Towards Sustainable Web Platforms: Post-pandemic Reflections on E-government in Romania

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Abstract

The Covid-19 pandemic has spurred the acceleration of the digital transition by bringing digital ethics to the forefront to extend cybersecurity to the privacy of consumers' personal information and to provide truthfulness to digital content. At the same time, when properly used, the Internet has a positive effect on consumers, improving their quality of life. New consumers are more receptive, selective, and interested in new technologies. They are quickly informed about the offer of products / services on the Internet, and organizations provide them with a suitable process, simplified by diversity and accessibility. The aim of this paper is to explore whether the Covid-19 pandemic has accelerated or not the transformation towards electronic government (e-government) in Romania. Thus, based on a descriptive desk research, the paper briefly puts forward the general landscape of e-government in Romania between the period 2020-2022, focusing on particular features and strategies. This study might be useful to all parties involved in the e-government process.

Keywords

Covid-19 pandemic; e-government; digital citizen behavior; sustainable web platforms.

Introduction

The proliferation of the information systems linked to the data administration and delivering services for more effective activities has led to a technical breakthrough in the last decades. Interconnections and interactions between individuals and other social, economic, or administrative entities, have evolved as a result of this technical breakthrough.

While the private sector has progressed more quickly, the public sector has been slower, but has made some notable achievements. In such a context, electronic government (e-government) can be viewed as a reform of a state's complete administrative structure, which entails upgrading operations using contemporary modern technologies. The need for such a change is prompted by the need to streamline some bureaucratic processes while eliminating others completely. As a result, e-government encompasses all operations carried out by the government using electronic systems, such as the storage of citizens' information, tax and fee payments, public announcements and public procurement (Stoica and Ghilic-Micu, 2020).

The Covid-19 disruption demonstrates that strategy, in general, and behavioral action plans, in particular, come with a lack of solid frameworks for coping with uncertainty that go beyond typical patterns of risky decision making in a variety of ways (Foss, 2020). E-government should make information available online and enable interactive access for citizens with digital abilities when conducting transactions with public authorities (Urs, 2017).

The purpose of this article is to present, from a descriptive perspective how e-government has evolved in Romania during the Covid-19 pandemic. Romania is strongly acknowledged for its high bureaucratic character this being one important reason in many Romanians' decisions to migrate to more developed Western countries (Petrescu, Bâc and Zgură, 2011; Grosu and Constantin, 2013; Grosu and Dinu, 2016). The difficulty of building e-government in the Romanian public sector comprises several agreements that necessitate a coordinated approach. The elements that determine the development of e-government in

Romania are related to the institutions that make available the transformation to digital public services. The main purpose of this article is to illustrate the current economic realities and how various governments have interpreted the use of technology during the pandemic. In such a context, the present paper is structured into three main parts, besides the introduction and the conclusions sections. The next section focuses on conceptual boundaries in the area of 'e-government', while the second one briefly outlines the research methodology. The third section of the paper presents the main results of the carried-out research.

1. Research background on e-government

Caves (2004) states that e-government is the delivery of services to residents and other members of the public in a country or region via technological communications equipment such as computers and the Internet. E-government creates new opportunities for citizens to interact with government in a more direct and convenient manner, as well as for government to give services directly to citizens. In the same line, according to the World Bank Group (2018), e-government refers to government agencies that use information technology to transform relationships with organizations, citizens and other government agencies. These technologies may be utilized to expand citizen access to government services, facilitate interactions with the business environment, enable citizens through access to information, or develop government administration. Moreover, from an integrative approach, figure no. 1 outlines a model of the focal dimensions of e-government on three digital levels:

- improving government processes with e-administration;

- connecting individuals with e-citizens and e-services

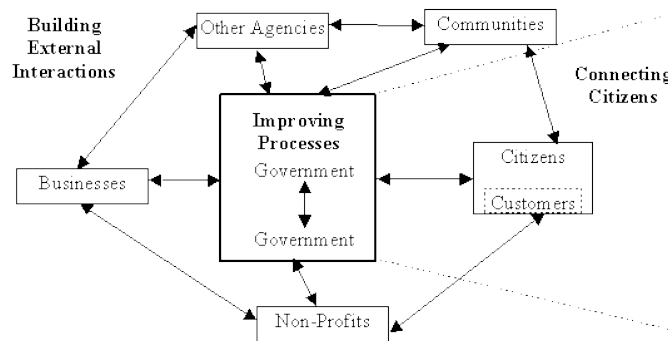- building external interactions with e-society.

