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Electronic Services in Public Administration (e-government); Privacy and Freedom of Information. (review of study made for situation in Moldova)*

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Abstract

This article is based on the analytical study [1] performed in the frames of the UNDP Project "Formulation of National Strategy in view of Information Society Technologies for Development" aimed for evaluation of e-readiness level in Moldova.

1 Introduction

Revolutionary development of Information and Communication Technologies (ICT) over the last 10 – 15 years and their penetration in all sectors makes it necessary to revise some customary concepts.

Use of ICT, on the one hand, requires growing investments, on the other hand, it allows settling some crucial problems at less cost and obtaining such results that could not be achieved by other methods. The new terms "Information Society (IS)", "electronic governance" speak about the domains where ICT is applicable.

The European regional conference (http://www.wsis-romania.ro) proposes "the vision of an Information Society, where all persons, without distinction of any kind, exercise their right to freedom of opinion and expression, including the freedom to hold opinions without interference, and to seek, receive and impart information and ideas through

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any media and regardless of frontiers. ... The Information Society is based on broad dissemination and sharing of information and genuine participation of all stakeholders - Governments, private sector and civil society."

The sphere of activity of governments and of public entities is a domain, which is expected to make a qualitative advance due to implementation of ICT. The term "electronic government" ("e-government") is analysed in numerous documents of the UN [2,3], during different international and regional forums [4,5], and also by some countries [6], both in the context of Information Society, and as a separate subject.

Its definitions are the same to a great extent; they are being complemented and, as time passes, completed with subtleties of meaning arising from experience of building "e-governments" in different countries. These interpretations present "e-government" only as *ordinary modernisation* of already existing structures and relations, rather than an independent idea of overall transformation of the very principles by which the state administration is organized. But it is necessary to make a distinction between a government with electronic interface and "e-government".

"E-government" should be treated as a complex and multifacet concept, which:

- reflects a model of state administration,
- is able to transform relations between the citizens and businesses with state authorities,
- includes the entire infrastructure of state administration and interaction of state, businesses and citizens via information technologies,
- supposes *orientation* of all public activities *towards satisfying citizen's needs.*

Implementation of electronic government means both transformation of the government and its activities towards achieving the following three objectives:

1. Improvement of efficiency of administrative agencies. To bring in order tax collection, drafting of laws and regulations, registration of information, circulation of documents.

2. Economic development through facilitation of procedures connected with production and commerce; increasing competitive capacity of the local producers on the world market.
3. Improvement of citizens' life standard by reforming the system of social services, healthcare, better life security, more training opportunities, more efficient protection of environment.

The White Book of Great Britain stipulates fundamental principles of electronic government as follows:

- it must create services ensuring possibilities to choose the form,
- the government and its services must become more accessible,
- it must contribute to inclusion in social sector,
- it must ensure responsibility to information content,
- government resources must be used rationally and efficiently.

The way the new techonological means are used in the existing administrative structures depend on adminstrative traditions, practice and culture proper to each country.

However, real transformations depend on the will of each leader and decision-makers at higher hierarchical levels.

2 E-governance

We shall consider governance not as a physical unit, and not as an act of management helped by some persons. More realistically, we should understand it rather as a process by which institutions and citizens "manage" themselves. Governance is an interaction between the public sector and the approaches to social organization for collective decision-making, facilitation of transparent mechanisms in order to enable monitoring of these decisions.

E-governance is also the method by which the public sector uses the most advanced ICT, including Internet, in offering all citizens good services, sustainable information, vast knowledge, to facilitate the access to management process and to encourage a more active participation of citizens.

The digital government is able to organize a union between citizens, some separate persons and decision-makers at such level that has never existed and could not have existed. It offers the citizen a wide access to information and knowledge, which will predetermine the state of personal freedom in the future.

The scheme of e-governance according [2] is presented at Fig.1:

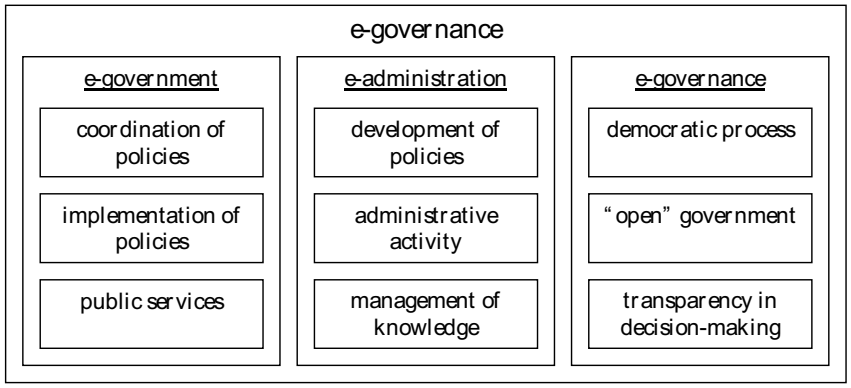

Figure 1. The scheme of e-governance

2.1 Stages in development of e-government

To determine the extent to which the government exploits its facilities to offer information and services, the following classification can be used (by stages) [2].

Formation of presence (Emerging): Presence of government on world wide web is manifested through several independent official sites. Information is limited, incomplete and static.

Growing presence (Enhanced): The content and the information is regularly updated.

Interactive presence (Interactive): Users can obtain application forms, can set up contracts with official agencies, can address interpellations and get job places.

Transactional presence (Transactional): Users can pay for services in real time and to carry out transactions on-line.

Integrated presence (Seamless): Full integration of digital functions is finalized within one gate, independent of administrative and departmental frontiers.

Development of e-administration means looking for and finding an equilibrium between two components: external – citizens and consumers, and internal – the leadership and auxiliary administrative office.

