

Digital Transformation and Local Self-Government Bodies: Strategic Planning and Obstacles

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Թվային փոխակերպում և տեղական ինքնակառավարման մարմինների ռազմավարական պլանավորում և խոչընդոտներ

Մխիթարյան Մարինե Մ.

ՀՀ պետական կառավարման ակադեմիա, ասպիրանտ

ՀՀ ՊԵԱ, Նախագծերի կառավարման պատասխանատու (Երևան, ՀՀ)

Ամփոփագիր. Հոդվածում անդրադարձ է կատարվում ՀՀ տեղական ինքնակառավարման մարմինների կառավարման համակարգերի թվայնացմանը, գործիքակազմերի ներդրմանը, համակարգերի զարգացման անհրաժեշտությանը՝ կառավարման արդյունավետության տեսանկյունից: Ուսումնասիրության նպատակն է՝ վեր հանել ՏԻՄ թվայնացման առկա խոչընդոտներն ու առաջարկվել լուծումներ դրանց հաղթահարման ուղղությամբ: Համեմատական և բովանդակային վերլուծության համար հիմք են հանդիսացել ՀՀ ռազմավարական փաստաթղթերի, միջազգային կազմակերպությունների զեկույցների տվյալները: Ինչպես ցույց տվեց հետազոտությունը, չնայած համաշխարհային հեղինակավոր զեկույցներում Հայաստանը թվայնացման ցուցանիշներով բարձր դիրք է զբաղեցնում, այնուամենայնիվ, տեղական ինքնակառավարման մակարդակում առկա են մի շարք խոչընդոտներ՝ թվային գրագիտության պակաս, ենթակառուցվածքների, էլեկտրոնային համակարգերի անկատարություն, աշխատակազմերի՝ էլեկտրոնային համակարգերի տիրապետման մասնագիտական գիտելիքների ցածր մակարդակ: Ներկայացվում են առաջարկներ՝ առկա խնդիրների բարելավման, թվային փոխակերպման լավարկման վերաբերյալ:

Հանգուցաբառեր և բառակապակցություններ՝ Թվային փոխակերպում, էլեկտրոնային կառավարում, թվային կառավարում, տեղական ինքնակառավարման համակարգի թվայնացում

Цифровая трансформация и органы местного самоуправления: стратегическое планирование и препятствия

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Аннотация. В статье рассматривается цифровизация систем управления органами местного самоуправления Республики Армения, внедрение инструментов и необходимость развития системы с точки зрения эффективности управления. Целью исследования является выявление существующих препятствий цифровизации органов местного самоуправления и предложение решений по их преодолению. Основой для сравнительного и содержательного анализа послужили данные стратегических документов Республики Армения и докладов международных организаций. Как показало исследование, хотя Армения занимает высокие позиции по показателям цифровизации в авторитетных мировых отчетах, на уровне местного самоуправления существует ряд препятствий: отсутствие цифровой грамотности, несовершенная инфраструктура, электронные системы, низкие профессиональные знания персонала в освоении электронных систем. Представлены предложения по улучшению существующих проблем и оптимизации цифровой трансформации.

Ключевые слова и словосочетания: Цифровая трансформация, электронное правительство, цифровое управление, цифровизация системы местного самоуправления

INTRODUCTION: The path to digitalization of local self-government passes through the transformation from electronic to digital management systems. Digital transformation entails putting this

automated toolkit into practice if local self-government bodies want to automate their job through electronic management. The digital development of local self-government is one of the

priorities for developing public administration. Global trends in digitization are rapidly growing economies. State administration and local self-government bodies provide new, modern, and practical solutions for service provision, strengthening system-human relations due to the rapid identification of citizens' problems and targeted application of solutions.

Digitization increases the transparency of the activities of management systems, which contributes to increasing trust in them.

The study of the digitalization of local self-government bodies aims to identify existing obstacles and contribute to identifying and presenting ways to solve them.

