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Developing a Better Interaction between Citizens and the Municipality. Study Case

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Abstract: Understanding citizen online goals is critical because it gets at the heart of what the public institution web site should or could "do". The challenge is that for most agencies/institutions, there are likely to be multiple goals that represent the "reason why" citizen could come to the web site. Unfortunately many public institution feel that it should have an online presence only, so, many web sites are created to offer a little more than online reproductions of its services. The purpose of this article is to provide an example of a public institution Web site, developed for a better interaction with citizens so that they may add value to their Web site. This article shows the initiative of the Brasov City Hall (central Romania) to develop an online technical dispatcher. The project is consistent with initiatives undertaken at EU level - eEurope 2005, eEurope +, i2010 by adhering to the principles of interoperability, interactivity public services, trust, security, privacy, and is fully consistent with the Romanian Government strategy regarding the informatisation of the public administration. Creating a dynamic Web site that contains a dispatcher component through which citizens can address in order to provide information about a specific problem encountered in the city and by that the responsible institutions to be mobilized timely. Brasov City Hall Web site can be used as a frame of reference for this type of interaction because its providing to the citizens a wide range of electronic services, extended availability and increased efficiency in handling the citizens demands.

Keywords: e-gov; electronic; digital

1. Introduction

E-government has become extremely popular. Nowadays, it has become a viable alternative to traditional administrating methods, so it has been adopted by many institutions, especially because its wide application in various organizations. Specialized studies, published in the last five years, show a continued increase in the use of e-government in public organizations (Towards Maturity, 2012; eEurope 2005; eEurope+; i2010).

Today the term e-gov has come to be classified as:

- E-gov based on intranet (public institutions networks used for exchanging information inside the organization);
- E-gov based on Internet (used for interacting with citizens and business sector).

This paper aims to present mostly the second kind of interaction by providing e model realized by the city hall of Brasov municipality in Romania. I choose Brasov manly because it is one of the first cities in Romania who implemented GIS (Geographic Information System) in order to interact with citizens and secondly because is an emblematic citadel for this country (considered by many Romanians as the most beautiful city here). With a population around 250.000 inhabitants, having a classic way of

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governance (mayor and the city council) this city attract a lot of investments from national and multinational companies, and, by that, the city management must adapt to all the needs from the business sector as well as from the citizens (www.brasovcity.ro).

2. The Framework

2.1. General Framework

For the municipalities in Romania electronic governance is a relatively new practice (the first national project on this theme was initiated in the year 2003 - www.e-guvernare.ro) and it includes digital governance (the offering of public services through electronic means) as well as digital democracy (citizen participation at the governance activity); (Holzer & Kim, 2005).

Today, for interacting with the public administration a computer connected to the Internet is usually enough. Connecting from a browser to an institutional Web page is generally enough for getting and sending information ti it. Scientific literature presents 5 pillars of interaction of the PA with its environment (Pardo 2000; Baltac 2011; Vrabie 2009).

Pillar 1. Displaying information on the Web – one-way communication. This is the easiest form of interaction, serving the purpose of informing the citizens.

Pillar 2. Two-way communication. Through this method the public administration can collect data from the environment to which it addresses, either by e-mail or by using Web systems of data transferring.

Pillar 3. Financial systems and Web transactions. The Web site offers the possibility of doing the complete public service through it. For the applicant there is no need for another official procedure through which he must use documents written on paper. This type of government is partially possible through offering access for the citizens and the business environment to on-line databases.

Pillar 4. Vertical integration (inter-department) and horizontal (intra-department) of the public services available on-line. This level of interaction is dependent on the speed with which the synchronization of information is achieved for the on-line IT systems to provide in time the data needed by the users.

Pillar 5. Citizen participation to the government activity. In this phase it is promoted the participation through electronic systems like: discussion forums, blogs, electronically voting systems (not necessarily electoral), electronic questioner, or any other method of direct and immediate interaction.

The conceptual frame marked by those five pillars is necessary for the understanding of the evolution of e-government. In Romania, in this moment there are 41 districts and 103 municipalities, all of them being present on the Internet (primariadigitala.ro 2012). From these, only few of them have a Web site sufficiently developed to allow communication as it is described in the pillars 3, 4 and 5. Practice has showed that there is no lineal evolution, so we may expect from the next analysis to find out that the number of municipalities that use well developed Web platforms increased.

2.2. Brasov City Local Framework

By the development strategy of the City of Brasov, this project is a component of the Integrated Development Plan of the Municipality, developed under the Regional Operational Programme 2007 -

2013, Priority Axis 1: "Supporting the sustainable development of cities – as urban growth poles" Area of intervention 1.1 "Integrated urban development plans."

In the daily activity of Brasov City Hall it has been identified a number of workflows that are based on complaints received from citizens in which they requested some information on the services provided by the town hall and a number of complaints about the services offered by institutions operating within the City infrastructure. Some of this information was previously managed by existing information systems through common workflows, but after a brief careful analysis of the types of requests for a certain period of time, it was observed that they related to different fields of activity, and, for some there were involved partner institutions.

Also, there were identified a significant number of workflows in which the officials had to process data and documents not generated internally (in any of their departments or public services under the control of the City Council) but by citizens (or private companies) or its institutional partners (e.g. utilities providers).

For these data to get into the existing computer system, the officials must enter it manually – most of them being received on paper. In this context, the official must make a serious effort of manual processing and data entry. Generally, the public official position as an interface between the classical and the electronic support information shows the following options:

- Either the officials are charged with time-consuming task of data collection from the paper source documents (or Word, Excel documents etc.) sent to the City Hall by persons or institutions that generates the data or

- They renounce to use these data packets on internal working processes of the municipality because of too high processing cost.

Both cases generate lower quality administrative act and, by that, the one who suffers the most is the beneficiary, the citizen.

3. Implementing Software Applications for Geoportal System, Dispatching System, Citizen Relationship Management System, Business Intelligence Reporting System, Call Center Component Development and Electronic Archiving Systems

The whole project aims to provide integrated services like: citizen involvement through Geoportal system, development of electronic services to act as interface between the City Hall and institutional partners, effective analysis and real time reports based on the simultaneous collection of information from multiple systems.

Thereby, the electronic services are respecting following characteristics:

- Input in to the computing environment the dataflow /information existing at present time inside the City Hall and its external partners;
- It helps to externalizes to partners, owners of those information, the effort to collect the data and insert it into the computer system of the City Hall of Brasov.
- The information content has a geospatial component (e.g. location and surface of maintenance works, street lighting pole on which was carried out the maintenance work etc.).

This Integrated Technical Dispatch works as an information and decision-making hub which consists either in the collection of information from various systems of the City of Brasov (video monitoring

system, public lighting, traffic light management system, management of specific applications traffic, geographic information system, document management system, ERP system), from utilities providers companies or other public services as well as providing information to different institutions or companies authorized in traffic and citizen safety measures like: Romanian Police, Community Police etc. To achieve these objectives it has been necessary to develop new solutions and IT applications like the following:

***Front office software applications*:**

- Geoportal – an interactive map for consultation by the public the information on: work maintenance status and the people referral problem by marking an incident map (Figure 1. Digital map for positioning incidents);