These components are neither in conflict, nor they exclude each other. But experience of Internet use will require a more efficient cooperation. In many countries, both industrially developed and the developing and poorly developed ones, there is a trend within their e-government projects to allocate resources for citizens' services, without making sure, beforehand, that there are necessary possibilities to maintain these initiatives. It may appear that such a trend [4] consists in establishment of some stricter requirements, which will impose a more rapid development.

Implementation of progressive plans to create "e-government" faces a series of difficult problems:

1. All citizens, no matter whether they have access to Internet or not, whether they know how to operate computer or not, must have a possibility to use services of such government. Thus, a massive campaign against illiteracy will be required.
2. E-government must offer its services not only via Internet, but, for instance, via specially equipped television, mobile telephones, pocket computers and Internet public access points. This condition is of prior importance, because otherwise the society will have to face another dimension of divide, which is not desired. Currently, the European Commission studies ways to settle this problem.
3. Another difficulty is the necessity to use broadband channels to access Internet, which ensures rapid data transfer. According to the latest data, over 40% households and 90% of enterprises in EU countries are already connected to Internet. The growing

number of subscribers to these networks will require faster speed of access.

4. Equally important is the problem of security in Internet, because the e-government supposes transmission of some important and confidential information (like, for instance, citizen's annual income statement). One of the practiced methods can be the use of secured protocols and digital signature.
5. There are also difficulties caused by unwillingness of the current government employees and leaders to accept changes, which most directly will affect their working methods. The e-government imposes radical changes in perception of the way how a government employee should work.

Still, the most difficult problems are those that appear due to some structural changes, which are meant to meet the requirements of e-government, if they are not very well thought. The most efficient applications of e-government for auxiliary offices are not those that are used to improve the existing way of documents' circulation, but those that bring fundamental reorganization of government's operations (reengineering), integrating internal and external flow of government's documents, for the citizens to interact with it and see in it an entity that fully meets their requirements. Implementation of these reorganizational changes is difficult; however, potential advantages can justify the risks. The aim is not to minimize the risk, but rather to balance the risks and the benefits.

2.2 Calculation of e-government indices

The "e-government" index is a figure calculated on basis of the components, the hierarchical dependence of which is reflected at Fig.2.

E-government programs are influenced both by external and internal factors. Technologies and educated staff play an important role, although the available resources dictate measures to be undertaken by each government. Transition from one stage to another can be rapid and continuous for countries at the low level (emerging) and slower at

other stages. However, it is important to undertake permanent evaluation and measures that could guarantee improvement of the situation, no matter how slow it is, from one evaluation to another.

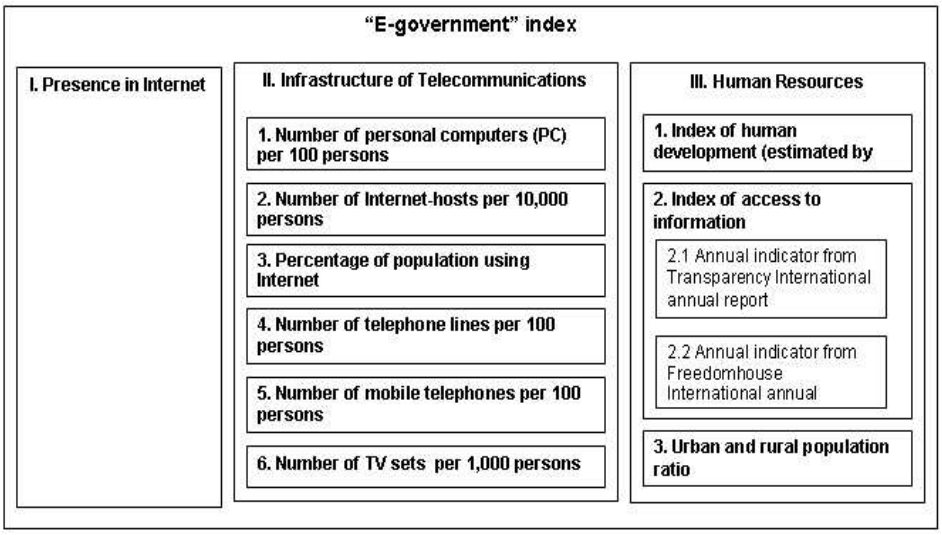

Figure 2. The hierarchical dependence of "e-government" index components

Fig. 3 presents graphs of e-government Index in 2001 (as per [2]) and e-government Readiness Index in 2003 (as per [3]) for a number of leading countries, for the countries with the lowest index, for Moldova, and for some countries with indices close to that of Moldova. In 2001 and 2003, calculations were made by using different methods, and therefore absolute values of these indices are incomparable. However, one may observe the ratios of values of each country to the values of others and how these ratios evolved. One may notice the progress of Australia, Norway, Great Britain, Holland, Denmark, Sweden, which came close to the US index. Estonia made a considerable progress. Slovakia, Slovenia, Romania also progressed. Moldova and Azerbaidjan remained at the same low level.

