E-Government challenges in Romania

Catalin Vrabie[1]

Abstract

This article attempts to present the main challenges of e-government in a reforming country as Romania and the related barriers which comes when trying to implement it. E-government is not a tool limited to richer countries, even if some of the most innovative uses of the Internet in governance are appearing in the developing world. I will examine here the reasons for citizens to still pay tribute to the old traditional methods of service delivery instead of these new electronic ways like e-Tax, e-Vote, e-Market, e-Procurement, etc. Existing studies of e-government concentrate on the supply-side by focusing on the availability and level of sophistication of online services and usage. But there may be also a problem of citizens acceptance, of citizens level of knowledge when comes to ITC, focusing in the evolution of ITC in Romania and how this may affect the absorption of the new electronic services delivered to citizens by the government.

Keywords: barriers, education, trust, failure

[1] Professor Assistant at Faculty of Public Administration and National School of Political Studies and Public Administration

Introduction

In Romania only 30% of population have internet access (this is almost 80% of the urban areas population, which is like 22 million people in total), here there is a very reduce computer endowment, so, knowing those facts we ask ourselves if the ambitious e-Government programs have a real chances to be implemented and to be a success at the end of all. Of course that computer endowment and internet access may grow very quickly, this fact is a matter of resource allocation. If we look at the data presented at the Statistical Yearbook 2007 we may see that from the year 2003 the IT sector in Romania has increased annually by more than 20% and it is still growing (in 2007, probably because of Romanian integration in the EU, the growth was by 25%). But even if the population is not so *connected*, 74% of the Romanian companies have internet access and make use of it (In May 2009 there were 1.320.604 companies registered at the National Trade Register Office). There are no official statistics about the situation now, in the year 2009, but some specialists[2] say that before the year 2010 more than 90% of the Romanian companies will have Internet connection.

Knowing those data and making use of the ITC resources in order to develop e-Gov platforms depends by the education level and also by changing mentalities. The e-Government applications may have a very important act in changing mentalities, an efficient and transparent e-Procurement will raise the population trust in internet applications and the will to use it. A system for paying taxes and contributions, easy to use, will convince many companies and even citizens to use those new technologies instead of loosing time and energy sitting in line at a city hall office.

[2] Professor Vasile Baltac, President Elect of CEPIS (Council of European Professional Informatics Societies), Dragos Dinca, General Director of Romanian National Institute of Administration.

Another way of making those new technologies to be more close to citizens is to invest in their ICT educations. The ECDL Foundation (European Computer Driving Licence) have some programs designed to help citizens for equalize their skills in computer usage (one of the programs is called, not by chance, *equalskills*) and to reduce as much as possible the digital divide (probably the term of digital divide is to extreme and a more appropriate word is *gap*) between various layers within our society: rich vs. poor, young vs. old, normal vs. disabled, etc.

Theoretical framework

"*Public organizations* are social unities (or human groups) made for realization of specific objectives"[3] and, according to Romanian legislation those social entities are financed by public money.

Public service is "the activity which a public employee is obliged to make in the interest of those that are governed" or "a general interest activity, made by a private person with the prerogatives of public power, under the administration control".[4]

Having those concepts we may ask if there is any link between them. And the answer is *yes,* the public service is the reason for public organization to exist and for that, the electronic governance comes to help citizens (the public services beneficiaries) to get in touch with it.

As discussed by Ignace Snellen, e-government at the informative level provides basic information about government operations and services.

[3] Rosenbloom D. H. in Lucica Matei, *Management Public*, Editura Economica, Bucharest, 2006

[4] Parlagi, A. in Ani Matei, *Economie Publică*, Editura Economica, Bucharest, 2003

Beyond this basic level, government can seek higher levels of e-government by allowing citizens to interact and communicate with government, conduct online transactions with government, and gain access to other aligned websites of public and even private nature. E-government is defined as "… the use of information and communications technologies (ICT) to transform government by making it more accessible, effective and accountable (…) the benefits from it may be a low level of corruption, transparency, more comfort and reducing costs"[5] in order to "transform the processes of the Public Administration as a whole and of its interaction with people; this process, through information and communication technologies (ICTs), aims at optimizing the provision of services, at increasing participation by citizens and enterprises…" (Snellen 2005).

The issue of e-government implementation phases is rather interesting debated in the relevant literature. The United Nations E-Government Readiness Knowledge Base[6] have defined accordingly five phases, namely *Emerging Presence, Enhanced presence, Interactive presence, Transactional presence*, *Networked presence,* while Professor Vasile Baltac[7] applying the latter to the Romanian case speaks of only four *Information, Interaction, Processing, Web transactions,* giving however the specific nature of the implementation of e-government in Romania the first two in the United Nations article was implemented together and the last two from the professor and also from UN web page are complex enough for not being implemented yet. So for the purpose of this paper I will assume only three phases. As such, I will argue on the following stages of the e-government implementation: one is the most simple and common use at the every level and this is *information*. This first phase, is

[5]The e-government handbook for developing countries, World Bank-Center for Democracy and Technology, November 2002.

[6] http://www2.unpan.org/egovkb/egovernment_overview/webmeasure.htm#web

[7] Vasile Baltac, *Course notes*, 2008 (unpublished)

for departments and agencies which are using the World Wide Web for posting information's on behalf of external users. The second one, *interaction,* allows a bidirectional communication, users may upload and update information's (like changing postal address) by different methods (the most use is by dropping an e-mail to the responsible person inside the agency). *Processing* is much more complex and requires more responsibility from the public institutions. Here the users may change values using a web site (like paying a tax for example) - in almost any cases it is needed a third part to guarantee the security of transaction.

We may say that Romania has successfully passed the first two phases of e-Government with a big success in implementing the second one, the possibility to download forms necessary in interaction with public authorities, forms that needs to be completed, printed and send it (at least at the present stage of e-Government development) by classical methods using postal services or handed personally to the public servant (rarely the citizens may use the e-mail systems).

Much more rarely is used the third phase, completing the forms on-line and making other transactions, like paying a tax for public authorities, also on-line. The population trust is, and will always be a barrier in implementing e-government platforms. The number of frauds presented by the mass-media (even if there are not so many and not that big as they present it) induces somehow the fear to use the on-line methods for paying taxes. I will come later on this article with explanations on this topic.

Since I've mentioned the word barrier I'll explain it a little bit. In this case a barrier is something immaterial that obstructs or impedes the implementation of e-Government, practically it prevents progress. Either we accept those new technologies or not, it is becoming clearly that this

is the future, so the only things that is come in discussions is the cost of it, the cost of shifting. As long as we fight against, we spend more money for doing it, so why not accepting and fight against these barriers?

According to the European Commission the e-Government barriers are characteristics – either real or perceived – of legal, social, technological or institutional context which work against developing e-Government, either: because they impede demand, by acting as a is incentive or obstacle for users to engage with e-Government services; or because they impede supply, by acting as a disincentive or obstacle for public sector organizations to provide e-Government services.[8]

The number of those barriers varies by the region, the mentalities and the state culture. If we speak about European Countries practically every study made, comes with other number or other barrier[9].

Following an extensive review of existing e-Government research - including the legal foundations to e-Government - and analysis of the results of the online survey *Braking Barriers to eGovernment - Overcoming Obstacles to Improving European Public Services*, there are seven main categories of barriers that can block or constrain e-Government progress.

Leadership failures. This can be translated by an inadequate leadership during any of those three stages mentioned earlier.

Financial inhibitors. It is all about the costs of implementing and developing e-Government; an inappropriate cost/benefit analysis can

[8] "Braking Barriers to eGovernment - Overcoming Obstacles to Improving European Public Services" on-line survey made by European Commission in 2007

[9] "Barriers and benefits in the adoption of e-government" David Gilbert and Pierre Balestrini University of Surrey, Guildford, UK, 2004

constrain or block the investment.

Digital divides and choices. Inequalities in skills and access to ICTs can limit and fragment take-up of e-Government.

Poor coordination. Lack of coordination and harmonization between strategies can put a brake on establishing appropriate e-Government networks and services.

Workplace and organizational inflexibility. The mentalities are tributary to the old practices to the more bureaucratic methods of administration, also the average age of the public servants make those new techniques very hard to be accepted. This is like a mammoth organization which has to deal very quickly to a complete new business environment.

Lack of trust. Heightened fears about inadequate security and privacy safeguards in electronic networks and a general distrust of government can undermine confidence and take up of e-Government.

Poor technical design. Interoperability issues and difficult-to-use interfaces of some e-Government platforms exemplify this kind of barrier.

Every one of it has their specific factors which contribute to the failure of the e-Government implementation or adoption. In this article I will present the most important barriers and the related factors in case of Romania, so I will not be able to develop a very large study that includes all of these barriers mentioned before and of course that I will try to find solution for breaking the barriers that I found to be most imported for implementing e-Government in my country.

Romania study case

The last phase that I mentioned before as being the most complex in e-Government implementation, *Processing,* actually reduce the public organization at the dimensions of a computer (when comes to citizen interaction) and is the one in which the citizen does not interact physically with the organization, everything from completing a form, paying a bill and also to receive the public service (receiving a new identity card, or a construction approval, etc.) is made without the need of paper, without the citizen obligation to sit in line at the office building for hours. This phase in Romania is just a pilot program, the only web portal which has as a unique purpose bringing together citizens and companies on one hand and public administration on the another hand is the portal e-guvernare.ro[10]. This is marking the beginning of "digital reform", a very big plan of Romanian Government which has as a mission to promote transparency, to make administration more efficient by reducing costs and bureaucracy, to assure accessibility to information and public services not depending by time and place, and to prevent and fight against corruption using electronically ways. In the table 1, I will show the maturity level of public services in Romania according to IDABC (scale 1 to 5)[11].

[10] http://www.e-guvernare.ro/

[11] eGovernment in Romania. IDABC eGovernment Observatory. European Communities September 2006.

Table 1: Maturity levels of on-line services in Romania

Public services major categories	Maturity level
Public services for citizens	
Tax payment	3
e-jobs	2
Social services help: unemployment, social assurance, medical assurance, scholarships	1, 1, 2, 1
ID's: passports, driving license cards	1, 3
Car enrolment	2
Construction approvals	1
Police complains	1
Public library access (on-line libraries)	1
Birth certificates	1
University enrolment	3
Residence changing notification	1
Health care services	1
Public services for business	
Social assurance payment	3
Tax payment	3
VTA payment	3
New company registration	1
Data delivery (for statistics)	2
Custom services	3
Environmental approvals	1
Public acquisition	4

Source: IDABC e-Government Observatory. European Communities September 2006

When we see this dataset we ask our self "*why there are so many "1"?"* The answer is also written above and it resides in the barriers that are staying against a good implementation of e-Government in Romania.

First barrier and the most important one (from those described in this article) is *Workplace and organizational inflexibility*. And why is that? Because, and here I will also touch another barrier - *Digital divides and choices,* the lack of IT knowledge and education. In Romania, according

to the National Institute of Statistics[12] - Statistical yearbook 2007 in the 2006/2007 university year there were 780.925 pupils enrolled in high schools and 785.506 students enrolled in higher education programs (the difference is coming from the fact that some students are enrolled in more then one university program). In every high school and university here is at least one course related to IT&C. So knowing those facts, we may hope that the implementation of e-government will be a success very soon. The question that is rising just after is "*what about the elder population?*" public servant or not, most of them are not familiar in working with computers. I will focus first on the IT&C education problems of the public servant.

Romania at the end of 2006 has a total number of 183.000 civil employees in the field of Public administration and defense (source: National Institute of Statistics - Statistical yearbook 2007) and in the same year there were enrolled 41.139 students in political and administrative sciences, which means that in approximately 5 years the new generations are able to replace the oldest one. Of course this is not possible by a number of reasons that are not the subject of this paper, so I will not enter in to this, but just for having an idea, one of the reasons and probably the most important one is the age which of course is strictly related to the experience at the workplace. In Romania, according the same National Institute of Statistics 65.5 % of civil servant employees have more then 35 years (half of them more then 45 years). Seeing these data it is easy to understand the reality here.

In 2001 the Romanian Government provided a new set of regulations by the Government Decision no. 1007/2001[13] where was mentioned that every civil servant must have computer competencies according to the

[12] http://www.insse.ro/cms/rw/pages/index.en.do
[13] Published in: OFFICIAL JOURNAL no. 705 from November 6 year 2001

ECDL syllabus. Lack of motivation of the PA employees with more than 40 years old, contributes to the difficulty of e-Government implementation. They have worked a lot for passing the exams, but they don't see the opportunities that a computer opens to them, they are still paying tribute to the old and bureaucratic methods. Very few of them are able to pass those mental barriers and to start using computers at the level needed for a good e-Gov implementation.

What I was talking about is changing mentalities which are, of course, related to the age and education, of course not only the IT&C education.

For a good e-Government implementation the basics of IT must be known by everybody, public servant or no. In Romania ECDL Foundation have the same educational programs as in the rest of Europe, starting with equalskills (the basics in computers and internet learned in a fun and informal way – practically designed to reduce the digital divide) up to more advanced programs (CAD, Web starter, ECDL Advanced – dedicated to those who want to learn more advanced task and to deal with more extensive functionality).

ECDL / ICDL is a test of practical skills and competencies and consists of seven separate modules covering computer theory and practice. To achieve an ECDL / ICDL certification, the Candidate must successfully pass a test in all seven modules. ECDL / ICDL Module 1 is a theoretical test of computing knowledge at a general level and modules 2-7 are practical skills tests, as follows:

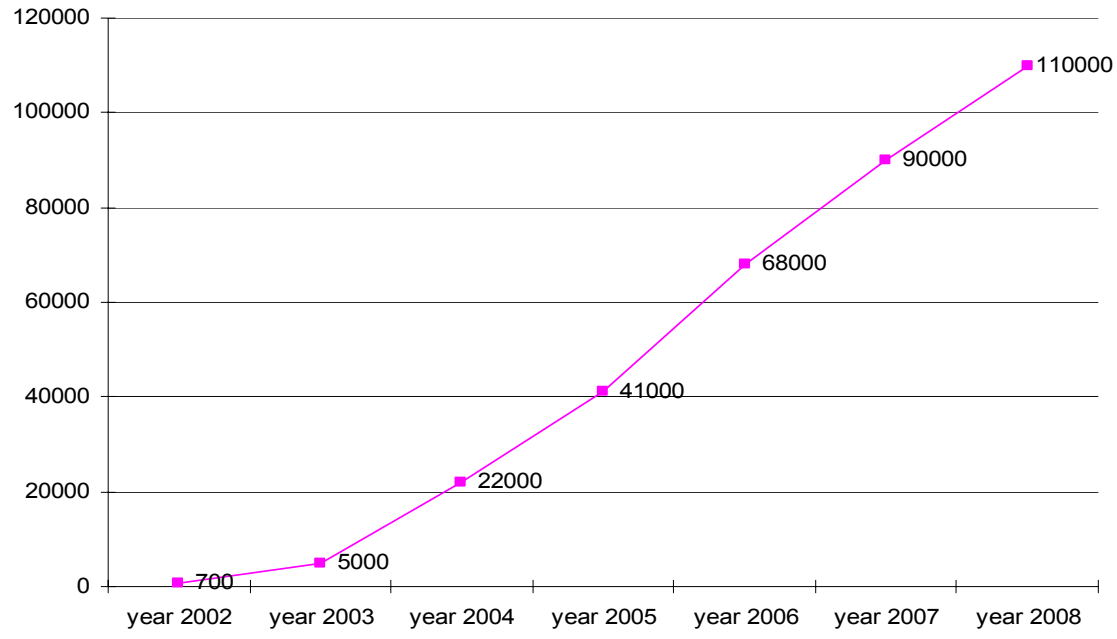
Table 2: ECDL Modules

Module 1 - Concepts of Information and Communication Technology (ICT)
Module 2 - Using the Computer and Managing Files
Module 3 - Word Processing
Module 4 - Spreadsheets
Module 5 - Using Databases
Module 6 - Presentation
Module 7 - Web Browsing and Communication

Source: ECDL Foundation web site

I present in the chart below, the evolution of people who engaged on ECDL courses or at list attempting to pass one test modules in Romania, starting with the year 2002 (this is done by achieving a skills card from one of the authorized training and examination center – and here I must say that NSPSPA is the first accredited center in Romania, even before the existence of ECDL Romania and this was possible by the collaboration with the Danish foundation EUCNord – so we have quite a good experience in working with those programs).

Chart 1: The evolution of people engaged on the ECDL programs.



Dealing E-Government here

Educations

The data presented in the chart before refers to the total number of people engaged on ECDL courses, but effectively people that are completed the course and pass the exams are at the end of 2007 approximately 45.000, in 2008 another 17.000 have ended and from the beginning of 2009 till now another 3.000. From those 65.000 people certified as ECDL course graduate, only 4.310 are civil servant employees. This is not an accurate number, because many of them did not complete the course through their institutions, so they have not been included on statistics. Anyway it seems that the real number is at least triple[14] from the number presented. The rest of them are students, enrolled especially at public administration university programs, or other programs related to PA, like political sciences or administrative low[15] – and we may call them "*the next civil servants*". After graduating they will definitely work somewhere, in the public or private sector, and just by saying that it is obviously that they will use the electronic features that right now we are just talking about.

Nowadays in Romanian schools, computer skills are starting to be developed since the first class, there are computer laboratories in which the pupils have classes once or twice a week (not enough, but still), they practice their computer skills from the basics (using games to improve their dexterity – at the earlier ages) up to computer programming (in colleges). This is a very important step, not late from now every pupil in college (at least) will have his own laptop, as they have now their own mobile phone. Even so there still are enough problems that need to be

[14] According to the discussions made with officials from Romanian National Institute of Administration.

[15] According to the statistics made by ECDL Center from NSPSPA.

solved: most colleges do not plan for 1:1 computing; many have policies that prohibit or deter laptop use in the classroom; most colleges are not equipped to support campus-wide use of technology; most faculties do not require a minimum level of ICT skills; few faculties' members are willing to record their lectures; plagiarism is a real and increasing problem and liability; and one of the most annoying thing is that there is a gap between students and the faculty that teach them when comes to computer usage. But resolving this is just a matter of time and we may say that we've found a way to deal the *e-* revolution on the youngest population, born after 1990, but what about the older population that doesn't have time or energy to start learning computer usage? This is the real challenge.

In Romania there are many distance learning institutions focused on e-learning which come with learning programs dedicated for the civil servant, and especially for those who are already employees. If we speak only about the costs, these are 50% less then in case of classical programs[16] so being more affordable and easier for the civil servants to attend will increase the level of education in the field of ICT (and not only) even for those employees who didn't have the luck to work with computers from the beginning.

I am presenting below a matrix named *Computer Skills for Information Problem-Solving: Learning and Teaching Technology in Context*[17] which was developed in 1996 by Michael B. Eisenberg and Doug Johnson, from Syracuse University in New York have after the set of aptitudes Big6 in

[16] Dragos Dinca, General Director of Romanian National Institute of Administration; speech about the civil servant education on the opening of Center of Advanced Studies on Electronic Services eCAESAR in Romania [on-line: http://www.e-caesar.ro]

[17] Eisenberg, Michael B. & Doug Johnson. Computer Skills for Information Problem-Solving: Learning and Teaching Technology in Context. ERIC Clearinghouse on Information and Technology. 1996. [online] http://www.big6.com/what-is-the-big6/

which is included the set of competencies in working with computer needed for the Information Society.

Table 3: Computer Skills for Information Problem-Solving

Stages	Competencies
Task Definition	
Define the information problem	The public servant must know how to use e-mails, blogs and groups over the internet and how to use efficiently e-documents applications inside the organization network.
Identify information needed	
Information Seeking Strategies	
Determine all possible sources	The public servant must know which is the hardware solutions for collecting and keeping data like hard drives or CD-ROMs, as long as software solutions, on line or off line data bases, and of course how to work with it.
Select the best sources	
Location and Access	
Locate sources (intellectually and physically)	The public servant must know how to search and find information in the organization network along with other databases outside the network, in which he has access, and to relate information that he find to the references.
Find information within sources	
Use of Information	
Engage (e.g., read, hear, view, touch)	The public servant must know to download, read, print burn CDs, to use word processors and spreadsheets, to analyze and filter the information that he needs for the task that he must complete.
Extract relevant information	
Synthesis	
Organize from multiple sources	They must organize and distribute the results of their work. This is done by using tables, charts, presentations and web pages.
Present the information	
Evaluation	
Judge the product (effectiveness)	They must be able to auto evaluate their work along with evaluating others work. This is done by understanding and acceptance of netiquette when posting information on the web or sending them by email, to use the spelling and also to pay attention to the final form.
Judge the process (efficiency)	

Source: the Big6 web portal online at http://www.big6.com/what-is-the-big6/

Mentalities

Knowing this, we must answer to the question "*How to implement quickly and efficient e-Government in Romania?*" During the first semester of the university year 2008/2009 I have collected data from ECDL course participants enrolled at that time in our centre, a total number of 166 persons. It was amazing to find that even if the respondents are very experienced in working with computers and also very young (90% of them less then 25 years old – being students at the Faculty of Public Administration), they don't use the e-Government platforms already implemented (many of them don't even know the features inside of a governmental web portal).

Every one of them have used at list one time the facilities for finding a place on the city map using the interactive maps from the municipality web site. Only 23 of them (14%) have send an e-mail to the authorities trying to solve or report a problem (the public entities to witch they have send e-mails was the National Authority for Consumers Rights and the Police Department). None of them have ever tried to pay a tax by using the electronic money (using an ATM machine or the Internet).

When they were asked about the web portals implemented in Romania: 64% accessed at least one time the e-guvernare.ro web portal, 42% the e-licitatie.ro web portal and 26% autorizatiiauto.ro web portal. None of them have used the feature inside the portal because the reason for accessing was strictly didactic (related to the questions that they should answer later on school). Anyway, we may find that as a good answer, because the students from today are the employees from tomorrow (either on public or private institutions) and they will know about the existence of those web portals. They have also assimilated much knowledge about ICT and have developed enough skills for a good implementation of e-Government in Romania.

***

Bureaucracy is the word that shows us the Romanian method of making administration in nowadays. This concept represent practically the organization way of administrating resources on a high scale using specialized stuff placed into hierarchical structure, with attributions, responsibilities and procedures strictly defined. About bureaucracy it is said that it is as old as civilization is (a good motive for passing to a new efficient system).

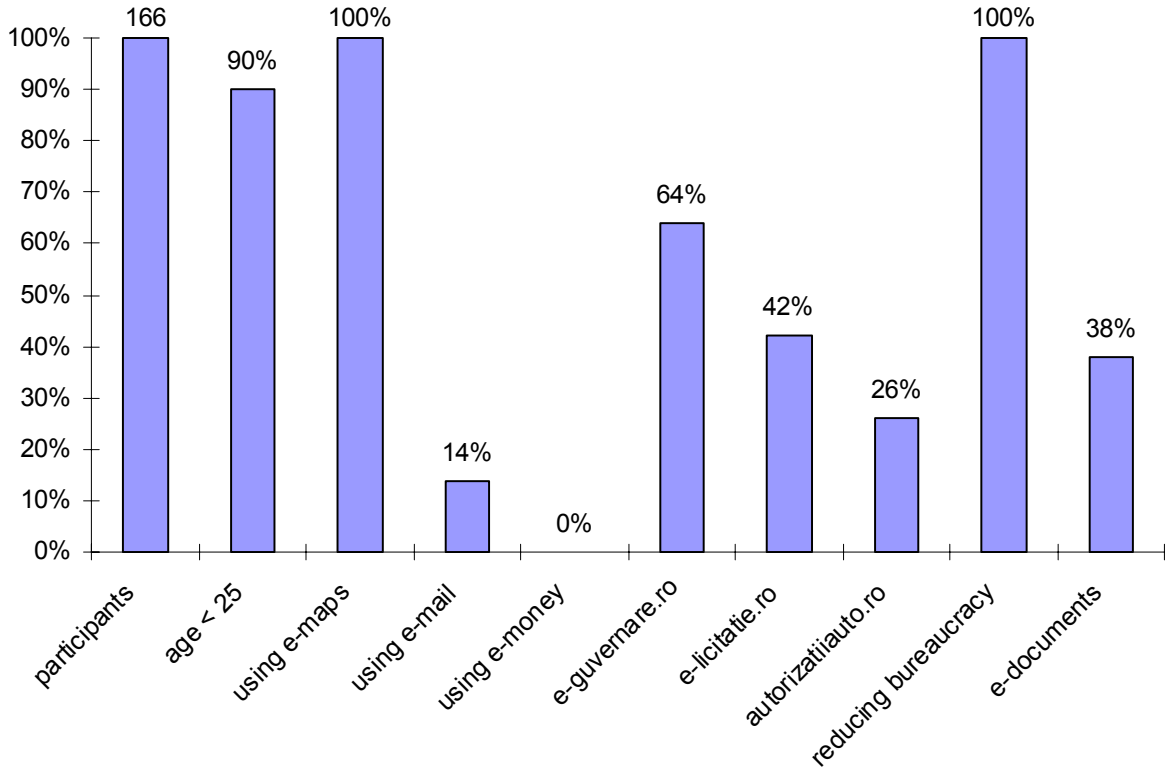
The rigid, bureaucratic, hierarchical way that public administration was dominated in the XX century is changing with a new more flexible form, also known as public management (H.E. Owen, 2003). This change it is not a simple change of management, but a change in governance, in society and a new kind of relation between government and citizen. Because of the average age in the area of public administration it is very difficult to shift from a system that used to work some years ago to another one that have just the premises to work, but nobody "known" tested it yet.

Every one of my students have agreed with the idea that e-government will reduce bureaucracy, of course that it is true, we didn't need another study to say that, but the funny thing about that is that few of them are using the facilities on the web sites that actually reduce bureaucracy. Even if the municipalities (but not only the public institution – it is the same with private companies) have posted documents ready to be downloaded and completed just 38% of my students have actually use this, the rest preferred to complete the forms by hand at the office.

So nowadays in Romania, not bureaucracy is the main problem for an ineffective implementation of e-Government, but mentalities. Those

mentalities must be changed starting from school, college and the faculties. But here we find, as I've all ready mentioned before, the gap between students and the faculty that teach them. Excluding the IT teachers, not to many from the university teaching staff use computers for anything else, except research, which is good, but not enough. They don't even see the possibility to use it on other purpose. Of course that, this will reflect on the students attitude in dealing with public authorities.

Chart 2. Brief summary to the answers at the ECDL course participants survey.



Discussions and conclusions

Knowing that Romania it is still under a development process we may say that every aspect that is characteristic to our country is under development, including here the IT sector. Even if efficiency is one of the most important attribute of public administration, it is still in question if without IT we may speak properly about that. According to The Ministry of Communication and Information Technologies in the year 2008 the investments in the IT sector were more than 1 billion Euros. Using those money properly will induce a success implementation of e-Gov and also opens a new perspective on the field of PA. Changing the nature of governance is something that requires care if the right outcome is to be achieved. If the structure or incentives are wrong, the result can often be suboptimal or even perverse behavior (F. Bannister 2004).

In the field of public sector there are already major investments made on hardware, software and management platforms. But even so, integrating all of those systems may represent a big challenge and can be a long term process

Since its launch in 2002, the Romanian e-Procurement system (www.e-licitatie.ro) has assisted in the award of over 470 000 on-line open tenders, saving the public authorities considerable amounts of money in the process, estimated to be in the region of €178 million. The initial pilot project, developed by the Ministry of Communications and Information Technology, included 159 public authorities and seven product categories. In March 2006, the system has been extended to manage the on-line auctions of over 1.000 public authorities and more than 82 product categories. Created by a young team of IT specialists, the system simplifies procedures for both suppliers and purchasing agencies. On 27 February 2008, the Romanian Government approved the Decision no. 198 for the amendment and completion of the norms to

enforce provisions pertaining to public procurement contracts assigned through electronic means. Following the adoption of this legislative act, starting in 2008, contracting authorities are compelled to use electronic means for at least 20 % of public procurement.

In September 2003, the Romanian Government launches its e-Government portal e-guvernare.ro, providing a one-stop shop to public services online. The portal, also called 'Electronic National System', gives 24/7 access to information from central and local government institutions, official forms and interactive services. 687 official forms from 787 public institutions, and 9 interactive services are available, such as VAT declaration and submission of statistical information. To use these services, citizens and businesses must register to obtain a digital certificate.

On 19 October 2003, testing of e-Voting methods takes place during a referendum on constitutional changes. The e-Voting experiment is deemed a success. Votes are submitted using digital certificates and registered through a system managed by the Romanian Central Electoral Bureau. The system is designed to enable members of the Romanian military and police in missions abroad (Iraq, Afghanistan, Bosnia-Herzegovina and Kosovo) to cast their votes remotely. It was used by 97 % of the 1.600 potential voters during the two days of the consultation and presents no technical problems.

In November 2006, the Ministry of Communications and Information Technology (MCIT) launches the Virtual Payment Office www.ghiseul.ro. Its aim is to facilitate citizens' interaction with public administration institutions by providing for the online payment of taxes, fines and other financial obligations in a fast, transparent, efficient and safe way via bank cards. The first service provided on the Virtual Payment Office is the

online payment of traffic fines.

Those are examples of good practices! This is a good start! But we have to be very carefully because in Romania it is not enough to start well, many projects have started well and ended … not so well. As I've mentioned, e-Government will be implemented in Romania for sure, but we need to do that fast and at a moderate price. There are many barriers that may oppose to the shifting from the oldest, traditional methods of governance to new electronic ones.

I've mentioned *Workplace and organizational inflexibility* along with *digital divides and choices* – as being two of the most important barriers. The new generations of citizens, much more used with technology, will come and help the shifting. The citizen level of knowledge will rise thanks to the computer sciences that are studied on all levels of education. In fact the evolution of ICT sector in Romania is helping through this. If 5 years ago, most of Romanians had their home computers connected to the Internet by dial-up, (or they didn't have a computer), now all of them have high speed internet connection. So we may say that the use of Internet will be as the use of.

So, the education will help in changing mentalities, rising the citizen acceptance and when this is done it remains just to pass to the next barriers, which are of course many and various, but probably not so difficult to handle.

As I've presented here, the Romanian population is not so *connected*, but 74% of the Romanian companies have internet access and make use of it. A good idea, in order to implement a proper e-Government strategy, will be to develop first, the B2G sector, and by that, the citizens will get in touch (not directly of course) with those new technologies and

step by step they will use it also alone, individually.

References

Bannister Frank (2004): Deep E-Government, Performance-oriented Reforms in Budgeting, Auditing and Evaluation, EGPA Annual Conference.

Criado J. Ignacio, (2008) *Public Sector Innovation and the Europeanization of eGovernment. An Institutional Approach*, Innovation in the Public Sector, EGPA Conference Rotterdam, the Nederland, September 2008.

eContent Programme (2002): Improving access to and expanding use of Public Sector Information: Available at: http://cordis.europa.eu/econtent/psi/pubsec.htm (last accessed June 2007).

eEurope Action Plan 2005 (2005): Available at: http://ec.europa.eu/information_society/eeurope/2005/index_en.htm (last accessed June 2007).

European Commission (2007): Braking Barriers to eGovernment - Overcoming Obstacles to Improving European Public Services. Available at: http://www.egovbarriers.org/ (last accessed June 2009).

European Communities, IDABC eGovernment Services (2008): eGovernment factsheet - Romania v.4.0, Available at: http://ec.europa.eu/idabc/en/document/7592 (last accessed June 2009).

European Computer Driving Licence Foundation (2009): ECDL programme, Available at: http://www.ecdl.org/products/index.jsp?b=0&pID=102&nID=108 (last accessed June 2007).

Gilbert David and Balestrini Pierre (2004): *Barriers and benefits in the adoption of e-government* Guildford, UK, University of Surrey.

Iancu Diana – Camelia (2008): Going e-European: the case of the Romanian public administration reform (1998-2006)*, Information Society: Multidisciplinary Approaches*, pp. 227-242

Matei Ani (2003): *Economie Publica*, Bucharest, Editura Economica.

Matei Lucica (2004): *Servicii Publice*, Bucharest, Editura Economica.

Matei Lucica (2006): *Management Public*, Bucharest, Editura Economică.

Owen E. HUGHES (2003): *Public Management & Administration* – Third edition, New York, Palgrave macmillan.

Schuppan Tino (2008): *Skill Requirements for eGovernment*, Innovation in the Public Sector, EGPA Conference Rotterdam, The Nederland.

Snellen Ignace (2005), Technology and Public Administration: Conditions for Successful E-Government Development, In New Technologies in Public Administration, Editors G. Petroni and F. Cloete. Amsterdam: IOS Press.

Vrabie Catalin (2008): *E-Government systems in Romania*, Innovation in the Public Sector, EGPA Conference Rotterdam, The Nederland.

World Bank - Center for Democracy and Technology (2002): The e-government handbook for developing countries, Available at: http://www.infodev.org/en/Publication.16.html (last accessed June 2009)