Figure no. 1. Holistic model for e-government initiative

Source: Institute for Development Policy and Management, 2008

The phrase 'e-government' has a wide range of meanings and interpretations since 2000 when the digital era became the pillar of shaping and modernizing the new society. The Organization of American States (OAS) interprets e-government as the digitalization of public procedures and processes to ensure greater credibility, capabilities and interaction between the government and the citizens. According to the United Nations (UN), e-government defines the use of technology instruments by entities such as governments to provide digital content and services to individuals. On the other hand, the European Union (EU) correlates it with the integration of technology in public administration to reform public services, democratic processes, and policy support.

Furthermore, in OECD's vision, the function of public sector and its interface with the people are projected to improve as a result of e-government. The term 'e-government' refers to how public authorities benefit from the use of technology to perform a wide range of functions. The Internet's and associated technologies' networking capabilities, in particular, have the potential to revolutionize government structures and operations. The positive aspect is that automatization of public services provides several advantages to help e-government achieve its goals. The focus on e-government has been too often on information and communications technology (ICT) solutions rather than on user demand. Although this has been helpful for putting services online, it has resulted in a profusion of incompatible, confusing, and overlapping websites, portals, and electronic services related to the interaction with digital citizens.

2. Research methodology

The present paper is based on desk research, mainly consisting of a bibliographic study, focusing on secondary data analysis on e-government. The research implied the development of a descriptive analysis centered on the inter-connections between e-government and digital citizen behavior in the context of the Covid-19 pandemic in Romania using the concept of 'sustainable web platforms' as a reference. The bibliographic study, mainly developed with a particular focus on secondary data analysis, was performed by consulting national and international reports developed by prestigious, trustworthy institutions. The main results of the analysis are presented in the following section.

3. Analysis of e-government in Romania in relation to the digital citizen behavior during the Covid-19 pandemic – main results

The 'National Strategy on the Digital Agenda for Romania' is focused on the ICT sector and aims to contribute to Romania's economic growth and competitiveness through direct action for digitalization, as well as indirect actions such as increasing efficiency and reducing public sector costs, improving private sector productivity by lowering administrative barriers to the state, and accelerating the competitiveness of Romania's ICT. The Strategy was created using the 'Digital Agenda for Europe' as a point of reference for defining an overview of how to strengthen the digital economy from 2014 to 2020.

The most notable e-government initiative in Romania includes two web platforms as part of digitalizing the fiscal dimension: *ghiseul.ro* and *anaf.ro*. These solutions incorporate all areas of the public fiscal system in relation to individuals and businesses. *Ghiseul.ro* is devoted to physical persons (covering registered sole traders) and accepts online payment of fees and taxes, towards both local and national authorities and fiscal administration.

An analysis of the elements of the digital consumer behavior in Romania from 2016 revealed that the habit of paying cash is striking in Romania, because the value of withdrawals from ATMs is growing (Onete, Teodorescu and Vasile, 2016). The major change occurred exactly after 2016 in regard to online payments for taxes and public services, when the number of individuals using the online tax payment platform *ghiseul.ro* had an accelerated growth. As outlined in Figure no. 2, this platform has been the start of the Romanian e-government initiative towards sustainable web platforms, as in the period 2011-2020 there has been a significant increase in new members, reaching 165,882 new users in 2020 (pandemic year).
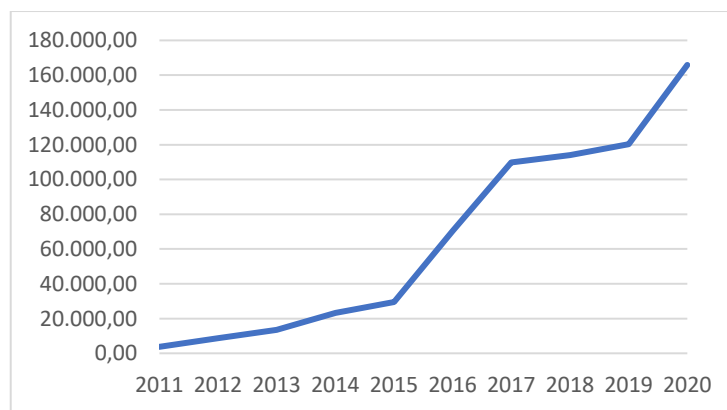

Figure no. 2. The number of new users of the *ghiseul.ro* platform, in the period 2011-2020

Source: General Secretariat of the Government - Policy and Priorities Coordination Directorate, 2020