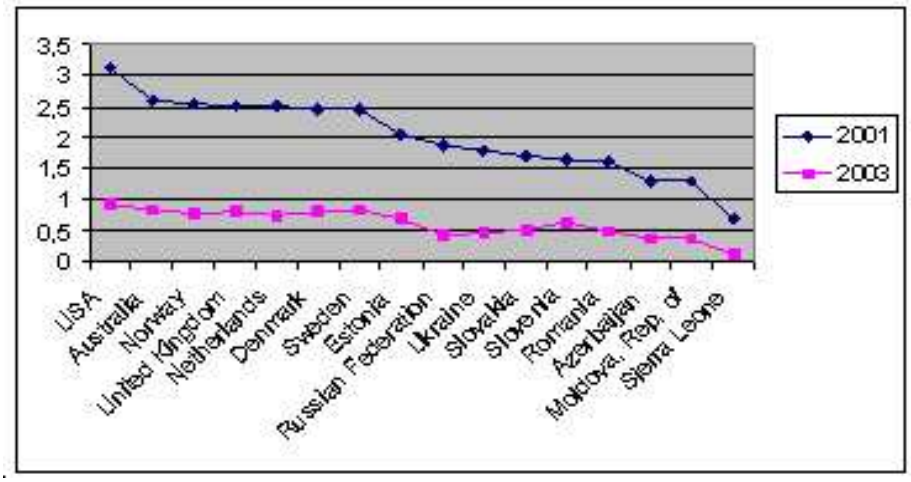

Figure 3. Comparison of e-government indices for the years 2001 and 2003

2.3 Structure of e-government

The digital government is not an experiment in administrative reform, but an element in the process of state administration. E-Government can be viewed (from a different perspective) as having three branches:

G2G –government to government;

G2B –government to business;

G2C –government to citizens.

It includes on-line services to business and citizens localized on the same gate, the circuit of documents in governmental and parliamentary structures, a database of common use to avoid duplication of information and additional costs for its obtaining and processing, and often, a specialized informational network (intranet) ensuring transactions between government structures, equipped with criptographic systems and other information protection facilities, including personal data, digital signatures, systems of authorized access to information and its process-

ing.

The comparative analysis of e-government implementation in different countries (including Moldova) according to the branches G2C, G2B and G2G is given in [7].

2.4 E-governance experience in countries–neighbors of Moldova

2.4.1 Romania

Among other neighboring countries, Romania, which as long as 12 – 13 years ago was not very successful in ICT, has made efforts that have brought about impressive results.

In conformity with the Romanian Government Decision on organization of the **Ministry of Communications and Technology of Information** (MCTI), and taking into consideration the Law on some measures to ensure transparence in exercise of public designations, public and business duties, prevention and prosecution of corruption, the MCTI ensures initiation, management, funding, monitoring, implementation and operation of **projects and programs aimed at informatization of government structures**, as well as funding for coherent development of the national informational infrastructure of the central public administration.

From early 2003, the MCTI issued 29 advisory notes on supply of payment instruments with remote access, of the type of Internet-banking or home-banking applications. Judging by the reports from banks the amount of such transactions reached approximately 25 billion EUR a year.

1. **National Electronic System** (www.e-guvernare.ro) represents **single access point** to public services and information of the central administrative institutions. It was awarded for "the best digital content" in e-Government, during the World Summit for Information Society, chosen together with other 40 projects from the whole world. It is the first step of a process of reforming of public administration so that it to be indeed at service of each citizen. The System includes:

- Over 160 forms made available for downloading;

- 465 involved public institutions;
- 5 online public services, available since September 2003:
  - VAT deduction;
  - Declaration on payment duties to the state budget;
  - Presentation of quarterly and annual accounting reports by large taxpayers;
  - Declaration on the record of insured persons and payment obligations towards the budget of state insurance;
  - System of collection of statistic data.

Approximately 50,000 visitors since the date of launching, hundreds of expressed opinions on how to improve the content of the gate.

2. **Center for Analysis and Response to Security Incidents** (CERIS, www.ceris.ro) is the place where IT officers in public administration will be able to ask for guidance and receive solutions regarding IT security problems they face. Services rendered by this center will focus on means of protection of systems against potential problems, and help to anticipate incidents and even resolve them. At the national level, in 2003 there were about 200 persons under examination, of whom 25 arrested, with prejudice of about $500,000 USD, of which app. $50,000 USD were recovered.

3. **Electronic system of public acquisitions** (www.e-licitatie.ro) is based on the idea of technology used for improvement of transparence in public acquisitions process. The system was launched on March 4, 2002. At the beginning of 2004 the system gave:

- Average saving percentage - 22.6%;
- Savings accumulated - app. 67 million EUR;
- Transactions through this system - app. 220 000;
- Subscription applications – 10 000;
- Authorities-contractors - 1 000 (being 159 on the date of launching);
- Categories of products traded through the system - over 80 (being 7 in 2002);
- National health programs carried out through the system – 10;
- Complex auctions for turnkey construction of sport halls:

- Stage I – 199 auctioned sport halls – Savings achieved compared to the estimated budget: app. 14 million EUR.
- Stage II – 172 auctions – Savings: 12 million EUR.

4. **Payment of taxes and fees by electronic means** (www.mcti.ro) - the system which has two elements:
a) informing the citizen by electronic means about the local fees and taxes to be paid, as well as about their balance;
b) payment of fees and taxes by using electronic payment instruments; the payer can choose paying via ATM, POS or via distant payment instruments of Internet banking, mobile banking or home banking types.

60% of municipalities implemented the system even if only to allow finding out the amount of taxes to be paid.

5. **Electronic system of authorizations in international cargo road transportation** (www.autorizatiiauto.ro) was launched in November 2003 and ensures transparence in electronic assignment of authorizations for transport:

- 1 400 operators of international cargo road transportation hold digital authentication certificates;
- approximately 5 700 authorizations had been allocated electronically before the first half of December;
- 83 000 authorizations taken from the ARR (Authority of Romanian Road-transport), of more than 392 000 administered in 2003 by the Authority;
- 1 800 companies carried out activities of international transportation from the beginning of the year until September 2003 (according to the data of Frontier Police).