The major benefit that this application comes with is the fact that it helps the institution to put the citizen in the center of its activity. By that they will be properly informed on the work maintenance of the city (roads, infrastructure etc.) It can also indicate problems in providing the service interruption or its quality reduction. All citizens will be able to participate effectively on the application by marking incident notification on to the map, or even by providing information about the work status.
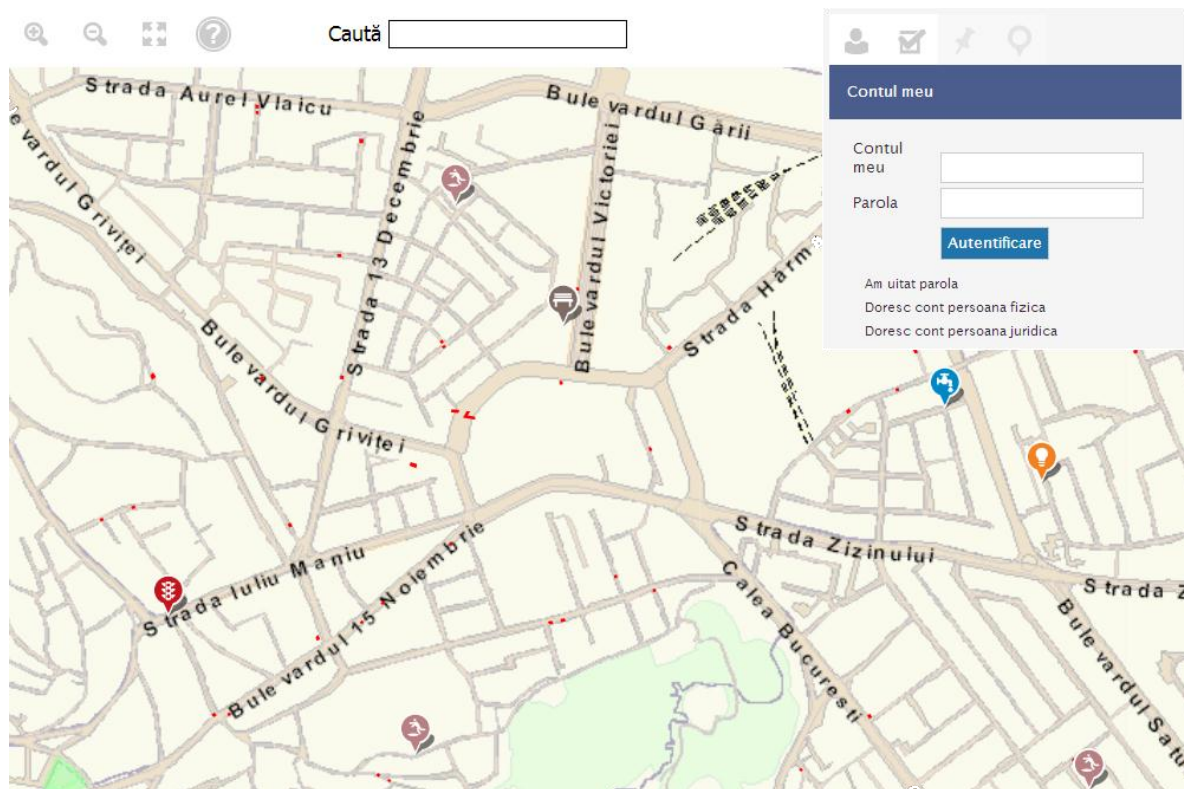

Figure 1. Digital map for positioning incidents
Source: http://www.brasovcity.ro

- Call Center automated telephone system used for the relationship with citizens – it can provide and collect information to/from citizens without human intervention.

Back office applications *to support electronic services offered to citizens:*

- Integrated Computer Application for dispatching emergency calls (other than emergency calls at *112).

The benefits are related more around the city hall by being able to manage problems and incidents that occur. The incidents are mostly related to the provision of public services and, of course, it is important to monitor how it is resolved. All this reported incidents will be presented on the Web page along with the utility companies involved and their solution. Obviously the city hall will receive notification regarding the processing of requests.

- Electronic Geospatial Applications – in relation with the utilities companies and other partner institutions that undertake work accidents and other incidents.

The automating approval of the public interventions in order to correct different network utilities failures constitutes the greatest benefit. Applications for issuing the paperwork will be completed online, along with all the necessary information for the city hall to track the incident, including geographical location of it. Positioning the incident will be done in a vector digital map interface type (Figure 2).