Although there has been a great improvement in Romanian e-government by implementing new tools related to web platforms, concerning communication and interaction between citizens and public authorities using the Internet, there is still a lot of work to do as the next indicator reflects poor values, especially when compared to the EU average. Figure no. 3 reflects that, in correlation with the EU average, the percentage of people, by gender, using the Internet to interact with public authorities in Romania is reduced. Starting with 2020 (the outbreak of the Covid-19 pandemic), due to several restrictions and measures imposed by the government to limit the spread of the virus, the Internet became the principal instrument to carry out activities in all domains, leading to important changes in both businesses and consumer behavior (Stanciu and Rîndașu, 2021). However, in the context of digital interaction with public authorities in Romania, neither women nor men show a significant percentage increase in comparison with the EU mean.
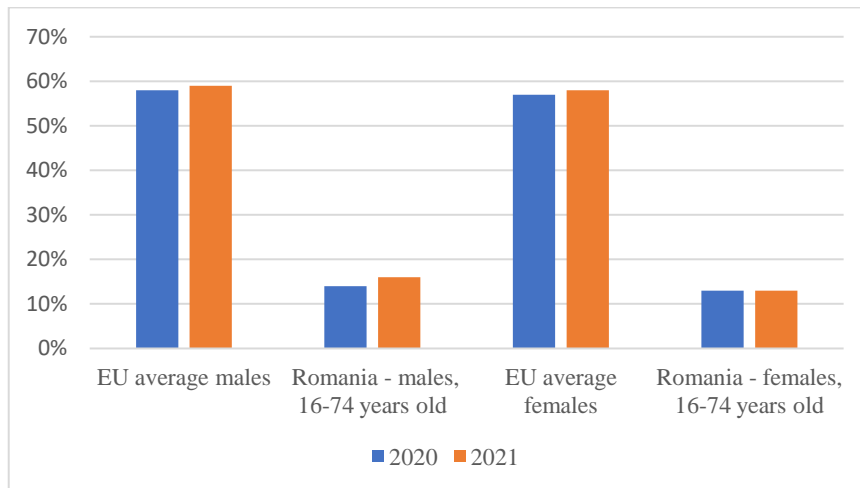
Figure no. 3. Percentage of individuals, by gender, using the Internet for interacting with public authorities in Romania

Source: Eurostat, 2021

Due to the length and severity of the Covid-19 pandemic, public health authorities, states, and even international organizations were forced to change their operating procedures. Romania was only vaguely aware of the threat associated to Covid-19 in the first two months of 2020. In February, various procedures were implemented to monitor newcomers from places already experiencing a health crisis, as reported in the external news section. The outbreak of the pandemic in March prompted a lockdown, and the topic of the pandemic dominated all forms of communication (Cernicova-Buca and Palea, 2021). In a study conducted in 2020, around half of respondents (52%) were not satisfied with the measures or actions taken; specifically, 38% were not very satisfied and 14% were not at all satisfied (European Parliament, 2020).

The most important indicator when evaluating the progress of e-government implementation is the public trust. OECD defines this as the legitimacy of public institutions and a functioning democratic system. Political participation and social cohesion are both components of the public trust. Trust in public institutions has been critical for governments' capacity to respond quickly and win citizen support throughout the Covid-19 pandemic. Studies have shown that in Romania public trust was severely destroyed during the pandemic and Romania approached its fourth wave without limits; a population that was barely vaccinated and a society that was profoundly divided (Dascalu et al., 2021). With reference to public trust, during the Covid-19 pandemic in Romania, results in Figure no. 4 show that the most credible public authority in Romania during the pandemic was the Army. In contrast, key public authorities like government or parliament suggest the most insignificant percentages in the hierarchy, conferring to citizens the impression of insecure and doubtful authorities.
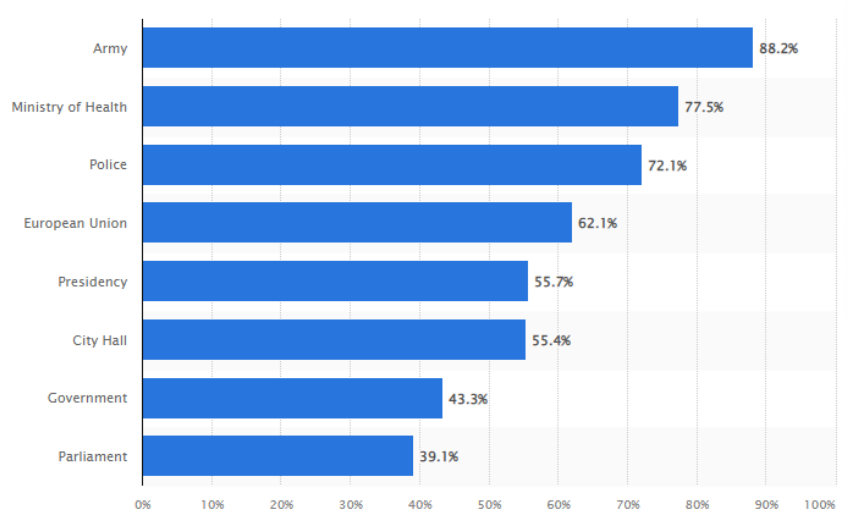