6. **Driver's Licence** (http://permiseauto.e-licitatie.ro). This Project is meant to facilitate relation between the government and the citizens (G2C); the latter gain the advantage to contact the government either from their own PCs, or from any other Internet access point. The project changes the relation citizen-state by replacing repeated visits to different offices by placing an application online, by connecting to Internet (don't stand in line, get online).

So far, 31 licenses have been issued to banks authorizing them to carry out transactions via Internet.

2.4.2 Russia

The Russian Federation launched a program "Electronic Russia". Within it, feasibility studies were pursued (2003) and the Information-Telecommunications Center was set up within the Ministry of Economic Development and Trade. In 2002-2003, the hardware platform and software products were developed to operate applications within the Program.

The e-Government Project is part of a larger project "Global Gate of Development" supported by the World Bank through the Institute for Development of Information Society.

"E-Russia" provides for three stages:

I 2002 – analysis of the country's e-readiness in all spheres, audit of ICT legislation, launching first projects of electronic circulation of documents, modernization of educational system.

II 2003-2004. Formation of uniform infrastructure of telecommunications for public and informational Internet and facilities for training and retraining of specialists. Expansion to the world markets as a supplier of ICT services and solutions.

III 2005-2010. Penetration of ICT into economy. Preconditions will be enabled to ensure citizens' right to access to information. The program will ensure integral implementation of standard systems of information circulation.

By the year 2004, it was planned to elaborate a wide network of development gates in 7 regions and a "mother-gate" (http://www.rusia-gateway.ru), with support from 143 partner organizations.

A specialized informational system "Government Gate" was planned within the same dates, in order to ensure informational needs of small business.

Other projects: "Economy's Gate", "Statistic Gate", a model of electronic commerce system was elaborated to serve the regional and municipal needs; the system is now tested in the region of Chelyabinsk

and the Republic of Chuvashia. A package of documents for creation of the federal e-commerce center was drafted. Preliminary testing of e-commerce system was done to enable acquisitions for the federal needs of the state (2003).

Parallel to that it is elaborated: automated control system of cargo transportation on the customs territory of the Russian Federation, monitoring and analysis system of financial and economic activities of enterprises, the Project of unification of informational resources of Russian healthcare institutions and of obligatory health insurance foundations "Personalized record of medical services".

In the Russian Federation in 2002, 4% of population used Internet. This showed 39% growth compared to 2001. Eighty-three federal subjects opened access servers within post offices and 2 600 access points, including 800 in rural area.

The Republic of Chuvashia appears to be more advanced in terms of projects of Information Society.

Twenty-six Public Internet Access Points (PIAPs) were created on basis of municipal structures and 46 points in post-offices.

All regional (provincial) centers opened the PIAPs. In PIAPs citizens can have free access to the central gate of the Republic of Chuvashia.

All public authorities are connected to network. There is the system of electronic acquisitions, the system of monitoring and programs of economic and social development of the republic. A model provincial library is opened in the village Shemursha, for the facility of readers equipped with a computer lab connected to Internet, and there is an PIAP in the administrative building.

A decision from January 30, 2004 "On ensured access of citizens and organizations to information on activities of the authorities of the Republic of Chuvashia" appointed the central gate as the official resource providing information on the activity of the President, the Cabinet of Ministers and executive authorities of Chuvashia. This gate unites sites of over 70 central, provincial and village agencies, and provides multilateral information to citizens about government's activities. All decisions by the President and Cabinet of Ministers are operatively

published in Internet, as well as announcements about contest of national and municipal acquisitions, mass media publications, job vacancies, administrative plans of actions.

Rural population can obtain realistic information about prices on agricultural products in different regions, information about how to get a certificate of family composition, or how to get subsidies for purchase of pure-bred cattle or elite seeds, how to reimburse the profit, office hours of the local and regional administration, and many other socially demanded and important information.

Three medical telecenters using satellite communications have been set up. The telemedical network was set up on principles of co-financing from the federal and republican budget. It is planned that all regional hospitals will be connected to this network. Technologies of networked medicine are meant to solve two major problems: to ensure general access to medical assistance and a high quality of treatment.

For several years already the republican treasury has been supporting works of a system in which all financial documents are sent only via Internet and certified by digital signature.

In parallel the projects of formation of integrated medium of education are being financed. Through these projects the municipal and rural schools have received 3 447 computers. So if in 2000 there were 300 pupils per one computer, in October 2003 this number became 52.

2.5 "One desk" system for e-services implementation

The essence of the idea of "one desk" is the following: to receive the necessary document, the requester, either a citizen or an organization, is obliged to submit to the executive agencies just one's documents directly associated with the requester (application, a copy of identity card, school certificate, registration certificate, etc.). All other documents, which are not directly associated with the requester but which are necessary for issuance of the requested document, shall be collected by the executive agency itself, which is responsible for issuance of the document. So, it will be enough for the requester to contact only the executive agency that issues the final document.

The principle of "one desk" presumes existence of one single point of access for interaction with the authorities at any level. It is necessary to develop a system for the purpose, which will automatically direct the requests and the reports of the entitled agencies of state administration, regarding thus the state as service provider to citizens and businesses. A database of electronic documents issued in "one desk" mode is also necessary. When such base is set up, it will be open to all government entities, citizens and organizations. By entering the respective site on the government's gate, any citizen will be able to get the following information:

- what executive authority issues the requested document;
- what documents must be presented to the service of "one desk";
- the terms for preparation and issuance of the document;
- fee for preparation of the document (if applicable);
- how does the requested document look like (its format).

2.6 E-governance as instrument to combat corruption

E-governance is expected to improve operativeness of executive branch, especially in social services. It will make the executive more transparent and responsible to the citizens and organizations, it will change relations between the state and the citizens, involving the latter into the activities of democratic and public institutions.

In many cases, more transparence, predictibility of social procedures and introducing order, were just the primary objectives of establishment of e-government. When leaders of the government and all stakeholders in the society stick firmly to these objectives, e-governance can become an important instrument to combat corruption.

Three eminent examples below demonstrate us that more transparence and free access to information on decisions and activities of the executive employees, as well as more social responsibility, considerably reduce possibilities and wishes to obtain unjustified profit, as well as corruption among the responsible persons.

Argentina: "Crystal Government" Initiative. The goal of the program "Crystal Government", which was launched in September

1999, was to make all information concerning use of public resources accessible online (http://www.cristal.gov.ar). This refers not only to statistic data about the resources allocated for different government programs, but also to the data about management procedures of these resources.

The project's website was designed in such a way as to provide maximum comfort to the user and is formed around three main subjects:

1) explanation of the way in which the state resources are shared between the central government and the regions;

2) an information center for evaluation of the state policy;

3) short reports on combat of corruption in public and private sectors.

There is an external supervisory body – a committee of 15 NGOs (Non-Governmental Organizations) specializing in "transparence", which ensures annual audit of the site.

The "Crystal Government" Project was successfully "sold" to central agencies for popularization of their activities and possibility of feedback with the citizens. The result was that many administrative entities improved their methods of data collection by placing their questionnaires on the site.

Gujarat, India : Monitoring check points. Reloading of commercial trucks running along the roads of Gujarat became the main threat for security and the main premise to evade excise duties and taxes. These facts, as well as unprecedented scale of corruption among the frontier inspectors, many of whom were sued for robbing and abusing truck drivers, led in 1989 to reconstruction of the traditional system of check points in Gujarat. The state government installed computers and electronic devices in 10 points remote from the state borders and designed a computerized system of fining and collection of fines.

The control process includes use of video cameras installed in check points for identification of the vehicles' registration numbers, which are transmitted to the central database, so that electronic penalty provisions are issued on spot. The drivers are allowed to carry special pre-paid cards for instant payment of fines, to save them of the ne-

cessity to hold cash money on them, which deprives the inspectors of freedom of actions and prevents corruption among them.

Due to this the government of Gujarat, within two years, managed to reduce corruption in check points radically and to increase fiscal income three times by reducing the number of illegally reloaded trucks, not to talk about simpler process of collection of the funds. This program of e-government paid itself within six months and reduced waiting times from 30 minutes to 2 minutes for the drivers.

Seoul, South Korea: the Anti-Corruption Gate "OPEN". Over a decade of rapid economic development in Korea led to considerable growth of municipal bureaucracy in Seoul and led to opening numerous ways for corruption, especially bribes received by responsible officials for quicker processing of applications for business licenses and permissions. This problem gained such extent that in 1998 the mayor Goh Cun made a public declaration that he was going to start war against corruption. He supported creation of an online Internet Gate meant for improvement of processing of private applications (Online Procedure Enhancement for Civil Application -"OPEN"), which offered a wide range of information on permissions and licenses issued by municipal agencies. The web-site makes these procedures transparent for society and allows the applicants to follow their destiny online.

Over 5,000 officers in over 500 departments have been trained in use of the necessary programs to process the applications. Lately, a series of other government functions have been made public in Internet, including the functions of 20 civil departments. According to the latest data, app. 84% of 1100 respondents believes that the OPEN Project improved transparence of Seoul's government.

Conclusions. These three initiatives were successful due to the following considerations:

1. All were actively supported by political leaders at the local and central levels of the government.
2. All three increased the level of responsibility of officers to citizens and to ruling circles, increasing the level of transparence of current procedures and risks for those who look for illegal profit.

The main rules, procedures and punishments for their violation were formulated clearly and predictably.

3. In Argentina and Korea the society participated in e-governance processes.

E-governance can be seen as a support to reforms, but technologies are just an important help. They cannot bring about a result by themselves. Political responsibilities, social resources, participation of citizens are the necessary factors ensuring absolute success.

3 Liberty of access to information and secured confidentiality of private information

3.1 Liberty of access to information

3.1.1 General criteria and situation in the world

Bucharest Declaration [8] established the following fundamental principles to determine priorities for strategies of IS building.

Principle 1. *Protection of access to information and knowledge.*

Individuals and entities must benefit of access to information, knowledge and ideas. Access to information in social sector must be particularly facilitated. Information is basic to an operating and transparent process of decision-making and a precondition of any democracy.

Knowledge is the engine and key to transformation of global society and local communities. Social policy must extend possibilities for access to information to all citizens, including disabled persons, thus doing away with inequality.

Principle 2. *Contribution to universal access to information at accessible prices.*

Principle 3. *Stimulation of linguistic diversity and cultural identities.*

Principle 4. *Development of human potential through training and education.*

Principle 5. *Creation of a favorable environment, including legal, regulatory and political structures.*

Principle 6. *Ensuring confidentiality and security in use of the ICT.*

Principle 7. *Call to the global problems.*

The Article 19 of the Universal Declaration of Human Rights states: "Everyone has the right to freedom of opinion and expression; this right includes freedom to hold opinions without interference and to seek, receive and impart information and ideas through any media and regardless of frontiers."

The right to freedom of information and the demand for an efficient legislation to translate this right into practice has been recognized by a number of international organizations dealing with human rights protection: UN, European Council, African Union, British Commonwealth, Organization of American States.

The World Organization ARTICLE 19 (called after the article of this declaration) drafted standard principles both for the national and international law systems, according to which anybody can determine whether the country's laws guarantee access to official information or not.

