Prospects of electronic governance implementation in Georgia

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Abstract.
E-government refers to the information and communication technologies (ICT) used to improve the efficiency, accessibility, transparency, and accountability of government services and processes. It includes a wide range of initiatives aimed at digitizing government operations and interactions with citizens, businesses, and other government entities. E-Government is, to some extent, more applied than theoretical. It is influenced by the tasks facing the public administration at this or that stage of development. Initially, the interest of researchers in this field was related to the automation of public administration, then to the provision of electronic services by the state, and finally to organizational changes in governance. The paper discusses opinions about electronic government introduction, development, future perspectives, and a theoretical and practical analysis of current innovations in this field in Georgia and some foreign countries.

Keywords:
electronic governance
government agency
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**Introduction.** The widespread use of the Internet in the late 20th century laid the foundation for e-government, which is delivered to society through electronic communication and data exchange platforms. In Georgia, as early as the 1990s, government agencies began introducing e-government experiments, for example, creating websites and providing information and services to citizens, businesses, and others. Later, the transformation to transactional services began: with the development of Internet technology, government agencies began offering transactional services online, allowing citizens to contact government agencies, fill out forms, make payments, and receive services electronically.

**Aim of research.** The paper's research purpose is to analyze the implementation/development of e-government, existing perspectives, and challenges in Georgia.

**Methodology.** During the research process, significant findings reflecting the current reality were found and evaluated; in the article, successful models of e-government development in foreign countries are discussed; Relevant scientific economic and legal literature, new legal regulations are analyzed, and recommendations for further development of e-government are presented.

**Literature review.** The theoretical base of the research is represented by works of Georgian and foreign authors and publications on the development and problems of electronic governance in scientific journals and the Internet. The data from various international and local research organizations are used.

In the modern world, information and communication technology use is one of the main means of fundamental modernization of public administration, the country's economy, and society. E-government was first introduced in the United States of America. The subsequent widespread distribution of Internet technologies was followed by the introduction of e-government in one form or another in almost all countries around the world [1].

We can consider e-government as one of the important tools for world community development. It is a constituent part of the information society of the 21st century. Today exist several definitions of e-government: digital government,
online government, internet government, and others. No matter what term we call this new and innovative means of state governance, it is a fact that it is actively taking its place as an important mechanism of state administration on a global scale. It is noteworthy that the practical implementation and development of e-government is carried out in four main directions:

- G2C (Government-to-Citizen);
- G2B (Government-to-Business);
- G2G (Government-to-Government);
- G2E (Government-to-Employees).

The listed directions of e-government development include many sub-elements: online publication of public information, public surveys, active two-way interaction between state structures and users, various online services existence, electronic voting format, and others. [2]

We would also like to point out that there is e-governance that is not based on internet usage, like electronic tools and services such as text messages, biometric passports and ID cards, telephone services, and others.

It is important to use information and communication technologies in public administrations, along with organizational changes and new skills for public services and democratic process improvement. Researchers identify four main areas that e-government refers to – 1) conceptualization of e-government, 2) government's role in technology diffusion, 3) public e-services, 4) e-democracy, and citizen participation. [3]

The use of information technologies in the state sector has become inevitable. Firstly, it affected internal administrative processes and data processing but later included interaction with the public. While talking about the benefits of using technologies in public management in theory, the following are highlighted: 1) Production of state registers is much more convenient and efficient with the help of computer technologies; 2) they note the financial benefits of the transition to digital proceedings for the state administration. For example, in the USA, by the beginning of the 2000s, the state savings achieved by the technologies introduced in the USA amounted to 50%; 3) Digital technologies
make information exchange processes in public administration more effective; 4) Information technologies have the potential to transform public administration organizational processes; 5) E-governance has presented public administration as an effective service provider; 6) Consequently with electronic governance, it is possible to improve democratic processes; 7) The context of "good governance" is allocated by international organizations, which are the so-called They promote governance reform projects in developing countries.[4]

As a result of the analysis carried out by the researchers in the study of the models of the stages of e-government, it was found that about twenty different models were combined, and finally, the formation of 4 main stages: representation, interaction, transaction, and integration. [5]

The introduction of electronic government components in the EU countries has taken the form of systematic legislative initiatives since the second half of the 90s. After the expansion of the 2000s, in addition to the individual programs of the EU countries, the so-called Common framework strategies or policies analyze the current practices of countries and outline common European indicators of the results to be achieved. Such indicators refer to the development of infrastructure, the frequency of Internet use, the digital skills of citizens, as well as the practice of using e-government and e-commerce.