Steps have been taken towards the digitalization of local self-government bodies in the Republic of Armenia, both at the legislative level and through grant support provided by international organizations. Nevertheless, there remain numerous barriers to the broader digital transformation, and the reforms that have been put in place are still in the e-government transition phase.

LITERATURE REVIEW: Digital transformation is the transition from analog data to digital and modern digital technologies in systems at all socio-economic levels [1, p. 2].

Digital technologies can become an effective means for communities to modernize, improve citizen engagement, and achieve sustainable development goals. Such projects are large-scale and have challenges related to privacy, data collection, and security [10].

The availability of suitably qualified specialists is deemed crucial by researchers when evaluating barriers to local government digitization. Changing personnel policy is a primary but difficult stage on the path to the digitalization of local governments. The lack of appropriate specialists and the lack of development of citizens' information and communication technology (ICT) skills, one of the conditions for the successful implementation of e-government systems, leads to an overall low-quality level of digitalization [9].

As researchers rightly point out, the option to prevent migration from communities and bring the population closer to the community is to have competitive communities, which is impossible without digital reforms [8].

The need for legislative changes to digitize local self-government bodies is at the heart of digital transformation. In our opinion, the paucity of studies by Armenian researchers on the topic is due to the generally low level of digitization of the RA public administration system, which does not yet allow researchers to make predictions about the

possibilities of local self-government digital management.

RESEARCH METHODOLOGY: The article is based on a study of the legislative framework of the Republic of Armenia, reports of international organizations on the electronic governance systems of the Republic of Armenia, and an analysis of global digitalization indicators of countries. In order to identify obstacles to the digitization of local self-government bodies, the provisions related to local self-government bodies on the path of the RA digitalization strategy and their implementation were studied using the content analysis method.

The level of e-government in the Republic of Armenia was assessed using the comparative analysis method to identify its strengths and weaknesses. The analysis was carried out by comparing and contrasting the relevant indicators of international reports.

The concept of "local self-government" is defined in Article 9 of the Constitution of the Republic of Armenia as the right and capacity to decide on publicly significant issues in the communities of the Republic of Armenia under their own jurisdiction, based on the interests of the citizens and in compliance with the law.

This definition is already adequate to view the local self-government system as one that freely exercises the right to independently plan issues and solutions within the public administration system according to their own interests. The concept of "the interests of the community resident" implies that local self-government bodies must be able to find mechanisms to stand close to the resident, see their problems, and effectively solve them.

World experience shows that the best solutions are already being implemented in parallel with the development of digital systems.

Digital governance of local self-government, like other provisions of the system's strategic planning, should be defined by relevant legal acts.

ANALYSES: The concept of "digital governance" has replaced the idea of "e-governance." Efficient implementation of digital governance is contingent upon the development of e-governance platforms.

The classic formulations of the industrial revolutions of the global economy say that now is the period of the digital revolution of the economy, which is taken into account by both economic entities and superpowers. The European Union (EU), the Eurasian Economic Union (EAEU), the United Nations (UN), and the World Bank (WB) are setting digital agendas, and superpowers are linking the stages of prospective developments of decades with digital solutions in their strategic planning. The decisions and strategic planning of the EAEU,

which are economically related to us, extend to the perspectives of 2030-2045. In cooperation programs with member states, facilitating and introducing digitalization processes are of primary importance to ensure effective economic interaction between countries. The main emphasis is on providing economic development through digitalization, reducing the shadow economy, and developing traceability systems.

Digital governance of local self-government is the implementation of actions and services aimed at the effective implementation of delegated and own powers of local self-government bodies through information and communication technologies.

The e-government process in the Republic of Armenia began in the 1990s. The most promising programs began to be implemented in 2008, when the Action Plan was adopted to develop the e-government system. Through a variety of electronic technologies, the basis was established for improved access to state and local self-government services. www.e-gov.am was created with more than 20 online services.