Principle 1. *Maximum disclosure*

Principle 2. *Obligation to publish*

Principle 3. *Promotion of open government*

Principle 4. *Exhaustive list of exceptions from the principle of maximum disclosure.*

Principle 5. *Processes To Facilitate Access*

Principle 6. *Costs*

Principle 7. *Open meetings*

Principle 8. *Disclosure takes precedence*

Principle 9. *Protection for whistleblowers*

The fundamental right to freedom of information is guaranteed by 87.3% of constitutions of the world countries. This right was first consecrated in 18th century [9].

Constitutional norms insuring universal access to official information exist in Sweden, Finland, Denmark, Norway, Holland, Spain, Portugal, Austria, Hungary, Estonia, Belgium, Romania. Relevant laws declare the same right in France, Greece, Italy, Russia.

3.1.2 Freedom of access to information in Moldova

Article 34 of Moldova's Constitution stipulates the right of citizens to access to information "on social matters" and obligation of the authorities to offer this information. The law of the republic on access to information, adopted in May 2000 [10] and highly appreciated by the European Council for its compliance with the international standards, was largely discussed both nationally and internationally [11, 12].

International Organization Article 19 [13] mentions positive moments: anyone, in conditions of the law, has the right to look for, to receive and to learn official information (Art. 4). On the other hand, the article 7 lists a number of cases when access to information is prevented.

Article 10 stipulates that the solicitor of information is exempted from the obligation to justify one's "interest to the requested information".

Suppliers of information (article 11) are obliged to provide active and correct information in due time to citizens on matters of public interest and on matters of personal interest, and will publish at least once a year a guide with lists of orders, decisions, other official documents emitted by the respective institution.

A refuse to supply information will obligatorily contain a reference to a procedural act, which serves as foundation for the refuse, and a description of the appeal procedure. The refuse can be appealed against in a hierarchically superior institution, and also in the court, if the applicant considers that his/her right to information has been infringed (articles 21-23).

The Law on the state secret adopted in May 1994 establishes the foundations for restricted access to information.

Article 2 of this law defines the state secret as follows: "... is protected by the state in the fields like military, foreign policy, counterinformation and operative investigation, and diffusion, divulgation, loss, illegal receipt or elimination of which can endanger security of the Republic of Moldova" (underlined by us). This definition gets too many interpretations. The problem becomes even more acute with the wide

range of public agencies entitled to qualify information as secret: the Parliament, the President, the Government, central and local administration, legislative bodies (Article 4).

However, Article 28 renders control and supervisory functions to the Standing Bureau of the Parliament; it is this Bureau to which administrative bodies are obliged to present the required data. It seems that the most legal protection is enjoyed by commercial secrets, which are stipulated in the art. 344 of the Penal Code.

The most important obstacle in free circulation of information in Moldova is unawareness combined with abuses by officers. Very few citizens know about existence of these laws, and even fewer know their provisions, and only some of them have ever made reference or appealed to them. On the other hand, public officers ascertain that they have no resources to answer all requests for information operatively and efficiently, under the terms of law [12].

The report by ARTICLE 19 of October 2003 [13] mentions that from the time the law was adopted, public agencies have not become more transparent. From the few measures meant to improve the situation, there is an amendment of 2001 to the Administrative Code providing fines to the public officers for illegitimate refuses to present information. The Penal Code adopted in 2003, considers as the crime the infringement of legislation on access to information (article 188) and the concealment or fraudulent misrepresentation of data about environment pollution (article 225).

3.2 Insurance of Confidentiality of Private Information

3.2.1 General Notions and Situation in the World

Confidentiality as one of the human rights is periodically monitored, with digests "International Surveys of Privacy laws and Practice" published (in 1998 [14], in 2003 [15]).

Declaration of Human Rights (1948) promotes protection of personal and territorial confidentiality, as well as confidentiality of communications [16]. Article 8 of the Convention for protection of human rights and fundamental freedoms of 1950 [17] declares: "Everyone has

the right to respect for his private and family life, his home and his correspondence. There shall be no interference by a public authority with the exercise of this right except such as is in accordance with the law and is necessary in a democratic society in the interests of national security, public safety or the economic well-being of the country, for the prevention of disorder or crime, for the protection of health or morals, or for the protection of the rights and freedoms of others."

Almost all countries of the world constitutionally recognize the right to confidentiality. These constitutional norms include, as a minimum, the right to safety of home and confidentiality of communications. Some new constitutions, like those of the South Africa and Hungary, are very minute even about the rights of access to personal data.

Some countries are not specific in their constitutions about confidentiality (for example, the USA, Ireland, India), so that their courts rely on other laws when examining the cases of confidentiality. In some countries the national legislation is enhanced by regulations from the International Pact on civil and political rights [18], as well as from European Convention on Human Rights.

Early 70s was the time for adoption of the laws meant to defend confidentiality. Most of these laws were based on the model of the Organization for Economic Cooperation and Development of the Council of Europe. In 1995, having realized the deficiency of the national laws and the difference between the degrees of protection of confidentiality in different European countries, the European Union promoted the directives regarding "Protection of citizens' interests in personal data processing and free distribution of these data" [19]. They contained proposals for a more efficient protection of information and became a model for the national laws.

Even in such democratic states like the USA, infringements of human rights, connected with the control of communications, are widely spread. State Department in one of its annual reports affirms that over 90 countries exercise illegal control of information of political opposition, law-enforcement agents, journalists, trade union activists.

Even in countries where laws on protection of confidentiality are rather tough, police still keeps enormous files of citizens who are not to

blame for anything, not even suspected. These problems are examined today in Sweden and Norway, the two countries with one of the largest histories in what concerns insured confidentiality in relation to the police' files.