Today, effective state governance is a worldwide problem. Transparency of state management, systematic reporting of proceedings, and fair and state-of-the-art technology-based service to people are significant factors that ensure a high-quality and effective state management system and society's dynamic socio-economic and political development.

For e-government systems development in developing countries, it is especially significant to share the best practices of developed countries.

In the Republic of Korea, the first steps towards the technology introduction in the administration were made in the second half of the 90s. It is significant that the success of e-government in Korea is linked to the government's prioritization of this field, deliberate planning, and
enforcement control. Since 2001, the initial phase of e-government development in South Korea has been allocated with three government priorities: modernization of the full range of government services for citizens and businesses; improvement of the efficiency of public administration; E-Government Infrastructure Development: The second phase covered the years 2003-2008. The relevant priority directions were innovation in the way the government functions; innovation in civil services; innovation in the management of information resources; and Reforming the legal system. The third phase covered the years 2008-2012 and included 5 directions: an intelligent administrative system that ensures performance; the creation of convenient public services for citizens; the realization of a digital democratic administration that communicates with the citizens; and Strengthening the base of sustainable development of information. The priorities of the recent strategy (2013) are Government 3.0 as cheap but high-quality services for the happiness of citizens. Government 3.0 personalizes public services and tailors them to individual needs, supports entrepreneurship and businesses, improves more efficient and effective access to public information and services, and adapts citizen services through new technologies. To illustrate the success, they note that currently more than 3,000 electronic services are available to Korean citizens, and more than 1,200 government electronic document types are issued.

Estonia is often referred to as a global leader in e-government. It offers a wide range of digital services through its "e-Estonia" initiative. The country's digital identity card system allows citizens to securely access government services online. Estonia's e-residency program allows non-residents to set up and run a business online, regardless of location.

Singapore boasts one of the most advanced e-government systems in the world, known as 'Smart Nation Singapore.' The "SingPass" digital identification system allows citizens to securely access more than 400 e-government services. Singapore's eCitizen portal offers a wide range of services, including obtaining permits, paying taxes, and accessing
health information.

The United Kingdom offers various e-government services through its "Gov.uk" portal, which serves as a central platform for accessing government information and services. Services include applying for passports, renewing driver's licenses, paying taxes, and accessing health information.

The UK has also implemented initiatives such as 'GovTech' to encourage innovation in public service delivery through technology.

The US government provides a wide range of e-government services through its "USA.gov" portal and agency-specific websites.

Citizens can access services such as applying for social security benefits, renewing passports, filing taxes, and accessing health care resources. Initiatives such as the Digital Governance Strategy aim to improve the accessibility and usability of government services through digital channels.

United Arab Emirates (UAE): The UAE has made significant investments in e-government to enhance service delivery and promote efficiency. The UAE Smart Government portal provides citizens and residents access to various government services, including visa applications, utility bills, and business registration. Initiatives such as "UAE Vision 2021" aim to transform government services through digital innovation and technology adoption.

These examples highlight the diversity of e-government initiatives around the world and illustrate how countries are using technology to improve governance, enhance citizen engagement, and improve service delivery.

Discussion/Results. Georgia pays special attention to digital and innovative technologies introduction and use in the public sector. In the country, new initiatives of specialized agencies - "Development-strengthening of the LSI at the institutional level" started in 2004. The Law "On Legal Entity of Public Law" was adopted in 1999 with the first edition. As a result of further changes, since 2005, public law legal entities have been created in the leading ministries. According to the law, LSI is an organization separated from the state government bodies, which
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independently carries out political, state, social, educational, cultural, and other public activities under the control of the state. It can carry out entrepreneurial activities in the LLP along with other activities. In particular, entrepreneurial activity of an auxiliary nature in the case provided for by its statutes (statutes). Among the LSIs with the mandate of technological development, it is worth noting the creation of the National Public Registry Agency in 2004 and the establishment of the Civil Registry Agency in 2006. Also, the House of Justice project is the production of registers - a collection of information about citizens and legal entities and their management, which is included in the main tasks of public administration.

