

The comparative analysis of implementation practices of e-government services

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Abstract

The general trends of e-government development are considered with special emphasis on e-government services. The analysis of current state of the governmental sites of the countries-leaders on the e-government development in comparison with the corresponding sites of Moldova are provided.

1 Introduction

The e-government conception is defined in many documents published by corresponding international ([1], [2]) and national organizations online and by paper. These definitions are being permanently complemented and developed. So the e-government is the complex conception, general aspects of which are: representation of new model of government; reformation of the relationship between state, citizens and business; information technologies application to whole infrastructure of government interactive cooperation with business and citizens. Considering these main aspects the conclusion can be made that satisfaction of citizens needs is determined by e-government services development.

2 E-government development trends

From the services point of view e-government can be formally represented as the implementation of schemes: G2C (Government to Citizen), G2B (Government to Business), G2G (Government to Government) [3]. The analysis of contemporary statuses of government sites of

states, leading in the e-government development, shows trends declared as achievements. Let us consider these trends.



Figure 1. E-debates at Denmark site

The government portals are still actual theme. After the level of government digitizing is passed, these portals are pointed to the implementation of e-democracy elements. At that stage it means to complete the portal functions with the possibilities for citizens participation in government decisions adoption. It can be implemented in the form of e-debates as at sites *www.hals.dk* (Denmark) presented at Fig.1 and *www.kleurrijkvlaanderen.be* (Belgium). Another way is the online petitions filling in as at the site *http://epetitions.scottish.parliament.uk* (Scotland) presented at Fig.2. The most time consuming government transactions, such as licensing (fishing in Norway, gambling in New Zeland), taxes and customs dec-

laration, are represented ONLINE. This also includes citizens demands on receiving the identify documents (passport in UK), real estate information, even immigration papers (Norway).

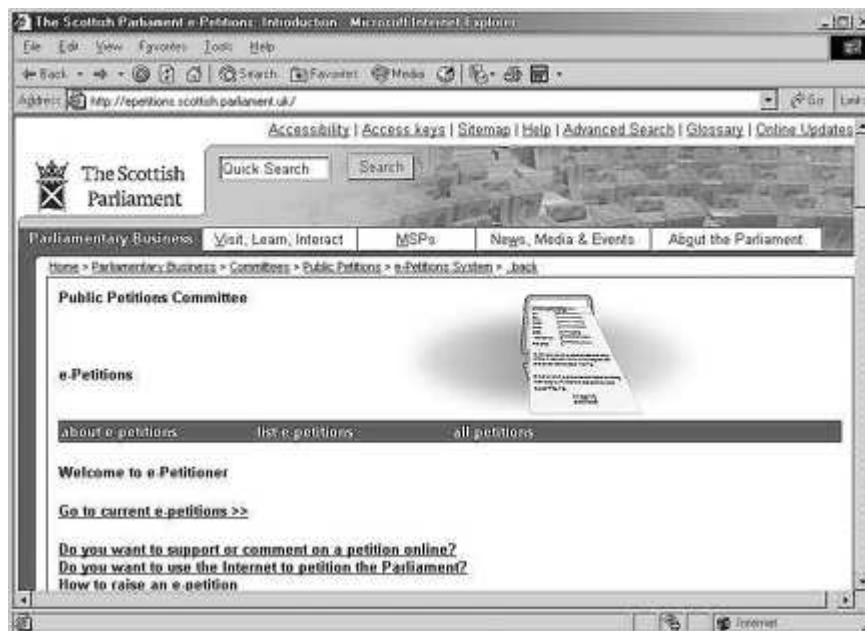


Figure 2. Online petitions filling at scotish site

Besides these transactions the e-elections become more popular theme. The possibility to implement the civil duty without leaving of home resolves the problem of electors presence and saves the finance. The consulting functions of government portals are also been extended by ONLINE consultation of lawyers and civil officials. The variety of internet databases is now complemented by topologic maps bases and real-time updated bases of road events. Although the main government functions belong to the politics the achievement of financial transparency is considered as break-out. In Germany the plans of this achievement are included into the program BundOnline2005.

