches are especially relevant in the context of growing public demand for prompt, high-quality and affordable public services.

Therefore, the urgency of the problem lies in the need to develop a holistic model for the implementation of artificial intelligence technologies in regional management systems, which would take into account wartime conditions, institutional constraints, digital inequality, and requirements for the ethical functioning of algorithmic systems.

2. Literature Review

The problem of innovative models of regional development management in the field of artificial intelligence under martial law requires special attention, since it is technological tools that can compensate for limited resources, provide a quick response to crisis challenges and create prerequisites for long-term socio-economic stability. Accordingly, artificial intelligence is gradually turning into a key factor in the modernization of regional policy, which affects not only the speed of managerial decisions, but also their quality, transparency, and validity. This approach is impossible without a comprehensive rethinking of the role of digital transformation in the public sector: technologies are no longer just auxiliary tools, but form new standards of interaction between the state, economic actors and society.

The discussion about the feasibility and limits of the use of AI in public administration demonstrates significant conceptual gaps, which is reflected in scientific assessments. S. Aspiroyan [2], analyzing the risks of digitalization of political processes, substantiates that the uncontrolled use of algorithms can lead to the substitution of political choices for technocratic solutions, which in times of war poses an additional threat to the legitimacy of state institutions. On the contrary, O. Vasileva and N. Vasileva [28] demonstrate that digital modernization can strengthen the resilience of communities if implemented in conjunction with inclusive development models and mechanisms of civic participation. Although these positions are different in scope and subjectivity, they both point to the

same foundation: technologies are not self-sufficient – their effectiveness is determined by the institutional context.

An important theoretical and practical shift is outlined in the materials of the Higher School of Public Administration [9], where artificial intelligence is defined not as a tool for simplifying bureaucratic procedures, but as a means of professionalizing the civil service. In this context, management effectiveness appears not as a set of technical solutions, but as a result of improving managerial culture, the ability of employees to work with data and critically evaluate algorithmic recommendations. This approach correlates with the position of V. Golina and S. Shramko [10], who prove that intelligent technologies can strengthen the security policy of the state, but their success depends on the quality of institutional practices, and not only on the level of technical equipment.

The analysis of investment and innovation models presented by A. Korol, A. Pomaza-Ponomarenko and O. Akhmedova [13] allows us to conclude that the introduction of AI in regional policies has not only an economic but also a strategic dimension. Technological solutions are able to form a new managerial logic, which provides for the optimization of resources and increasing the adaptability of administrative systems to external changes. Similar trends can be traced in the work of K. Kosukhina and A. Khmelnytskyi [14], which emphasizes that the use of artificial intelligence engineering systems in local communities allows not only to automate routine services, but also to form new standards of communication between the authorities and the population.

Further deepening of digital transformation is impossible without a regulatory framework and improvement of management control mechanisms. The research of I. Kotov [15] and O. Kraynyk [16] demonstrates that sustainable development of communities is possible only if digital solutions are integrated into the system of strategic planning and legal regulation. The state is gradually realizing this need: the reports of the Ministry for Communities and Territories Development of Ukraine [19] focus on the need not for targeted implementation of technologies, but for the formation of an ecosystem of digital interaction capable of ensuring the managerial security of regions.

In the studies of T. Panchyshyn and M. Vdovin [22], an important logic can be traced: digitalization becomes effective only when it changes the operating model of management, and not only modernizes its technological component. In this sense, the work of M. Patynska [23] emphasizes that sustainable development of communities in the context of European integration is impossible without harmonizing local digital strategies with a wider space of European practices and standards. Thus, the issue of technology turns into a question of responsibility – institutional, managerial and legal.

Particular attention is drawn to the study of A. Pomaza-Ponomarenko and D. Taraduda [24], which analyzes the influence of algorithmic mechanisms on the decision-making process in regional management. The authors argue that the effectiveness of AI does not depend on the availability of technical solutions as such, but is formed through the quality of institutional protocols, the ability of authorities to work with data and predict negative effects. The regulatory vector of support for technologies at the national level is indicated in the Resolution of the Cabinet of Ministers of Ukraine No. 1556-p [4], which sets the framework for the development of artificial intelligence, but does not eliminate administrative barriers at the local level.