We have seen steps and legislative initiatives towards Armenia's digitalization strategy since 2018, when the vision for the digitalization of the local self-government system, the "Armenia Digital Transformation Agenda" document, was published, which reflected the prospects for Armenia's digital transformation [2].

The main changes included several areas:

- Smart, "SMART" government.
- A workforce equipped with digital skills.
- Highly efficient infrastructure.
- Cybersecurity.
- Competitive private sector.
- A collaborative and effective institutional framework.

The 2021-2025 Digitalization Strategy of Armenia, adopted in 2021, shows trends in the uneven development of e-government systems.

Although the development of the public administration system itself implies interconnected development with the electronic management systems of local self-government bodies, in parallel with the top-down development programs, we see only two bottom-up, local self-government systems development programs. According to the published development plan, by 2025, about 300 services provided by state and local self-government bodies should be digitized and provided online, including about 150 licenses and permits that could be obtained online (the issuance of construction permits should also be digitized entirely). Also, according to the plan, by 2025, the need to visit state and local self-government bodies to receive services

would be eliminated. State and local self-government bodies would communicate with legal entities exclusively electronically, and citizens would communicate primarily electronically. Surveys showed that the two planned programs were partially implemented. As a reason for underperformance, representatives of local governments indicate:

- There is a lack of user-friendly systems in the implemented systems.
- Lack of employees with digital skills in the staff.
- Lack of digital literacy among residents.

Based on the target and expected results, the government outlined the following strategic perspectives for the implementation of the digital transformation process in Armenia back in 2018:

- 2018-2020. Digital leap (emphasis on large-scale investment in infrastructure and updating existing resources).
- 2021-2025. Digital acceleration (investments to ensure the highest efficiency).
- 2026-2030. Digitalization drives development (strong emphasis on innovations to ensure growth) [12].

The decision of the Government of the Republic of Armenia, "On Approving the Public Administration Reform Strategy, the Roadmap and the Results Framework for 2023-2025", signed in 2022, identifies three directions for the completeness of the reforms, including "innovation and digitalization." The implementation of the reforms is planned in 2 stages:

- 1) Stage 1: "Institutional and functional modernization," 2023-2025.
- 2) Stage 2: "Systemic transformation", 2026-2030. The most important task is a systemic transformation in all strategic directions and establishing a digital society.

Within the framework of the presented reforms, we see a direct reference to local self-government bodies only once, with the inclusion of "Decentralization of Powers" in the strategic guidelines, envisaging their distribution to the greatest extent possible from the upper level of executive power to the horizontal plane of management and local self-government bodies, based on the principles of maximum proximity to beneficiaries and cost-effectiveness. Also, the lack of autonomy of communities in the three-tier system of governance for various reasons, limited delegation of powers, and inadequate level of resource capabilities and capabilities to ensure effective management and community development are noted.

Discussions on decentralization are still in the current stages. However, the approach adopted by

the Government includes numerous digitalization perspectives that will be directly related to the local self-government system, from changing electronic systems to solving problems of residents' participation [3].

The Roadmap also stipulates the perspective of changing the role of regional administrations. Territorial administration reforms imply a balance of communication between state and community structures and a change in the role of regional administrations as advisory teams.

The planned changes are presented in 2024, 2027, and 2030.

A final report on the Strategy is planned for 2030. It will provide a comprehensive assessment of the results and develop a strategy for the next decade of reforms.

The results of the presented Roadmap have not been published, so it is not easy to assess the progress at this stage. However, surveys with community workers indicate the slow pace of the planned reforms. The final result of the expected reforms suggests the importance of information technologies, including developing methods for encouraging users of public electronic services.