Figure 2. Vector digital map interface

Source: The Brasov city hall

This application is made for resolving the citizen complaints by correlating all work maintenance and work processes in the city with working capacity of partner institutions. Utilities companies have access to daily data and continuous updating on work performed on the public domain.

A big advantage is the reduction of costs for updating the data at the municipality level as well as the time needed for the inspectors for entering and validating data collected from the different citizen services. Clearly, all these lead to the standardization of information for the entire municipality.

- The Electronic Platform for Optimizing Local Government Services CRM type (Customer Relationship Management).

Literature treats the interface between the user and the institution in particular for the private sector. The success enjoyed here should not be ignored by the public institutions (Baltac, 2012). Unified view of all the information about a citizen, regardless of data sources that store this information - to obtain complete information on the person (identification data, history calls or emails placed over time, the state requests of the current state taxes, state property, land and so on) are major benefits of this kind of applications.

- Management and reporting system on performance and business intelligence

The analyses performed via the software solutions are based on specific sets of indicators derived from the processing of information resulting from the exploitation of operational applications. The system allows monitoring and systematic analysis of the proposed indicators thus leading to optimize the institution performance both in terms of internal organizational processes and the relationship with citizens and institutional partners or business sector.

- Developing the electronic archive

All statements, documents and files of any other unit are stored and managed in the electronic archive. Electronic archiving solution services include data backup and redundancy, so there is no danger of loss or alteration. The intention in the future is that all software solutions which will be implemented will be integrated with the already existing electronic archiving solution.

- The Data Platform for exchanging information between institutions

The G2G e-government type (Government to Government) involves implementation of inter-institutional exchange platform. It passed to the creation of a single support data throughout the entire municipality on which to show the workflow progress to the actors involved. This was needed even from the very beginning for standardization the information at the municipality level.

The biggest benefit of this platform is by given the possibility to reduce the time spent by inspectors for entering and validating data.

4. The Results

Following the implementation of this project, the resulted electronic services that contribute to the development and efficient activity of Brasov city hall, are:

- Effective treatment of urgent problems reported by the citizen;
- Increasing the number of immediate responses (information obtained by the use of computer system);
- Quickly forwarding the problems to agencies /departments empowered to solve them.

The added value of the project developed by the Brasov city hall lies in:

- *Local government computerization* which increase the quality of the administrative acts and a deep modification of the relation between the government and citizen;
- *Upgrading the communication* by introducing information technology with direct impact on increasing efficiency of public administration; eliminating bureaucracy and also by increasing the quality of public services. The transition from an centralized administration to a

decentralized administration claim to redefine the G2C relationship type (Government to Citizen) as well as G2G (Government to Government) by using ICT means.

- *Increased transparency* by providing information and public services electronically and, by default, an equally transparent access for all citizens as well as promoting a better information to them through the available "on-line" public services;
- *Promoting a framework* based on the use of electronic means which involve an accelerated and simplified strategic management. All this will be performed on the basis of electronic solutions.
- *Reducing the "direct" interaction* between the citizen and public officials and by that ensuring transparency and impartiality of the way in which public services are provided.
- *A change in the civil servants professionalization.* They will be forced to raise their professional standards contributing by that directly to the reduction of the national and local budget from a whole kind of expenses.

This technical solution is framework, a structure, through which the communication with citizens and economic agents is simplified. The phone calls and e-mails are taken by specialized people and forwarded to specific departments /institutions for solving the problem. Next to the citizens contact center component, this solution will provide information needed for a better road safety management, for increasing public safety etc. In a short, a better relationship with all utilities companies.

5. Acknowledgement

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Law no.161/2003 sets the legal basis of the National Electronic System, with the declared purpose of ensuring access to "public information and provision of public services towards physical and juridical persons."

Official Brasov city Web site: www.brasovcity.ro.