Businesses infringe the law regularly by collecting and distributing personal data. Thus, in the USA, although there is a law from time immemorial on protection of information about consumers, businesses continue to use it in marketing purposes.

As it follows from polls, people now are afraid of violation of private information more than ever in Modern history [20]. Whole groups of citizens from different countries express their concern with intrusion into their personal life, and this makes more and more countries to adopt laws with the specific purpose to protect intimacy and confidentiality. Right protection organizations mention that new technologies are frequently exported in developing countries, which do not have proper legislation able to protect citizens. Modern monitoring technologies create certain obstacles in the way of development of e-commerce.

As Privacy International[1] believes, "with efficient constitutional and legislative protection lacking, these technologies have a negative impact over democratic reforms. They can be used against anybody who may be of "interest" to the regime".

Possibility to use powerful computers in purposes of monitoring and control required adoption of some special rules in what concerns regulation of collection and processing of personal data. New constitutions adopted in many countries reflected this right. The upgrading process of specific legislation can be tracked back to the emergence of the first law on protection of data, adopted in Germany, Hessen land, in 1970. It was followed by the laws in Sweden (1973), United States (1974), Germany (1977) and France (1978) [21].

Definitions of what is data protection in different declarations and laws differ only in details. All acts stipulate that personal information must:

- be obtained fairly and legitimately;

[1] A human rights group formed in 1990 as a watchdog on surveillance and privacy invasions by governments and corporations (http://www.privacyinternational.org).

- be used only in conformity with the predetermined purposes;
- comply with the purpose for which it was collected;
- be precise and up-to-date, and then destroyed upon achievement of the purpose of its collection.

The Directive on data protection introduced in 1995 by the European Union and which became the model for national laws, brought about the effect that all these laws had to be harmonized for all EU countries [22].

There are several models of protection of confidentiality today. Some countries use several models simultaneously.

The model applied in Europe, Australia, Hong-Kong, New Zeeland and Canada supposes existence of a public officer responsible for all legislation on data protection. This officer is appointed a commissionaire or just an entitled person. He supervises law enforcement and carries out respective investigation. In some cases this officer acts against the delinquent. The Commissionaire is also responsible for promotion among the society and international relations in the field of data protection.

Data protection can be realized, theoretically, through autoregulation methods. Thus, commercial companies establish their own rules. However, observations show that this practice does not reach its goal: the rules thus established are not observed.

Lately, one has witnessed rapid development of technologies that can find applications in commercial activity. Protection of confidentiality happened to be in hands of citizens themselves. Internet users have access to a series of programs and systems offering diverse levels of protection of confidentiality and communications. The aspects of security and reliability of these systems are still debatable.

Some technologies present danger from the point of view of confidentiality. Many of them are implemented and used without any legislative restrictions.

Personal cards or files in this way or another exist in all countries of the world. Types of cards, their destination, as well as the volume of information are different. Most countries use obligatory official cards, made for all citizens in the same uniform national way and used in

diverse purposes. However, a number of developed countries have no such system of cards. Among them, the USA, Canada, New Zeeland, Australia, Great Britain, Ireland, Scandinavian countries. "The system of cards" is adopted in Germany, France, Belgium, Greece, Luxemburg, Portugal, Spain.

A new trend in identification process is biometrics, i.e. the process of collecting, processing and storing the data about personal physical characteristics for identification purposes. Among the most popular biometric systems – retina's scanning, hand geometry, dactiloscopy, voice recognition and digital photography, that are stored electronically. Biometrics managed to draw attention of governments, because unlike other methods (cards or other acts) it ensures complete and accurate identification.

Biometric systems are being implemented in different countries of the world. Spain started the process of general dactiloscopy to settle the healthcare-related and employment problems. The Russian government made public declarations about its intentions to apply dactiloscopy in banking. In Jamaica, the citizens are subjected to dactiloscopy of thumb to be admitted to voting. France and Germany are testing equipment that will allow placing finger-prints on bank cards. These technologies are applied in commercial enterprises, public agencies, children support centers, police and ATMs.

The most debatable is the ADN identification technology. In some countries (USA, Germany, Canada), police work on elaboration of national ADN databases.

It should be mentioned that use of personal information in purposes other than the ones initially declared in time of collection can cause enormous harm to person. Especially when we have to deal with sensitive data, i.e. such data that require especially cautious attitude in operating with them. This category includes, for instance, data about the state of health. Patients become victims of negligence, errors, and lack of responsibility of the medical staff. But there are other categories of professional secret as well: guaranteed by advocates, notaries, banks, commercial companies, reporters and, finally, the secret of religious confession.

3.2.2 Situation with Confidentiality in Moldova.

The analysis of the legislation of Moldova [10, 11] from the point of view of access to information and guaranty of confidentiality of private information brought to the following conclusion.

Moldova's effective legislation on access to information and protection of private information requires improvement. Government decision of March 18, 2002 is not a law, and new laws on protection of confidential information were not adopted. Majority of population does not know legislation and does not know world trends in the field, therefore, promotional measures are required. Besides, such measures are required that will make these laws to work for the benefit of citizens.

4 Proposals

Declaration of principles and the Plan of Actions adopted at Geneva Summit [23, 24] prescribe specific directions to enhance progress in order to achieve the goals accepted at international level, and namely: promotion of ICT products, networks, services and applications, support to the countries in overcoming the digital gap. The Information Society as foreseen in the Declaration of Principles, will be realized in cooperation and solidarity between the government and all other participants.

Particularly, the component **E-government** of the Plan of Actions provides:

a) Implementation of e-governance strategies targeted at applications meant to innovate and promote transparence in public administration and democratic processes, growth of efficiency and enhancement of relations with citizens;
b) Elaboration of national e-governance initiatives and services at all levels, adapting them to the citizens' and business' needs, to ensure a bigger efficiency of allocated resources and public goods;
c) Support to the initiatives of international cooperation in the field of e-governance for the purposes of growing transparence, responsibility and efficiency at all levels of governance.