In the area of e-government, integration, and interoperability began: government agencies worked to integrate various systems and databases to provide seamless services across departments and agencies. Services have slowly begun to expand: e-government initiatives have expanded to include a wider range of services, including e-procurement, e-taxation, online licensing, and permit applications. This expansion was aimed at streamlining bureaucratic processes and improving service delivery. Citizen engagement and participation were significant: Government agencies increasingly emphasized citizen engagement and participation through e-government platforms such as online forums, social media channels, and feedback mechanisms. E-governance has also ensured transparency, as services that were previously closed have become accessible and public to the public. Later, mobile devices were improved, and various websites and applications became available through mobile, which further simplified the e-government development process. The issue of cyber security and data privacy protection has also become important. Therefore, discussion of these issues has begun at the legislative level. Amendments were made to various laws and normative acts.

Future trends are significant: the evolution of e-government continues with the adoption of emerging technologies such as artificial intelligence, the so-called blockchain [6], and big data analytics. These technologies hold the potential to further increase government service
efficiency and personalized delivery. Overall, the development of e-government reflects a gradual shift towards more digital, connected, and citizen-centric government operations, focusing on the use of technology to improve public service delivery and democratic governance.

There are positive trends in the development of e-government in Georgia. Modern information (IT) technologies are put into practice, and significant electronic projects are planned. Since 2007, the governmental commission for promoting the development of e-governance has been functioning, and it is involved in the e-governance introducing process in Georgia. [7]

Electronic services were also introduced in the system of the Ministry of Justice of Georgia. After the new initiative implementation, it became possible to notarize any type of consent, statement, power of attorney, and power of attorney online using the Skype program. On the website of the Chamber of Notaries (www.notary.ge), it is possible to get legal advice. The electronic database integrated with the regional offices of the National Public Registry Agency has increased the quality of electronic access of the population to various public information. Electronic registers of debtors and enforcement proceedings of the National Bureau of Enforcement (www.nbe.gov.ge) and others are functioning.

More than 730 electronic services are available through the My.gov.ge portal. In order to make the portal more accessible and adapted for people with disabilities, the Agency for Digital Governance of the State Government has started work on updating the design and functionality of the website, as well as creating a mobile application for the portal.

On the basis of decree #698 of the President of Georgia dated November 7, 2011, an electronic governance system was introduced in treasury (budgetary) institutions, in particular, the standards of the automated human resource management and case management system. [8]

The drafts of the e-government strategy and its action plan were first created for 2014-2018 with the help of European experts and under the guidance of the Data Exchange Agency of the Ministry of Justice, which was subsequently
Important news in Georgia was the adoption of the Law of Georgia on information security protection, the purpose of which is to promote effective implementation of information security protection to establish the rights and duties of public and private sectors in the field of information security protection, as well as to determine the state control mechanisms for the implementation of information security policy. On the basis of the mentioned law, the Digital Governance Agency was created.

On the basis of the order #7 of the Chairman of the Digital Governance Agency of LSU dated December 14, 2021 [9], the authority of the Digital Governance Agency was determined to impose administrative responsibility on persons who committed administrative offenses in accordance with the Law of Georgia "On Information Security" [10]. An interesting news is the creation of a self-service space in the pilot mode at the Central House of Justice in Tbilisi with the support of digital governance in March of this year, which will further simplify the process of using digital technologies by clients.[11]

According to Resolution No. 603 of the Government of Georgia of December 29, 2022, "On the Creation of the Government Commission for Digital Governance and Approval of the Statute," the Coordination Government Commission for Digital Governance was established in order to establish an effective and efficient institutional model, the purpose of which is the implementation of digital governance in the country, promotion of development and inter-agency coordination.

The Georgia Public Administration Reform Strategy, which is a kind of umbrella document for the provision of services for the "Georgian Digital Governance Strategy" (2024-2029) and the "State Services Development Strategy" (2022-2025), creates an appropriate basis for the transformation of the provision of electronic services in Georgia. That, in turn, establishes uniform guidelines for service delivery in the country and thus promotes uniform practices. [12]

Georgia's increasing dependence on ICT contributes not only to the involvement of the government and society in
modern life but also to the country's economic growth. At the same time, Georgia offers interested parties an attractive environment for investing in the ICT field. It is noteworthy that within the framework of the EU4Digital project – "Supporting the digital economy and society in the countries of the Eastern Partnership," together with the member countries of the Eastern Partnership, work is currently underway to study the best practices in the world in terms of data management and, based on them, to develop a data management strategy tailored to the specifics of the region.