E-portals are developed for governments of all levels but concept of e-city is considered separately as the unit. Among the winners of e-city competitions of last year there are Copenhagen (*www.kbhbase.kk.dk*) and Bremen (*www.bremen.de*). The analysis of these sites shows that all trends mentioned above are considered as positive at this initial level of e-government. The informative function is fully implemented: officials schedules; access to databases of laws, government acts, real estates, maps, etc; online consulting of officials, lawyers, customers rights defenders; police chronicles. All financial functions (at this level the municipal services payments are added) and the most part of permissive ones are represented online. The elements of e-democracy are also presented at these sites as forum where the citizens can discuss the government initiatives.

2.1 Implementation of G2C

In implementation of G2C e-government branch some achievements are also marked. Initially the main function of this direction was to supply the citizens by required information. More often this function is provided by downloading corresponding documents in PDF format. In particular many sites present tax form in this format (including Moldova). But this initial function is now extended. The materials are joined by theme on CD/DVD and sent according internet inquiry. For example the parliament site of Switzerland sends the bills selection on DVD. The site of ministry of education of the Federal State of North Rhine-Westphalia (Germany) also presents interesting extension of common function: all documents, for example for university entrants, are sent gratis by internet inquiry. Another interesting extension is preparing the personalizing document interactively. For example, the traders can select type of goods and their quantity in interactive form on site of German custom office *www.internetzollanmeldung.de* and then they will receive completed declaration in PDF format. The researcher can receive the table of statistical data from Norwegian site in format requested by him (excel, dbase, etc).

The second prevalent way to supply the citizens by informa-

tion is internet database. The legislation databases are broad presented. The database of Norwegian legislation translated into English is presented on site of Oslo University department of law (www.uio.no/ujur/ulov/english.html) and is provided by keyword search and catalogue. Besides the legislation, internet databases cover the land and lodges prices (Germany), court practice cases (Germany), media and their owners (Norway), public WC with search system and clickable map (Australia).

The government of several countries becomes the customer and then the owner of some free downloadable software. For example the mentioned above site of ministry of education of the Federal State of North Rhine-Westphalia (Germany) presents the software PROGNOS - forecast of graduation emission, WinPlan half-automatic interactive creation of school schedules. The sites which provide customer rights defence should be emphasized. These sites are created by countries with developed e-government and contain corresponding legislation, forms for petition and lists of organizations dealing with theme. At the site of Norway, which is of such type, there is the list of assumption of government officials, traders, transport service people etc.

So, the task of information supply is implemented successfully. So, the main function is changed now to providing government services ONLINE. The most widespread services of this kind is the answer to the specific person question by ONLINE forums or just question form. Some government sites of Moldova also provide such service (Pagina Oficială a Republicii Moldova - www.moldova.md, Pagina Oficială a Președintelui RM - www.prezident.md, Ministerul Afacerilor Interne - www.mai.md, Departamentul Tehnologiilor Informaționale - www.registru.md, Departamentul Dezvoltării Turismului - www.turism.md, Agenția de Stat Pentru Protecția Proprietății Industriale - www.agepi.md). Developing of telecommunication induces the popularity of internet bridges in which the officials answer the questions ONLINE.

In the financial domain the main barrier on the way of e-services is anonymity of Internet and vulnerability of user identification. There are some methods: digital signature, encrypted data transferring pro-

protocols - which are used for confidentiality protection, but taking into consideration the activity of computer piracy these methods are not reliable enough. Moreover the position of several states concerning problem of digital signature is different. For example, Netherlands declares that the government must be independent of digital signature recognition software developers. On the contrary Norway state itself became customer and owner of such software. So in Norway, Austria, Germany the state services dealing with finances, mainly taxes, work ONLINE.

Among another ONLINE services the following ones have to be mentioned: the ministry of inner relation of UK allows the citizens to order the passport both the first and changed ones. The federal road service of Germany allows any car owner to use ONLINE the realtime updated database for finding traffic congestion.

2.2 Implementation of G2B

In implementation of G2B e-government branch the main function is licensing: requests for new enterprise foundation and obtaining, for example, permission of ecological organization. The German ministry of finances gets the expertise (auditing, ecological, etc.) requests ONLINE. Another services of this branch is the information ones. For example, site *www.kvk.nl* in Netherlands is about how to start business in that country.

Let us now examine the sites dealing with this branch in Moldova. Banca Națională a Moldovei (*www.bnm.org*) presents financial markets reports. Agenția de Stat pentru Protecția Proprietății Industriale (*www.agepi.md*) presents ONLINE the library of patenting manuals (Fig.3), the samples of all documents required for invention registration, new about invention legislation and schedules of organizations dealing with patents. Serviciul Fiscal de Stat al Republicii Moldova (*www.fisk.md*) presents the samples of taxes declarations. Agenția Națională pentru Reglementare în Telecomunicații și Informatică (*www.anrti.md*) sets the licenses of electronic and telecommunication domains, presents list and samples of documents required

for obtaining the license. Agenția Națională pentru Achiziții Publice (*www.tender.md*) presents the information about government tenders the tender theme and information to address.

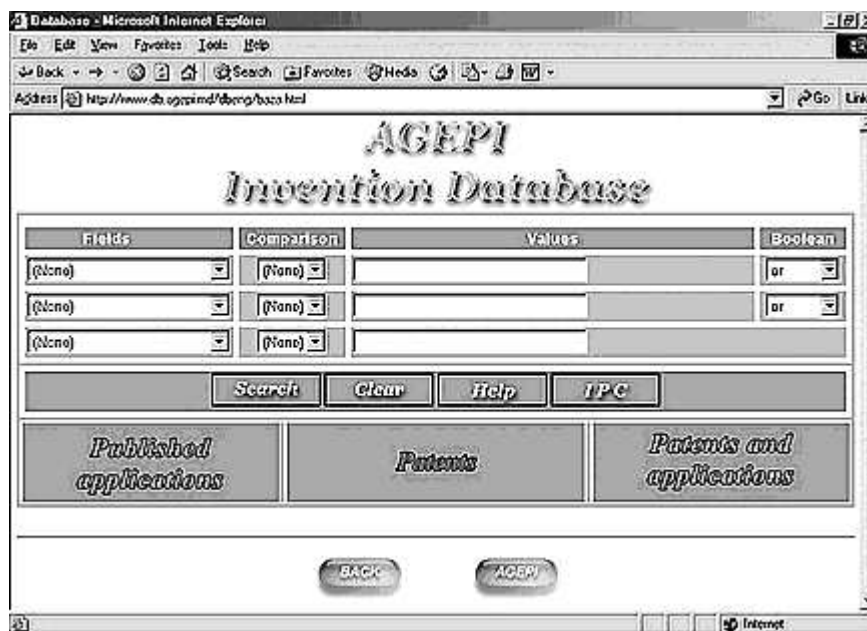


Figure 3. Online inventions database at AGEPI site

2.3 Implementation of G2G

The implementation of G2G e-government branch is usually hidden from ordinary internet user, so we can only rely on the announcements. The Spanish site *www.agenciatributaria.es* supplies the citizens by tax certificates arranging the coordination between corresponding government structures. The site of Pordenone Italian province provides the information for the businessmen of 51 cities. The EU program IDA (<http://europa.eu.int/ISPO/ida/>) was started for development of pan-european sites for government services coordi-

nation. For example: EURES ([http : //europa.eu.int/eures](http://europa.eu.int/eures)) allows the EU citizens to find job in any country of union; PLOTEUS ([http : //europa.eu.int/ploteus/portal](http://europa.eu.int/ploteus/portal)) supports staff training; SOLVIT ([http : //europa.eu.int/solvit/site/index.htm](http://europa.eu.int/solvit/site/index.htm)) presented at Fig.4 helps to resolve juridical problems and to break administrative barriers in business of EU counties.