Figure no. 4. Level of trust in the institutions since the outbreak of Covid-19 in Romania

Source: Statista, 2022

Statistics show that Romania ranks as the last position of the 27 EU member states in the 2021 edition of the 'Digital Economy and Society Index' (DESI), an indicator that highlights the digital development of a nation in terms of broadband connectivity, human capital, the incorporation of digital technologies by businesses, and digital public services. Furthermore, Romania ranks also on last places for indicators defining e-government concept: pre-filled forms, e-government users, open data and digital public services for citizens and businesses (Figure no. 5). With the inconsistency regarding artificial intelligence, Romanian businesses do not fully cultivate digital technology (social media, electronic information sharing, big data and cloud). Romania ranks worst with regard to the key indicators like digital public services for individuals and enterprises, e-government users, and prefilled forms when it comes to digital public services. Projects aimed at meeting various digital priorities are included in the 'Romanian Government's National Investment and Economic Recovery Plan', which was presented in July 2020 and includes a financial allocation of EUR 100 million from EU and national funding for the years 2021-2030 (European Commission, 2021).
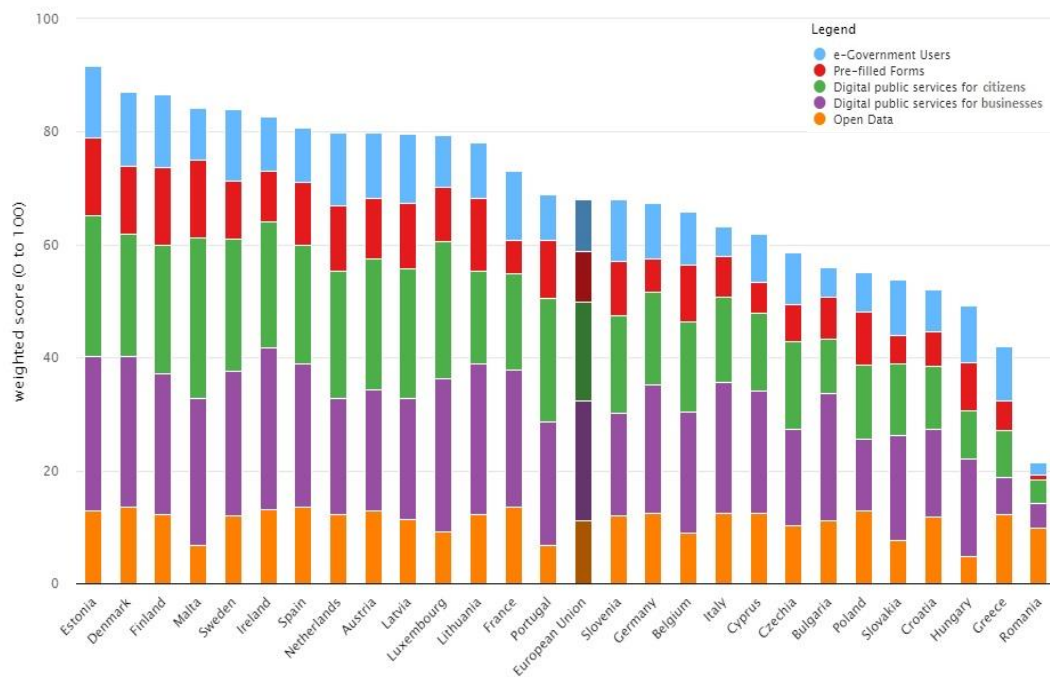

Figure no. 5. Indicators of e-government in the European Union countries

Source: European Commission, 2021

Conclusions

After analyzing the series of aspects covering e-government in Romania, it can be concluded that, to better digitalize the public sector, the e-government in Romania must be more centered on citizens rather than on developing tools. The issue with public institutions regarding e-government is not about implementing technology into their daily operations, but rather about convincing the public that this is the proper path to follow. In addition to this, the level of trust in the Romanian government during the Covid-19 pandemic was the biggest concern of citizens. Even if the digital infrastructure exists and Romania benefited from the European funds and directives by creating web platforms to reduce bureaucracy, the key element remains the digital interaction with citizens. People are typically reluctant to embrace change and accept it. It is also likely that some citizens are unaware of how to use digital tools. As a result, there is a need for proper civil training on digital public platforms. The digital interaction between public authorities and the citizens and the education about the use of public digital services constitute in a personal view the main factors towards sustainable web platforms for e-government. The decrease in bureaucracy in Romania was a great improvement by developing the *ghiseul.ro* platform in the public financial sector. A sustainable website is not only about creating energy-efficient platforms with improved site navigation to make it easy to find information or choosing a green web host, but to reach out to the public in a sustainable manner to enhance digital interaction.

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