At the same time, the research of L. Trebyk [25] demonstrates that the state is beginning to move from declarative strategies to the institutional design of innovative solutions.

The implementation of artificial intelligence at the local level, presented in the studies of P. Barcik et al. [3], show that the digital transformation of municipal administration is intrinsically linked to the ethical responsibility of management institutions and the preservation of social sustainability. This logic of development is consistent with the conclusions of M. Dykha, V. Lukianova et al. [5; 17], who consider digital strategies as a tool for minimizing interregional disparities, strengthening spatial coordination and increasing the manageability of regional development. Under these conditions, artificial intelligence acts not only as a technical resource for modernization, but also as a mechanism for the formation of a new managerial rationality based on a combination of innovative dynamics, social security and community trust.

Thus, the modern scientific discussion confirms that the introduction of artificial intelligence in regional management is not a mechanical technical update, but requires a conceptual rethinking of the management culture, regulatory environment and strategic priorities. During martial law, these requirements are intensified, because it is digital technologies that become a guarantor of managerial stability, a compensatory tool for limited resources, and a mechanism for rapid adaptation to risks that traditional model of public administration are no longer able to effectively overcome.

3. Problem Statement

The purpose of the study is to substantiate innovative approaches to managing regional development using AI technologies under martial law, which can increase the efficiency, adaptability and sustainability of management decisions in different Ukrainian regions.

4. Methods and Materials

The study aimed to establish the significant impact of socioeconomic fluctuations and instability, as well as technical changes, on the adaptive capacity and resilience of regional systems.

To achieve these ambitious goals, a variety of research methods – both quantitative and qualitative – were used within the framework of a systematic approach. More specifically, this included the analysis of the texts of relevant international documents (in particular, the European Charter of Local Self-Government and the Law of Ukraine on Local Self-Government), as well as documents related to regional policy and local self-government in Ukraine. Such deep logic will allow us to create conditions for a critical understanding of the opportunities and ways to integrate digital technologies and artificial intelligence (AI) into existing management systems, determine the functional mechanisms for their application, as well as analyze their further impact through the prism of effective resource allocation, decision-making management and sustainable development of territorial communities.

In addition, a comparative study was conducted to examine various European regional digital transformation efforts and e-governance models developed in other countries, such as the United Kingdom, Germany, Poland, and Estonia. The comparative method in particular has helped to identify and crystallize best practices that can ensure the effective application of AI in critical areas such as resource planning, forecasting, and logistics management. In particular, the main attention was paid to the technologization of public administration, algorithmizing of management processes and the safe development of digital infrastructure within the framework of competence programming, which was skillfully combined with advanced training of local government officials.

To better understand the effectiveness of digital tools and artificial intelligence, carefully analyze the data from the Digital Transformation Index of Regions and Territorial Communities from the Ministry of Digital Transformation of Ukraine (Ministry of Development and Development). Various statistical indicators were used to conduct a holistic analysis of the level of digitalization in the field of public services, the development of skills of the population and infrastructure, as well as to identify the advantages and weaknesses included in the processes of digital transformation in the regions.

In addition, to study the evolutionary dynamics of community management models – from archaic linear administrative mechanisms to new ones controlled by artificial intelligence, methods of logical-system and structural-functional analysis were applied, taking into account various socio-economic, environmental and technological indicators. The use of benchmarking and case studies has identified important drivers that are catalysts for community management approaches to be taken into account in automation, including digital analytics, population needs modeling, GIS integration, crisis strategy management, and improving citizens' digital competencies.

5. Results and Discussion

The functioning of regional management systems in Ukraine under martial law is undergoing a radical phase of transformation, which is a consequence not only of the destruction of infrastructure and disruption of logistical links, but also of the growing instability of the socio-economic environment. Under such conditions, traditional administrative models based on linear management procedures demonstrate a loss of controllability: they are not able to quickly respond to changes in the needs of the population, the speed of redistribution of resources and the emergence of unpredictable risks. That is why the problem of transition to innovative models of regional governance that integrate digital technologies, in particular AI, is of fundamental importance.

