# VIRTUAL ORGANIZATIONS FOR MUNICIPALITIES

Malgorzata Pankowska University of Economics Katowice, POLAND pank@ae.katowice.pl

The main goal of the paper is to present what virtual organizations are developed to support public administration on municipality level. The virtual organizations are visible through their Web sites. Within the last few years, in Poland a unique opportunity for virtual organizations' development has been created. The Parliamentary Act on Access to Public Information for citizens and business was adopted and the rapid development of the Web sites was noticed. This research has been done for Polish municipalities and the research method covers analysis of the contents of their Web sites. The last part of the paper covers answers the question if the internet is really utilized to improve the governance in the communities i.e. towns and villages.

#### 1 INTRODUCTION

Socio-economic organizations are virtual when producing work deliverables across different locations, at different work cycles and across culture. They are also characterized by the temporality, intensity, reciprocity and multiplexity of the linkages in their networks (Powell, 1990). A virtual organization is presented as being a network of independent, geographically dispersed units with a partial mission overlap. Within the network, all partners provide their own core competencies and the co-operation is based on semi-stable relations (Phipps, 2000). Generally, virtuality is an ability of an organization to consistently obtain and coordinate critical competences through the design of value-adding business processes and governance mechanisms involving external and internal elements to deliver differential, superior value to the society. In this paper, virtual community and virtual unions are treated as virtual organizations. They are structures consisting of interrelated components oriented towards achievement of common goals. Virtual means something not physically existing as such but made by software. Virtual reality is in fact a pure simulation. The paper is focused on recognition what virtual organizations and virtual reality objects can be developed and what are their roles in eGovernment at municipality level.

## 2 CHALLENGES OF THE WEB FOR MUNICIPALITIES

Emerging trends in Europe suggest that current thinking on eGovernment is focusing on great quality and efficiency in public services. According to the view, eGovernment needs to be more knowledge-based, user-centric, distributed and

networked. New public services will be required by the EU as well as innovative ways of delivering the existing ones. Secondly, technological advances in the miniaturisation and portability of ICTs suggest that in the future, eGovernment will form part of an ambient intelligence environment, where technology will surround people and serve them on their roles as citizens, customers and professionals. eGovernment should have a strategic focus which includes the achievement of the Lisbon goals, the reduction of barriers to the internal market for services and mobility across Europe, the effective implementation of national policies and regional or local development. Providing user-centred services and cutting unnecessary administrative burden require that information is shared across departments and different levels of government.

The vision of eGovernment in the EU in the next decade defines eGovernment as an ICT tool for better government in its broadest sense. It places eGovernment at the core of public management modernisation and reform, where technology is used as a strategic tool to modernise structures, processes, the regulatory framework, human resources and the culture of public administrations to provide better government and ultimately increased public value (Centeno et al, 2004).

By 2010, European public administration will have made public information and services more easily accessible through innovative use of ICT and through increasing public trust, increasing awareness of eGovernment benefits and through improving skills and support for all users. According to the "i2010 eGovernment Action Plan: Accelerating eGovernment in Europe for the Benefit of All" published in April 2006, Member States have committed themselves to inclusive eGovernment objectives to ensure that by 2010 all citizens, including socially disadvantaged groups, become major beneficiaries of eGovernment and European public administrations deliver public information and services that are more easily accessible and increasingly trusted by the public, through innovative use of ICT, increasing awareness of the benefits of eGovernment and improved skills and support for all users.

European Union initiatives have two basic functions i.e. supervising and stimulating. They are to create a socio-economic environment for eAdministration development. However, not only public services online are important. Europeans are to be involved in governmental processes including eDemocracy and eParticipation at national, province and commune levels. In this way, EU initiative creates opportunities for virtual community development and functioning. The "eEurope An Information Society for All, Communication on a Commission Initiative for the Special European Council of Lisbon" paper defines eDemocracy as a conceptual entity with eGovernment as one of its prerequisite components. Citizen action may then be classified in terms of two quite different approaches: 1) the exercise of direct interaction between citizenry and eGovernment, trying to effect changes in laws and administrative systems and 2) the exercise of information exchange and knowledge building and its dissemination among citizens. In a simple sense, citizens are creating an open and on-going town hall meeting where ideas, agendas, personalities, interests, and beliefs may mix dynamically. They are creating online an arena for public expression, development of opinion and accountability.

eParticipation must be seen as relational (i.e. taking place as an evolving set of relations which develops over time). It has to be constructed as an activity that is not cut loose from a workplace context, even though it is a mediated activity, since the activity itself depends on the concept of full participation, not only by the engaged

citizens, but also by the staff and politicians who are intended to get involved in preparing, supporting and maintaining the event as such. Methods supporting eParticipation must therefore support a system of relations, including also the work situation, and not solely focusing on the support of a single activity of citizen's participation (Kolsaker & Lee-Kelley, 2006). eParticipation must be rooted in experiences, not just generalised rules, also explaining why it is so important to include work practices in real use and in designing situations of evaluations of eParticipation and in relating those contextual dimensions to future development.