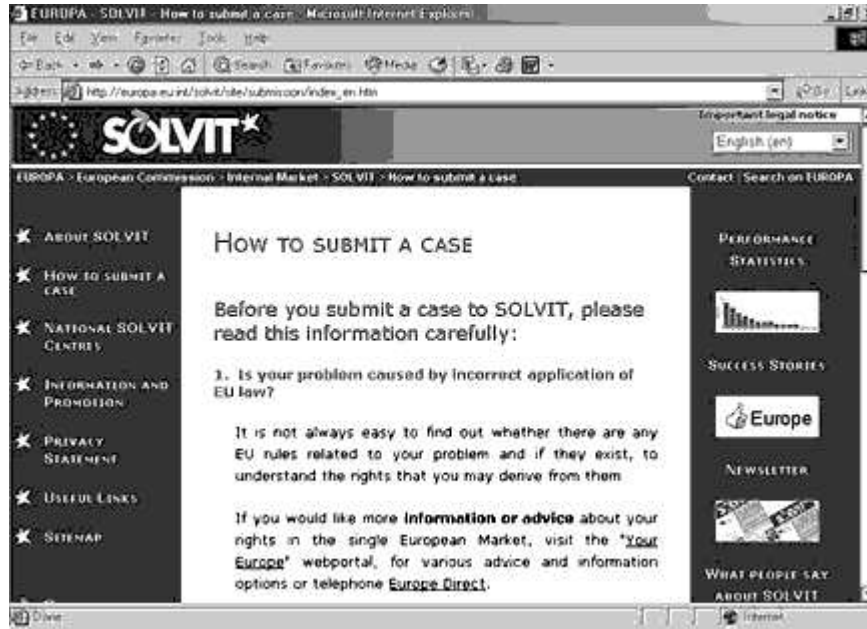


Figure 4. Pan-european site for juridical problem resolving

As was mentioned above the implementation of G2G e-government branch is not transparent for ordinary user, so the absence of due announcements in Moldova makes the analysis impossible.

3 Conclusions

Along with the positivity of trends some problems are also common for all countries. These problems can be practically divided into three

groups.

1. The first group contains the problems drowned by human factor. From one side the large part of officials and administrators do not want any changes in the methods of their functionality. From the other side the citizens themselves take the electronic transactions which are not supplied by hard paper copy distrustfully.
2. The second group relates to finance. This is not only the part of digital gap that is formed by expensiveness of physical carriers of new technologies. The implementation of e-government requires both the once-only financial support and further permanent expenses on its functioning supply.
3. The third group is law concerned. The paper-based office work has today strong enough support of law. To achieve both: the citizens trust in electronic transactions and the performance of new electronic function by government officials - it is necessary to develop and adopt the pack of laws.

The elements of e-government at the sites of Moldova can be analyzed summarizing currently announced worldwide achievements and problems. The conclusions can be made that some progressive trends are matched. Generally this refers to information supply services. The forum-like feedback services are also presented. The gate site *www.moldova.md* is set by design that is perspective for further development to meet best requirements.

From another side all main problems are reflected in e-government sites situation as well. While the legislation problems are beginning to be resolved, the financial services remain poor supplied by internet representation. The G2G branch implementation also has the slightly progress. It mainly consists in development of legislation that supplies information exchange between government structures. So the further development directions are to overcome the evident problems of internet representation of government services. The G2B branch is supplied better then others not only because of real financial support but also because of expectation of investment recoupment. To make G2C branch

working the public explanation must be done so, that e-government services can save the financial and time resources of corresponding state structures as well as of commercial ones.

Following the building of legislation base the citizens' trust in e-services can be formed by state insurance of reliability.

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