Amalgamated territorial communities can be considered as self-regulating socio-economic systems, the stability of which provides the foundation for the formation of civil society. At the same time, their sustainable development involves not only the preservation of the existing institutional structure, but also the formation of a new quality environment that takes into account the needs of the

population, environmental requirements and economic prospects. As M. Patynska emphasizes, sustainable development is not reduced to maintaining the status quo, but includes the creation of a socially oriented economy, the involvement of citizens in democratic participation and the long-term provision of safe living conditions for current and future generations [23, p. 32]. In this case, a natural question arises: to what extent can the digital economy serve as a catalyst for such development and form new mechanisms for managing community resources.

The analysis of the definitions of sustainable development, proposed by I. Kotov and M. Patynska, indicates an important methodological discrepancy between the concepts of “sustainable” and “development”. The first emphasizes the continuity, stability and endurance of social processes, while the second means a qualitative transformation of the object to a more effective level of functioning [15, p. 15]. Such a division makes it possible to interpret sustainable development not as a static equilibrium, but as a sequence of qualitative and quantitative changes that ensure the adaptability of territorial systems to new conditions.

However, the mere fact of continuity of development does not guarantee its quality. Over time, there is a need for a starting point – the moment when the system moves from inertial movement to reflective strategizing. In my opinion, sustainable development should be considered such a conceptual guideline, since it makes it possible to streamline the spatial priorities of the community and determine the rules for access to resources. The implementation of this logic requires an integrated approach to public administration, integrating economic, social and environmental tools at different levels of administrative interaction. The leading task is the formation of conditions under which the internal resources of the community – financial, human, organizational – provide solutions to local needs and reduce dependence on external factors. As stipulated by the provisions of the European Charter of Local Self-Government, local governments must carry out the resolution of a significant part of public affairs in the interests of their population, and not according to the principle of a centralized directive.

The success of this approach is largely determined by the strategic discipline of management. O. Khokhulyak convincingly argues that the development of the territorial community is based on a combination of long-term planning with regular monitoring of intermediate results and correction of managerial decisions. In my opinion, strategic sustainability is the mechanism that allows municipalities to avoid chaotic decisions, respond to public needs, and expand digital capacity. Medium-term planning, which works at the intersection of operational efficiency and gradual digital modernization, primarily in the direction of stimulating the digital economy and creating new service management models, is of particular relevance for Ukraine [8].

Within this logic, artificial intelligence should be considered as a technological infrastructure capable of supporting the algorithmizing of management processes. Scientific research unanimously emphasizes that the implementation of AI is not a purely technical act; It changes all levels of public administration: from the internal structure of bureaucratic procedures to the mechanisms of communication between community entities [25, p. 373]. In our opinion, such changes are not only designed to optimize socio-economic development, but also increase the inclusiveness of policies, the accuracy of managerial decisions and the ability of authorities to predict the dynamics of development.

At the same time, digitalization cannot be reduced to technocratic enthusiasm. Any integration of intelligent systems into public administration must comply with the principles of human rights protection, digital security, non-discrimination and equal access to services. O. Kravnyk's remarks on fair budget distribution point to a critically important point: the economic efficiency of AI should not replace social justice. In this context, digital regulation becomes not a tool of automation for the sake of savings, but a mechanism for improving the quality of collective well-being [16, p. 47].

L. Trebyk's research demonstrates another important aspect – the transformation of social space under the influence of information and communication technologies. The speed of data processing, the scale and intensification of digital contacts change not only management processes, but also the idea of the boundaries of publicity and privacy, giving rise to new risks: abuse of algorithms, manipulation of digital identity, loss of trust in institutions [25, pp. 374–375]. In this context, the development of digital literacy and critical thinking of citizens is of particular importance, since without social competence, any algorithmic modernization will remain decorative.

The technologization of public administration, which is formulated by L. Trebyk, is essentially an attempt to establish a new mode of interaction between data, algorithms, and managerial activity (Fig. 1).

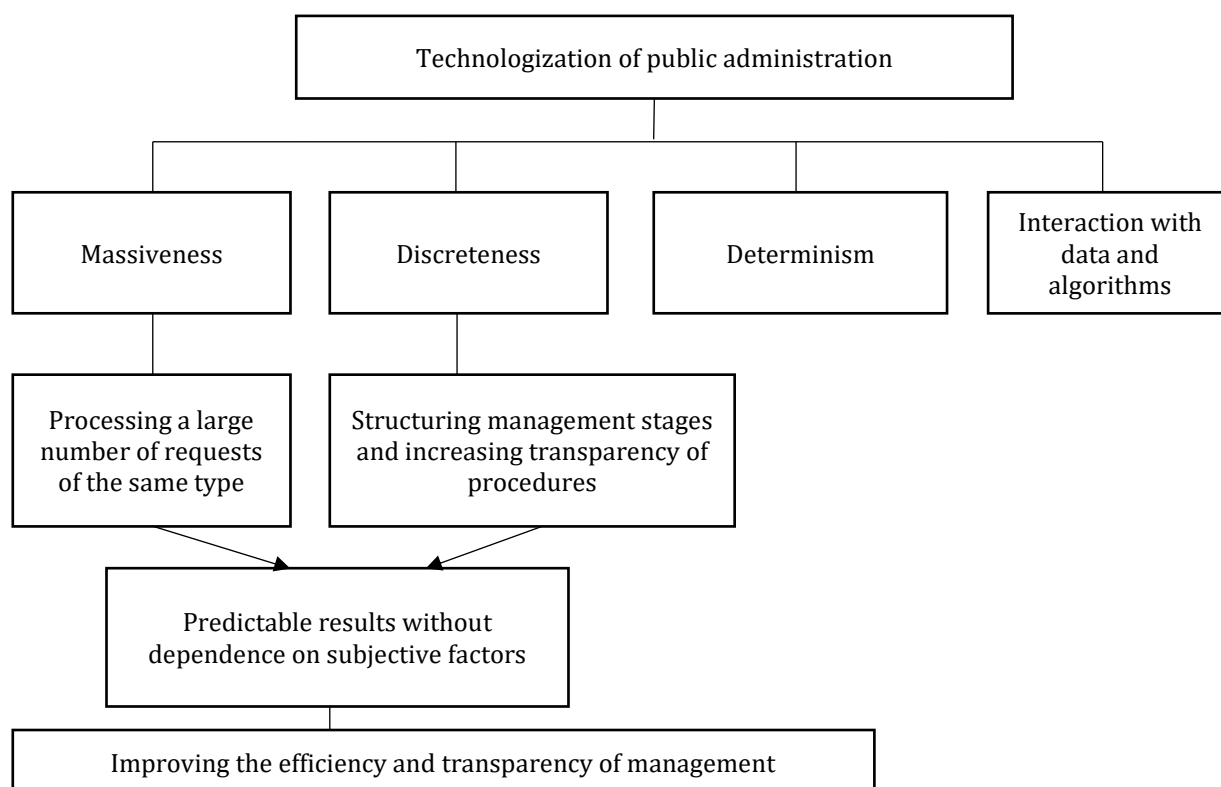


Figure 1. Model of technologization of public administration according to L. Trebyk

Source: Compiled by the authors on the basis of [25, p. 375].

Massiveness allows intelligent systems to process a significant number of requests of the same type; discretion – to structure management stages and increase the transparency of procedures; determinism – to guarantee predictable results without dependence on subjective factors. In my opinion, it is this model that creates conditions for deeper integration of AI into regional strategies, but only under the condition of institutional responsibility, democratic control, and a mature management culture.

It is digital transformation that today demonstrates the clearest example of such combinatorial dynamics: it affects the indicators of economic activity, managerial efficiency, social communication and spatial integration.

In this context, the Ministry of Digital Transformation uses the Digital Transformation Index of Regions and Communities, which records the fulfillment of not only quantitative goals, but also changes in the structural maturity of management systems, is indicative.

Thus, according to the results of the first quarter of 2025, the average indicator of the Digital Transformation of Regions Index in Ukraine was 30 points out of 100 possible, while the highest results were demonstrated by Dnipropetrovsk and Lviv regions (43 points each) and Ternopil region (42 points). The regions have made the greatest progress in the digitalization of public services, the development of digital infrastructure and digital skills, while the digitalization of territorial communities and the digital economy remain weaker areas [16].

As for communities, the average Index was 16 points out of 100 possible, with Kryvyi Rih (62.97), Vinnytsia (62.75), Ternopil (60.35), Lviv (55.61) and Kharkiv (54.57) communities becoming leaders (Fig. 2).

The best results were recorded in the digitalization of public services and the development of digital skills, while digital infrastructure and the economy remain the weakest areas. Important achievements of communities were: the presence of 85 industrial parks; 43% of IT enterprises with female managers; average level of digitization of services for business – 10%; more than 800,000 doctors, 240,000 teachers and 88,000 employees of local self-government bodies passed the Cyfrogram; almost 12,000 settlements are connected to fiber-optic networks, and 23,000 are provided with 4G mobile communications; 166 municipalities have an integrated video surveillance system; 3,300 kindergartens have introduced an electronic queue for enrolling children, and 1,280 hospitals have introduced an online appointment with a doctor [8].

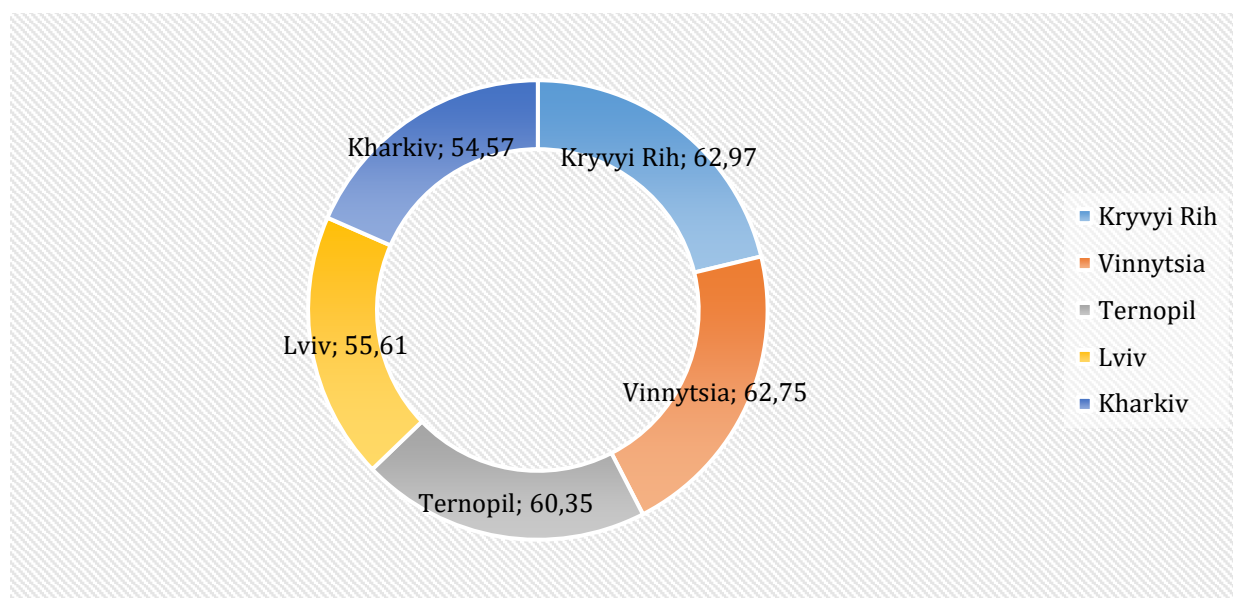


Figure 2. Average Digital Transformation Index of Territorial Communities of Ukraine (points)

Source: Compiled by the authors based on [8].