In order to evaluate the quality and effectiveness of e-government, the United Nations produces a comparative index of e-government of countries every two years according to three main indicators: information infrastructure, telecommunications, and human capital development. Despite some conditionality, the e-Government Index reflects well the dynamics of countries' efforts to introduce innovations in public administration and involve citizens in the e-services process. [12]

According to the 2020 assessment, Georgia’s e-government score stands at 0.72. It is at 65th place among 193 countries. In 2018, Georgia was ranked 60th with a score of 0.69. Therefore, Georgia has improved its score by 0.03 points in 2020. However, it dropped in the ranking by five (see Fig. #1 and Table #1). That can be attributed to a higher rate of development shown by other countries in comparison to Georgia.

Figure 1
Georgia's Results over Past Years
In terms of e-participation, in 2018, Georgia scored 0.62 points and ranked 87th. According to 2020 data, the figure has increased to 0.64, and the country's position in the global ranking has risen from 87th to 80th place.

Table 1

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<td>Georgia’s position in the E-Government ranking</td>
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<tr>
<td>Georgia’s position in the E-Participation ranking</td>
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As for the top ten countries in the rankings, the leaders in terms of E-Government are Denmark (97.5 points), Republic of Korea (0.96 points), Estonia (0.95 points), Finland (0.94.5 points), Australia (0.94 points), Sweden (0.94 points), United Kingdom (0.93.5 points), New Zealand (0.93 points), United States (0.93), and Netherlands (0.92). It is noteworthy that Estonia held the 16th place according to the assessment in 2018. The report shows that Estonia is among the countries that made the most significant improvements (approximately 0.1 points) and consequently ended up in the top three.

According to the 2022 United Nations E-Government Survey data, Georgia has advanced in the ranking compared to 2020 and occupies the 60th place. According to the E-Participation Index, which is evaluated according to three components, e-information, e-consultation, and e-decision-making, Georgia's score has decreased by 0.09 points in 2022 compared to 2020. Although, the position has improved from 80th to 72nd place. According to the GovTech Readiness Index published by the World Bank in 2019, which includes opportunities for modernization of the public sector, as of 2022, Georgia is in Group B, which means that the government is making significant GovTech investments and good practices in the majority of priority areas. [12]

Conclusion and recommendations. Thus, as evidenced by statistical data, in Georgia, despite the implemented
reforms, the results of e-governance are insufficient. Our country has a strong position in terms of human resources but there are still problems in terms of the introduction and use of the latest technologies, services to citizens, and their involvement in the governance process. It is necessary to make significant intellectual and financial investments so that the country can approach e-governance Western standards and fully implement them. However, the successful projects implemented in the field of e-government must be mentioned, namely: the biometric passport project; electronic auction; electronic notary; Online registration systems for entrants, schoolchildren, and kindergarteners; State procurement; school computer exams; introduction of the electronic journal in schools; case management systems in the penitentiary and judicial system; electronic systems of the National Bank; Implementation of My.gov.ge, roi.gov.ge, data.gov.ge, tfs.ge platforms and others.

We believe that there are many more innovations to be introduced in terms of improving e-governance because the development of technologies and raising public awareness provide the opportunity for this. We think:

- Implementation of e-governance in Georgia is proceeding chaotically. Administrative bodies sometimes develop electronic services in an uncoordinated and inconsistent manner, which ultimately leads to the lack of technological interoperability, irrational spending of public resources, and risks to the quality and competitiveness of the obtained results;
- There are many innovations to be introduced in the healthcare system. For example, the implementation of the electronic prescription system has been postponed several times;
- The electronic system for visiting museums and sights in Georgia and foreign countries should be improved so that it is possible to book a sight from any country in the world, which avoids queues and saves tourists' time;
- The My.gov.ge platform, which was introduced in Georgia in 2012, does not work at full capacity because the population is still not fully informed;
- Although it is possible to participate in the public or local decision-making process via the Internet, the website
is quite sparse in information. It does not allow interaction between citizens and the government, such as receiving answers to questions, suggestions, and opinions sent electronically in a timely manner or at all.

Finally, it can be said that despite the challenges mentioned above, the process of perfecting e-governance is actively underway in Georgia. In the near future, by promoting the development of relevant policies, it will be possible to strengthen the role of Georgia as a technologically developed, innovative country and regional leader in the field of digital governance and to develop artificial intelligence-based public Implementation of Services.

References: