

THE USE OF DIGITAL TECHNOLOGIES IN STREAMLINING PUBLIC ADMINISTRATION

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ABSTRACT

New digital technologies are now being implemented worldwide to create a better, more efficient public administration – the E-Government platform being the most advanced digital public service. This tool is extremely useful in streamlining public management and public administration, facilitating the dialogue between the government and the citizens. In the European Union, most states are either having an E-Government platform or are developing one. The United Kingdom owns the most efficient eGov program in the world – the Romanian E-Government platform is right the opposite, being almost the most inefficient from the EU. The Romanian government must adapt to the current requirements and comply with the European standards. There are many public services that must be available online, not just in physical form – national employment agencies, tax paying agencies, etc. The current paper intends to analyze the major impact that this kind of technology is having on public administration, also highlighting and comparing the most developed eGov systems in Europe with the Romanian E-Government portal, giving advice how the E-Government system should be improved in Romania.

KEYWORDS: *Cloud Services, Information and communications technology, ICT, Public Management Simplification.*

1. INTRODUCTION

Governments from all around the world believe they lose billions of dollars every year because of the evasion, fraud, non-compliance and non-collection. The way that tax is being collected, the way that the Government is in dialogue with the citizens haven't changed too much since last century. And there's a key connection between this and the lack of efficiency in public administration.

More than 70% of the Romanian population is now connected to the Internet and it is using it every day – still, the Government is not taking advantage of this aspect. By using all the tools that the Internet provides (e-mail, Cloud services, and online communication systems) we could build a new type of administration that is decentralized and therefore much more efficient.

The present article aims to analyze the huge potential that new technologies have on the development of the administration, also presenting the various aspects (positive or negative) of the digitization of public management.

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2. GENERAL FRAMEWORK

When we are talking about technologies that are being used in the development of public management and public administration, we are using the basis of the field of development called the Information and communications technology (or, abbreviated, ICT) which we define as the "integration of telecommunications (telephone lines and wireless signals), computers as well as necessary enterprise software, middleware, storage, and audio-visual systems, which enable users to access, store, transmit, and manipulate information, that stresses the role of unified communications" (as the Dictionary of Computing defines it). The key role of the system created on this basis is to make more effective the way that people communicate inside (or outside) an organization. Some of the notable technologies from this field are the Cloud systems and the e-mail, both being used both by Governmental agencies and private companies to ensure that communication inside their organization is fast, simple and secure. Those tools can be both used inside the organization, as well as outside of it – and from here we will discuss about the importance of digitalization of the administration among its dialogue with the population.

According to National Institute of Statistics of Romania, more than 70% of Romanians have access to Internet at a daily basis. Also, about 80% of the Romanian citizens that have ages between 16 and 74 have used the Internet at least once in the last three months.

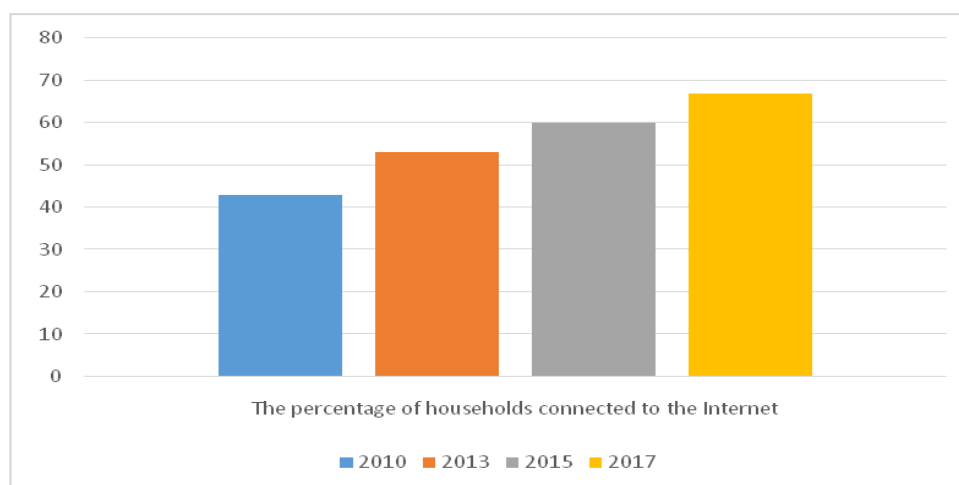


Figure 1. – Chart depicting the percentage of households connected to the Internet among the years in Romania (according to the National Institute of Statistics).

Source: authors

What can we deduce from here is that more and more people are connecting to the World Wide Web every year. More and more people are getting access to online tools that could connect them with the public administration.

Unfortunately, the Government does not take advantage of this situation. Most of the operations a citizen has to accomplish (like paying taxes, for example) require the citizen to use a physical office instead of a digital one. According to the European Commission (2015), Romania has an E-Government portal, but it is marked as one of the most inefficient in the European Union.

The E-Government could be a really useful tool in developing not only the public administration, but also the management required in leading the public administration – in other words, an efficient E-Government system would improve not just the relation between the citizen and the government, but would enhance the management process also. Public management is a "field of inquiry with a diverse scope" whose fundamental goal is to "advance management and policies so that government can function", according to Rabin, Hildreth and Miller (2007). The key role of management is to maximize efficiency and to develop hierarchically all the structures and substructures of the

government in the territory. The eGov service can also function and be used as a cloud computing to share data among the employers of the government to ensure that all tasks are done in minimal time. A cloud computing program is a program that we define as *pools of configurable computer system resources and higher-level services that can be rapidly provisioned with minimal management effort, often over the Internet*, according to Amazon Web Services. This service started to be used since 2006, but has gained generalized use in recent years. Massive amount of data can be shared instantly, creating premises for a faster, more advanced cooperation between governmental agencies from different fields. This type of technology is a managerial plus, improving and streamlining on all levels – helping in public management.

3. ABOUT E-GOVERNMENT

The E-Government (or eGov) is one of the most important digital service that a Government can provide –it is a very useful tool because it is a single place, a single online portal where citizens can carry out the main operations (payment of fees, requesting documents, etc.). Also, the citizens can get information from the portal on government initiatives and other public interest information.

According to Jeong (2007), there are multiple relations that establishes between the eGov and other entities: Citizens – Government (also known as C2G); Government – other governmental agencies (a.k.a. G2G); Government – Citizens (a.k.a. G2C); Government – Employees (a.k.a. G2E); Government – business/commerce (a.k.a. G2B)

The purpose of the eGov is to create a decentralized administration that puts both local and national administration in dialogue with the citizens – increasing efficiency and decreasing bureaucracy. As the 2015 report of the European Commission revealed, the eGov service in Romania is not efficient: the report showed that the administration is struggling with high levels of bureaucracy.

The specialist technologist Mauro D. Riossays in the paper "In search of a definition of Electronic Government": "Digital Government is a new way of organization and management of public affairs, introducing positive transformational processes in management and the structure itself of the organization chart, adding value to the procedures and services provided, all through the introduction and continued appropriation of information and communication technologies as a facilitator of these transformations".

As we can observe from the previous quote, the new and digital government can be used to reform the relation between the citizen and the administration, as well as the government itself. The main advantage of this internal enhancing is the increasing of efficiency – meaning that more tasks are being made in shorter time, which is crucial for an administration performance. In the table 1, you can see one of the most developed E-Government services in the world, according to the United Nations Survey from 2016, quoted by Bilal (2017).

Table 1. The countries with the most developed E-Government services in the world

RANK	CONTINENT	STATE
1	Europe	United Kingdom
2	Australia	Australia
3	Asia	Republic of Korea
4	Asia	Singapore
5	Europe	Finland
6	Europe	Sweden
7	Europe	Netherlands

Source: The United Nations Survey (2016) quoted by Bilal (2017).

In the following two sections, we will observe the advantages and the disadvantages of the E-Government.

3.1 Advantages of eGov

There are many more advantages than disadvantages when we talk about the E-Government. One of the most important advantage is that it facilitates the dialogue of the administration with the citizens; also, it offers a large portfolio of public services for its citizens in a cost-effective way, increasing the efficiency. Also, one of the key problems that is solved is the transparency one. The Romanian government faces this problem, according to the European Commission and its report from 2015, being almost the last among the national politics transparency. By implementing a more efficient E-Government way of communicating with its citizens, the government would solve this problem.

Other great advantage is that the paper-based system would be replaced with an electronic one, meaning less bureaucracy and creating advantages for small businesses (G2B). For example, in the Czech Republic, the electronic documents are equally valid as the paper ones. Also, by having e-procurement facilities permits smaller businesses to compete for Government contracts as well as a large private company.

Another advantage of the eGov service is that a lot of money is being saved. The E-Government service may be expensive to build and implement, but it is just a one-way investment since started, this service requires very little money to run on.

3.2 Disadvantages of eGov

On the other hand, there are a few disadvantages of a program of this kind. The main disadvantage is the lack of equality in public access to Internet and in this case to the eGov program. Although almost 70% of the Romanian people have access to internet (as we saw earlier), there are still people that are not connected to internet. There are also citizens that have low literacy levels or live on poverty line income that won't have the same access to the eGov services as the rest of the citizens – although creating free public internet access points for vulnerable groups would solve this problem, this internet station functioning both as a place for citizens to interact with the government and as an educational center.

Also, there are also logistical issues that must not be neglected: a large malfunction in this system could paralyze all administration for hours, even days. In the same way, the system would be threatened by various hackers and viruses. This problem could be also be solved by enhancing and upgrading security systems – there are private sites (for example, the search engine Google) that were never took down because of the good security, and the E-Governmental site could be guarded just as well.

4. CASE STUDY

We will focus on three well-developed E-Government systems from Europe: the British (ranked the 1st among e-government platforms in the world), the French (ranked 7th) and the Czech (rated as one of the best in European Union, bringing major innovations).

The Czech Republic adopted a policy document in 2008 called the *Strategy for the development of Information Society services*, or *Strategierozvojeslužeb pro 'informačnispolečnost* in Czech, adopting simple, but efficient concepts, defining eGov as a service to "satisfy the citizens' expectations" and "modernizing the public administration". The Czech government saw in the E-Government an opportunity to reform the public administration by reducing bureaucracy. It is very important to note that the Czech Republic is one of the few in the European Union that has a valid eGovernment act since 2009 (at that time, the Romanian E-Government was not even online). There are some principles that are obeyed in this *Act on Electronic Actions and Authorized Document Conversion* (known in Czech as ZAKON):

- Electronic documents are equally valid as paper documents are;
- The digitalization of paper documents is enabled;

- Electronic document exchange with and within the public administration must be as simple as possible and fully secured, by means of certified electronic signatures;
- Government to Business (G2B) and Government to Government (G2G) communications shall be stored on the dedicated Data Box set up by each legal person, be that private or public. More than a simple email box, a Data Box is an authenticated communication channel. Citizens may set up a Data Box if they wish so;
- The Public Information Portal, selected online information and electronic services from central and local government alike;
- All of the public services aimed at businesses have been made available online;
- The Czech POINTs network – a network of over 3700 offices (data available in August 2009) disseminated throughout the entire territory. They are the citizens' local contact points with the Public Administration. In these offices, citizens can request and obtain printouts of public register extracts;
- The Tax Portal for the Public.

Another efficient eGovernment system is the French one – being also the oldest, dating back to 1986, when Minitel terminals were used to create a network through telephone lines that both citizens and companies could use to access some public services and information remotely. Since then, many eGovernment programs has been implemented in France, this being a strategical point of development since 1998. In 2012, through the *Digital France* program, eGov has experienced a new impetus.

The most notable features of the French E-Government, according to the *General Review of Public Policies*, a public document, are the following:

- The taxation portal which enables the filing of personal income and corporate returns and the online payment of taxes;
- The country-wide eProcurement platform Marchés publics and, since 1 January 2010, the related legal right for contracting authorities to require bidders to submit their applications and tenders by electronic means only;
- The electronic social insurance card Vitale;
- The possibility to notify online a change of address to several public authorities at once.

The Ministry for the Budget, Public Accounts and Civil Service is responsible for steering the eGovernment policy. It shares this remit with the Secretary of State for the Development of the Digital Economy and the Council for the Modernisation of Public Policies who respectively hold political responsibility for the aforementioned Digital France 2012 plan and the General Review of Public Policies.

We'll be taking a closer look at United Kingdom's eGov platform that is ranked the first according to the United Nations Survey from 2016. The UK government constantly pushed forward for eGov innovations, becoming a model for the whole world because of its modern and efficient e-Government platform.

According to gov.uk, the UK government saved more than 1.7 billion pounds since the launch of the eGov by increasing efficiency. The site allow users to get verified information from the government, to see everything related to money and taxes as a citizen, to find a job and even to renew a passport. There are many services available on the website that features the new HTML5 technology – bonding the citizens of the United Kingdom to 25 Ministerial Departments and more than 385 other governmental agencies.

The citizens are having all the services that the state provides at their fingertips: benefits, births, deaths, marriages and care, business and self-employed, childcare and parenting, citizenship and living in the UK, crime, justice and the law, a section for disabled people, driving and transport, education and learning, employing people, environment and countryside, housing and local

services, money and tax, passports, travel and living abroad, visas and immigration, working, jobs and pensions.

When accessing the website, under the "UK Digital Strategy", an article can be found, explaining the use and the role of the eGov services, stating: "From personalised services in health and safer care for the elderly at home, to tailored learning in education and access to culture – the tools, techniques, technology and approaches of the internet age give us greater opportunities than ever before to improve services. They will give us all more choices, control and information on how and when public services are accessed".

We'll take for comparison the British and Romanian eGov systems. There stands no comparison between the UK portal and the Romanian one. At first sight, there is a huge graphic difference (the British eGov is using a modern template, everything being easy to access, while the Romanian one is still using the 2011 version). Also, as stated earlier, the UK Government is using the HTML 5 technology that features extended security measures – something that the Romanian Government has not implemented so far. Also, there's a major difference in terms of offered services – while the British service offers many options, as mentioned earlier, the Romanian portal offers only a few services - a tax paying desk, a service for sending documents and a few other services for small and medium businesses. Although is a good start, it's definitely not enough. Every service that the government offers should be offered in online format also – just like the British service, or any other performant e-Government service.

5. CONCLUSIONS

The E-Government, together with the technologies that support it (Cloud to sync all the information in the same time for all the computers engaged in the system, e-mail to notify the citizens, etc.) means the future of efficient administration. By using those technologies, we create a whole new idea of governing and leading the state affairs, making everything more transparent and accessible for everyone. As we saw, there are advantages and disadvantages – but every problem has a solution, so this E-Government could be the best solution in shaping a better administration. The Romanian E-Government program can follow the models offered by other nations: UK, France, Czech Republic and many other states that have an efficient platform. The main goal in developing a better E-Government system should be diversification of services offered to citizens – from helping them to find a job to offer official additional information from the government and its initiatives.

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