The main problem that has arisen in the context of the rapid development of artificial intelligence (AI) and its large-scale integration into social processes is the need to clearly distinguish between the functions that can be delegated to AI and those that remain exclusively the competence of people (public servants). This task, according to A. Pomaza-Ponomarenko and D. Taradud, is further complicated by the versatility of the concept of sustainable community development, which covers a wide range of social spheres – from ensuring the effective functioning of transport infrastructure to supporting the psychological well-being of community members [24, p. 71].

Based on the analysis, it is possible to identify several strategic directions for the sustainable development of regions and communities in the context of digitalization, the functionality of which is potentially subject to significant automation using AI, which can significantly enhance the efficiency of these processes. Among these aspects, it is worth paying attention to the following (Fig. 3).

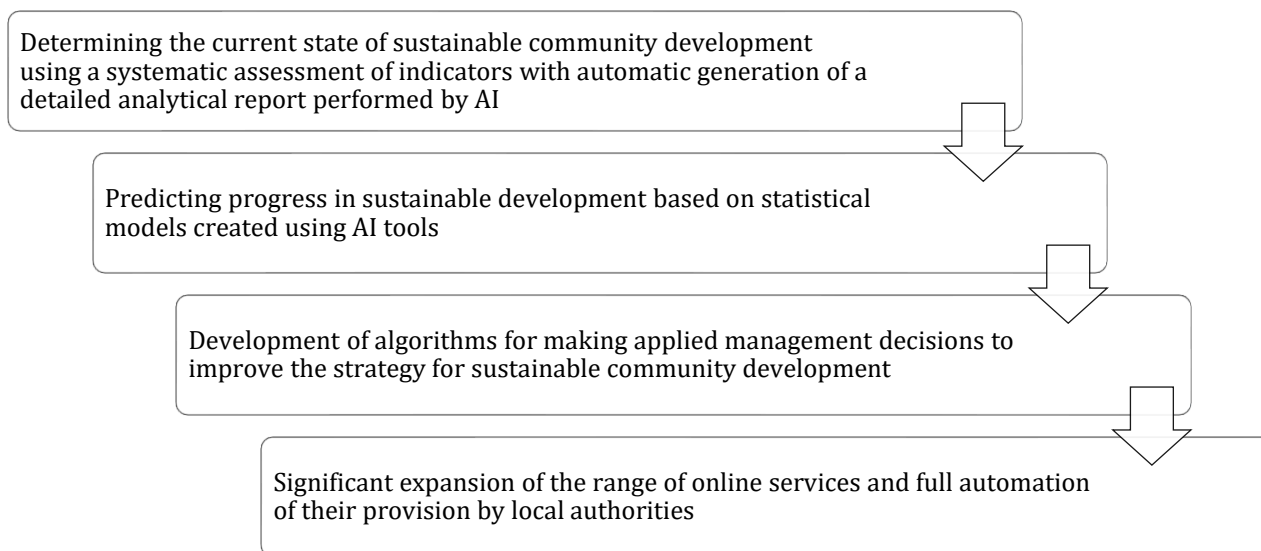


Figure 3. Main directions of automation of sustainable community development by means of AI

Source: Compiled by the authors.

The effective use of such AI capabilities will potentially contribute to the optimization of public administration processes aimed at the sustainable development of regions and communities. AI opens up new opportunities for public authorities to analyze data, predict socio-economic processes, and improve the efficiency of management decisions. The use of AI in the field of regional development is

becoming especially relevant, where it is necessary to quickly respond to dynamic changes in the environment and smart resource planning, in particular in the following areas:

AI-based digital analytics for public management decisions on regional development. AI allows processing large amounts of socio-economic, environmental, and demographic data, which is critical for shaping effective regional policies. Thus, the UrbanDataPlatform project has been implemented in Poland, which analyzes urban mobility, pollution levels, and social indicators based on AI and helps municipalities plan infrastructure investments [3, p. 138]. The KI-Kompass project has been implemented in Germany, in particular in the states of North Rhine-Westphalia, where AI technologies are used to model scenarios for the development of regions taking into account climate change, population migration, and economic dynamics of the development of these states [12].

Forecasting the needs of citizens and service analytics. AI is actively used to predict citizens' needs for public services. In the UK, local councils use machine learning algorithms to predict social housing needs and plan subsidies [1; 26]. In Ukraine, some municipalities, with the support of international programmes (for example, U-LEAD with Europe), have started experimental implementation of intelligent systems to support managerial decision-making in urban planning, in particular to analyze the accessibility of medical institutions or kindergartens based on AI models [27].

Smart geographic information systems with AI for regional planning. One of the key applications of AI is spatial planning. Estonia has introduced the X-Road+AI system, which combines data from cadastres, censuses, satellite imagery and machine learning models for zoning recommendations [6]. In general, in Ukraine, within the framework of the national geographic information system "Unified Digital Mapping", there are already opportunities for the integration of AI elements to identify potential hazards (floods, landslides) in the communities of the Carpathian region [20].

Anti-crisis public management and AI in the security of regions. During emergencies, AI can be used to simulate affected areas, calculate evacuation routes, and identify critical infrastructure facilities. Such technologies have already been tested in Latvia and the Netherlands in the field of public security [21]. In 2023–2024, Ukrainian regional military administrations began testing the integration of AI-based analytics as part of the management of humanitarian headquarters, in particular to optimize the placement of IDPs and logistics needs [19].

Thus, among the practice-oriented approaches to the implementation of AI in the context of sustainable development of regions and communities, it is advisable to single out its application in such areas as logistics, protection of the population, management of material and financial resources, improvement of the quality of education, development of science, as well as integration into public management systems of settlements.

At the same time, other processes are taking place in Ukraine that form a favorable environment for the development of digitalization, including the GovTech segment. This direction is increasingly consolidating the efforts of citizens, business and government in order to form an innovative and effective state of the future. This vector of digital transformation covers several key aspects.

1. Digital decentralization. The pace of digital reform initiated by government initiatives remains consistently high (evidence of this is the initiative of the Ministry of Digital Transformation "WinWin" [20]). At the same time, state policy is shifting towards strengthening political support for the development of GovTech and transferring some digital tools to the local level. This is facilitated by a new wave of regional initiatives and the manifestation of the political will of local leaders, in particular mayors, who have become more active in response to Russia's full-scale aggression.

2. Technological changes. Developed countries (in particular, the United Kingdom, a leader in the implementation of GovTech, and Ukraine, which is only forming its own model of digital transformation) face the problem of fragmentation of software used by government and other government agencies, which can provide up to £1 billion in savings and cost reductions of about 25% [11]. In view of this, this approach also contributes to the reduction of cyber risks, which is critically important in the public administration sector.

Against this background, the Ministry of Digital Transformation of Ukraine announced the launch of WinWin AI Center of Excellence – an innovation center specializing in the creation and implementation of artificial intelligence technologies for the needs of public administration. The main mission of the center is to develop AI solutions that will stimulate the development of the state, business and the educational sector, education and entrepreneurship. During the current year, the key tasks of the center include the formation of a mechanism for the implementation of pilot AI projects, the launch of at least three full-fledged technological solutions, as well as the creation of a national language model

for the needs of public services. A separate area of the center's work involves the integration of artificial intelligence into the digital platforms "Diia", "Mriya" and AI Legal [20].

3. Support for small businesses. In the modernization of digital systems of the public sector, it is planned to involve not only large technology companies, but also small and medium-sized businesses. The services of such companies are often more cost-effective and more innovative. If in 2015 cooperation with small businesses accounted for 27% of the budget, then in 2020 this share increased to 33%. The result was a reduction in the share of the TOP-10 providers of digital services and business outsourcing - from 53% to 39% over the past five years, which indicates the gradual formation of a competitive environment.