Taking into consideration these stipulations and situation in Moldova it is necessary to note that the effective implementation of Electronic Services in Public Administration and of Inviolability of personal information and right to information require the coordinated solution of all programs connected with building of the IS in the framework of the unified state program. So the following actions are proposed for Moldova:

- Elaboration of a state program "Building Information Society in Moldova";
- Elaboration of official web-gate of the Republic of Moldova;
- Implementation of the "one desk" system;
- Bringing legislation on information in compliance with the European standards.

The state program is supposed to cover the realization of the following aspects:

- Interconnections government $\leftrightarrow$ citizen, government $\leftrightarrow$ business, government $\leftrightarrow$ ministries (departments), ministry $\leftrightarrow$ ministry;
- E-democracy – ensuring opportunities for citizens to participate in discussion of procedural and legislative acts, decisions and projects of government or other administrative entities;
- Development of information infrastructures;
- Connection of schools to Internet;
- Connection of local administration to Internet;
- Setting up Points of Public Access to Internet;
- Support to ICT activities;
- Continuous education;
- Elaboration of legislation proper to information society (electronic document, digital signature, e-commerce, mechanisms of efficient protection of confidential information, etc.);
- Elaboration of telemedicine network;
- Creation of digital museums and libraries;
- Standardization of government sites: from the point of view of content and friendly and reliable access;
- Elaboration of concept, legislative base and information instruments required for operation of "one desk";
- Restructuring of government's and ministries' activities.

References

[1] L.Burteva, S.Cojocaru, C.Gaindric, G.Magariu, T.Verlan, *Electronic Services in Public Administration (e-government); Privacy and Freedom of Information*, Technical report, Institute of Math. and Comp. Sc., Academy of Sciences of Moldova, 2004. (in Romanian)

[2] Benchmarking E-government: A Global Perspective - Assessing the UN Member States, 2002.

[3] World Public Sector Report 2003: E-Government at the Crossroads, United Nations, New York, 2003, www.unpan.org/dpepa_worldpareport.asp

[4] European Union The Use of Information and Communication Technology in the Public Administration of the EU Member States, 35th Conference of the Directors-General of the Public Service of the Member States of the European Union Strasbourg, November 2001

[5] Implementation of the concept of "the electronic government". Strategy on automation of the public services, offered by Microsoft corporation, (in Russian), http://www.microsoft.com/rus/government/whitepapers/eGov_Strategy.asp

[6] A.Golobutskii, O.Shevchiuk, "Electronic Government", 2002, Ukraine.

[7] L. Burtseva, "The comparative analysis of implementation practices of e-government services", Computer Science Journal of Moldova, V.12, N.3, 2004, pp. 457–466.

[8] The Bucharest Declaration, The Bucharest PAN-EUROPEAN conference in preparation of the world summit on the information society, "Towards an Information for Action", 9 November 2002.

[9] Janis Mark W., Kay Richard S., Bradley Anthony W. Europen Human Rights Law. Oxford University Press, 2000. P. 138.

[10] Lege privind accesul la informaie, Monitorul Oficial al Republici Moldova, 28 iulie, 2000

[11] Hotrîre pentru aprobarea Concepiei sistemului informaional automatizat ,,Registrul de stat al populaiei" i Regulamentului cu privire la Registrul de stat al populaiei

[12] The memorandum of aspects of the Moldavian bill of freedom of the information, made by organization ARTICLE 19, the International Center Against Censorship, London, May, 1999, http://www.internews.ru/law/moldova/memorandum/, (in Russian).

[13] Article 19, The press under pressing of politics. Freedom of mass-media: a situation in Byelorussia, Moldova and Ukraine (October 2003.), (in Russian), http://www.article19.org.

[14] Privacy and Human Rights 1998, An International Survey of Privacy Laws and Practice, October 1998, http://www.privacyinternational.org/survey/phr98/

[15] Privacy and Human Rights 2003, An International Survey of Privacy Laws and Practice, September 2003, http://www.privacyinternational.org/survey/phr2003/

[16] Universal Declaration of Human Rights, http://www.hrweb.org/legal/udhr.html.

[17] Convention for the Protection of Human Rights and Fundamental Freedoms Rome, 4.XI.1950. http://www.coe.fr/eng/legaltxt/5e.htm.

[18] International Covenant on Civil and Political Rights, http://www.hrweb.org/legal/cpr.html

[19] Directive 95/ /EC of the European Parliament and of the Council of On the Protection of Individuals with regard to the processing of personal data and on the free movement of such data.

[20] Simon Davies, "Re-engineering the right to privacy: how privacy has been transformed from a right to a commodity", in Agre and Rotenberg (ed) "Technology and Privacy: the new landscape", MIT Press, 1997 p.143.

[21] David Flaherty, "Protecting Privacy in surveillance societies", University of North Carolina Press, 1989.

[22] Directive 95/46/EC of the European Parliament and of the Council of 24 October 1995 on the protection of individuals with regard to the processing of personal data and on the free movement of such data. http://www.odpr.org/restofit/Legislation/Directive/Directive_Contents.html.

[23] Declaration of Principles, WSIS-03/GENEVA/DOC/4-E, 12 December 2003, http://www.itu.int/wsis/documents/doc_multi-en-1161|1160.asp

[24] Plan of Action, WSIS-03/GENEVA/DOC/5-E, 12 December 2003, http://www.itu.int/wsis/documents/doc_multi.asp?lang=en&id=1161|1160

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