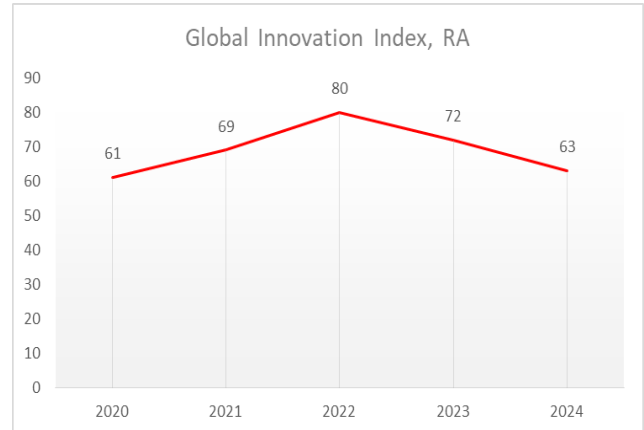
The need for digital transformation in local self-government bodies is challenging and risky, considering various factors, from financial resources to unprepared employees, to coordinate these activities [10].

The promotion of large-scale digitalization processes also conditions the development of the Armenian economy. Numerous studies have been conducted to assess the impact of digitalization on the economy. Research by the International Monetary Fund shows that the increase in the overall digitalization of the economy can contribute to the growth of the efficiency of the digital economy, which, however, will become noticeable in terms of productivity growth if these technologies are included in business processes (H. Sargsyan et al., 2023). The global innovation index in the Republic of Armenia changes dramatically from year to year: in 2020 - 61st place; in 2021 - 69th; in 2022 - 80th; in 2023 - 72nd; in 2024 - 63rd. The studies are carried out considering the indicators of 130 countries [6].

The EU has actively supported Armenia's digitalization and e-government sector since 2002. The latest cooperation includes the "EU to Armenia: Support to e-Government" program (2017-2020), which aimed at developing a "State Interoperability Platform" for public services and implementing the "Single Window" system [13]. The "Single Window" system was initially created to regulate effective interaction in the RA customs system. However, in parallel with the improvement of the

system, it also became a new and practical toolkit for issuing license permits, which should contribute to the provision of services to the public by local self-government bodies and state government bodies of the RA.

Chart 1



In 2021, the Digital Transformation Strategy of Armenia, the Strategy Action Plan, and performance indicators were approved. The "Information Systems Agency of Armenia" Foundation was established. Its main task is to contribute to the development of an electronic digital society and economy and the provision of digital services.

The World Bank has developed a digital technology diffusion index, the indicator of which integrates the digitization processes in three areas:

- the spread of digital technologies among the population,
- the level of digitization of state processes,
- the level of digitization of business processes.

As we can see, even in such large-scale reports, the digitization indicators of local self-government bodies are not taken into account since they should directly derive from the digitization indicators of the three above-mentioned areas.

The World Bank's 2024 report "Adoption of Digital Technologies by Armenian Firms" addresses the low level of internet services in rural communities, which can directly affect the expansion of society's problems using electronic systems in communities [10].

The UN's 2024 "E-Governance" report describes Armenia as a country striving for e-governance with efficient, transparent, accessible ecosystems through digital technologies.

In 2024, the UN published the e-Government Development Index (EGDI), according to which Armenia improved its position by 16 points compared to previous years, from 0.7364 to 0.8422. Armenia ranks second among landlocked countries in this indicator, second only to Kazakhstan [5].

For comparison, Azerbaijan's E-Government Index is 0.7607.

The E-Government Index is based on the following indicators:

- Online services: 0.7922.