4. Public procurement reform. One of the significant obstacles to the digital development of public administration is the complexity and duration of public procurement cycles, which limits the financial and time resources of companies and reduces the interest of investors. In order to solve this problem, dozens of public startups with the participation of representatives of the private sector were supported. At the same time, the implementation of Ukraine's ambitious plans in the field of GovTech is threatened by the full-scale aggression of the Russian Federation. sector largely depends on access to cooperation with European institutions, which is complicated against the background of growing competition for technology markets among other countries [18].

Thus, digitalization under martial law is not only a technical tool for modernization, but also a leading mechanism for ensuring social justice, transparency and efficiency of governance at the local level, opening up new horizons for the sustainable development of territorial communities.

Artificial intelligence creates numerous opportunities for the innovative development of public administration in the field of regional and community development. The process of digital transformation of public administration is gradually being integrated into state institutions and, although unevenly, covers the level of local self-government. At the same time, this direction is becoming increasingly popular among scientists who study technological changes and their impact on public systems.

For Ukraine, the experience of implementing artificial intelligence in the field of public management of the development of regions and communities serves as an important reference point for the creation and adaptation of the relevant regulatory framework. However, the process of implementing AI at the national level is currently developing slowly and for the most part does not go beyond declarative statements about the need to move "in step" with global trends in the development of the digital society. At the same time, at the regional and local levels, the situation looks more dynamic: more and more cities declare their intention to transform into Smart Cities. There is a growing awareness that the digital age is becoming a reality, and one of its key attributes is the active implementation of artificial intelligence technologies in the systems of public administration, strategic planning and management of socio-economic development.

The increase in data volumes in various fields of activity has become a catalyst for the development of artificial intelligence technologies, opening up prospects for improving the efficiency of public administration, including at the regional level. At the same time, the further introduction of such technologies into community and regional management systems largely depends on the level of digitalization of the country, in particular, access to high-speed Internet in rural areas. Foreign experience demonstrates that the success of many areas of public administration is already determined by the use of AI. At the same time, there is a risk in Ukraine that the process of implementing the "digitalization policy" will turn into a formality, repeating the mistakes of implementing e-government - i.e., superficial changes without modernizing governance structures, interaction models and technological base [9].

Unlike e-government practices, digital transformation based on artificial intelligence is possible only if the data accumulated and used by state institutions are widely digitized, as well as their processing is automated and its quality is improved with the help of modern AI technologies. This is aimed at significantly improving the work of both local self-government bodies and state institutions in general.

Therefore, digital transformation in the public and non-state sectors cannot be limited only to improving public services or expanding their range. It should include a complete restructuring of approaches to the functioning of public administration bodies in accordance with the capabilities and requirements of artificial intelligence technologies.

6. Conclusions

Summarizing the results of the study, it should be emphasized that innovative models of regional development management in the field of artificial intelligence are formed not as a separate technical initiative, but as a component of a deep transformation of public administration. Martial law has radically accelerated this dynamic, as regional systems have been forced to respond to critical challenges: instability of labor markets, disruption of supply chains, migration flows, shortage of resources, and the need to support the war economy. In such conditions, artificial intelligence becomes a mechanism not only for operational optimization, but also for the structural redistribution of competencies, managerial logic and responsibility. In general, its role is to increase the speed of decision-making, improve the forecasting of socio-economic trends, ensure the rationality of resource planning, as well as maintain the continuity of key services in situations of increased uncertainty.

At the same time, the introduction of technologies in itself does not guarantee a high-quality result. The effectiveness of innovative management models is determined by the level of institutional maturity and human resources, the availability of data, the transparency of procedures for their use and responsibility for the consequences of automated decisions. The use of artificial intelligence without a clear regulatory policy only reproduces previous management dysfunctions in a digital format, while the development of competencies, the formation of standards, and the modernization of the regulatory environment make it possible to turn local pilot projects into stable system tools. For Ukraine, a strategically important task is to build a long-term governance model that combines regional autonomy with a coordinating national level, integrates centers of expertise, digital platforms and partnerships with international institutions. In this paradigm, artificial intelligence ceases to be a one-time innovation and turns into a modern development infrastructure capable not only of ensuring the rapid recovery of the country, but also of forming a competitive economy of the future.

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