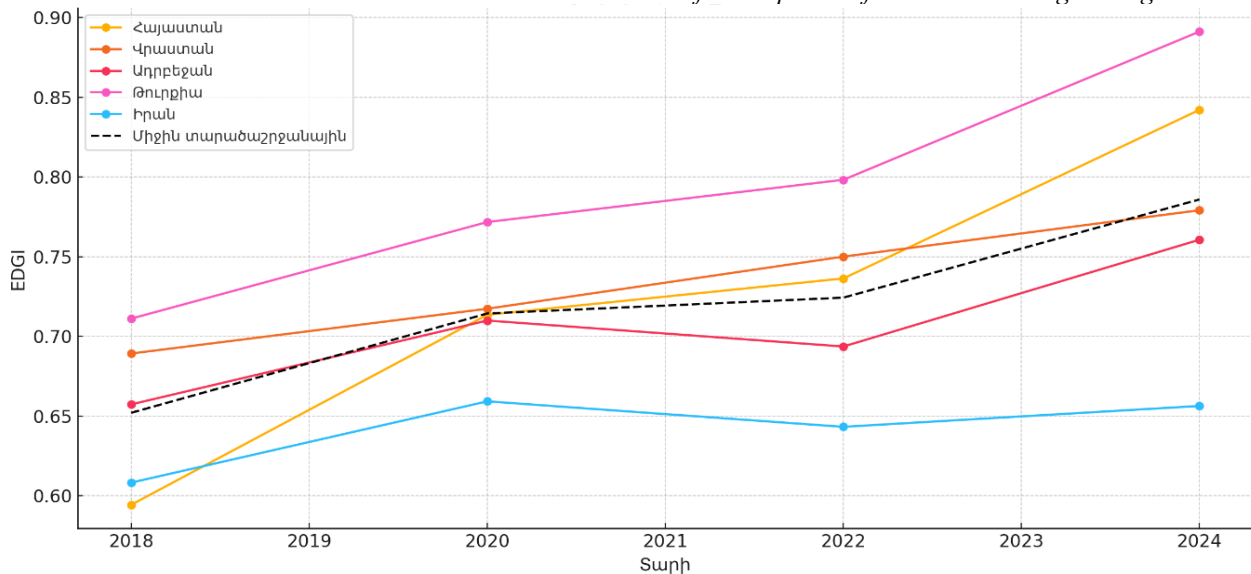
- Human capital: 0.8561.

- Telecommunications infrastructure: 0.8782.

Table 1. The comparative picture of the indicators of neighboring countries is as follows:

Year	Armenia	Georgia	Azerbaijan	Turkey	Iran
2018	0.5944	0.6893	0.6574	0.7112	0.6083
2020	0.7136	0.7174	0.7100	0.7718	0.6593
2022	0.7364	0.7501	0.6937	0.7983	0.6433
2024	0.8422	0.7792	0.7607	0.8913	0.6564

Chart 2. EDGI indicators of the Republic of Armenia and neighboring countries



The study is conducted to assess progress in ICT accessibility for all, and is seen as a tool at the government's disposal. It can significantly contribute to the state's policies promoting human development if used effectively.

CONCLUSIONS

The digital transformation of local self-government bodies complements e-governance approaches. Despite the positive developments observed and the support of international partners, the process remains transitional. The complete implementation of digitalization processes is restricted by management, human resources, and technological barriers.

The main obstacles are:

- Lack of e-governance legislation.
- Limited inclusion of local government digitalization programs in the strategic documents of the Republic of Armenia.
 - Inconvenient structure of existing electronic systems for users.
 - The problem of training departments and employees responsible for digital communication.
 - Low level of digital literacy of the population.

Along with the presented obstacles, there are vast opportunities to direct grant programs of international partners to improve the digital solutions of local government bodies in the Republic of Armenia.

- The inclusion of projects for digitalizing the local government system in the Republic of Armenia's strategic documents.
 - Training of local government employees.
 - Training courses on digital literacy of the population and mastery of existing digital tools.
 - Dissemination of information about digital tools available to the population.

Such solutions will be possible only through modern project management methods, precise strategy planning for digitalizing the local government system, and involvement from donor organizations.

The steps taken to address the presented obstacles can contribute to the widespread use of digital technologies in the Republic of Armenia's local self-government bodies, which can strengthen governing body-community resident relations and increase trust in these bodies.

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