In Poland, where the internet usage by individuals (15+) is 26% (2004) and the internet usage by enterprises of more than 10 employees is 85% (2004), the following Acts adapted by the Parliament (Sejm) were extremely important for eGovernment and eDemocracy development:

- The Act on Computerisation of the Operations of Certain Entities Performing Public Tasks of 17<sup>th</sup> February 2005. The Act sets up horizontal/infrastructure programmes for all the sectors of public administration and establishes a common interoperability framework for IT systems in the Polish public sector.
- New Law on Public Procurement of 29<sup>th</sup> January 2004, enabling the development of eProcurement systems for Polish public administrations and allowing the use of electronic auctions for contracts up to €60000.
- ePoland the Strategy on the Development of the Information Society in Poland for the years 2004-2006 prepared by the Ministry of Scientific Research and Information Technology and adopted by the Cabinet on 13<sup>th</sup> January 2004.
- The launch of the Public Information Bulletin (PIB) (official electronic journal on public information) in accordance with the Act on Access to Public Information of 6<sup>th</sup> September 2001. The Ministry of Internal Affairs and Administration is responsible for the PIB.

The right of access to public information constitutes a major component of the democratic standard of open government or openness of public authorities and entities responsible to them. The openness is founded on the transparency of organisations and their operations (Izdebski, 2003).

# 3 SELECTION CRITERIA AND EVALUATION METHODOLOGY

Cyberspace represents a place in which people can communicate to exchange views and to develop socio-economic and political initiatives. Through the new venues, people can engage in many sorts of economic and political activities, such as joining interest groups, voting in elections or participating in forums to solve joint problems that appeared in their town or province.

Content analysis was conducted of a sample of municipality Web sites to provide empirical validation for the deliberativeness for these new socio-economic spaces. According to the Act on Administrative Division of the country, 2489 municipalities i.e. towns and villages were specified in 2004 in Poland. In research, done from October till December 2006, 130 municipalities' Web sites were analysed. The first research question to be addressed was: To what extent municipalities provide information versus seeking information from citizens? The second research question was: What virtual organizations are developed within municipalities and to what extent do citizen use them to exchange opinions as well as incorporate and respond to others' viewpoints? Content analysis was chosen as the appropriate methodology

to address these questions. It is a research technique for making inferences by systematically and objectively identifying specified characteristics within a text. Content of the Web pages and forums' postings comprise a defined context or horizon from which citizen-municipality discussion and collaboration can be evaluated. It is not necessary to know who the participants are to present the conclusions on eAdministration and virtual community development. Content analysis covers Web sites for small communities (i.e. Strykow, 3000 inhabitants, http://www.strykow.pl) as well as for big cities (i.e. Poznan, 570 thousands inhabitants, http://www.wirtualnypoznan.pl/forum/). Full list of the addresses of the analysed Web sites is available upon request.

Resolution of the Act on Access to Public Information of 6th June 2001 caused rapid development of electronic publications named Public Information Bulletin. It is estimated that 98% communities in Poland develop and implement this electronic publication, although only 90% of them have constructed an official Web site for the community. Content of Public Information Bulletin is similar for municipalities, usually it contains important for citizens information on: community authorities, organization of community offices, e-forms of documents, administrative procedures mandatory for citizens and for local businesses, declaration of private properties owned by community authorities, community legal regulations and rules, information on procurements for community, invitations for tenders and auctions, community budgets and land planning. Generally, community Web sites and Public Information Bulletins ensure achievement of eAdministration goals. They enable transfer of top-down administrative information and access to governmental sources of public information, as well as to portals for law interpretation and public administration knowledge dissemination. The citizens have the opportunities to learn about legal acts mandatory for them, to recognize office procedures. They can download forms of documents. They have the possibility to utilize multi-channel communication with Citizen Service Office, where an official can use stationary telephone, mobile, emails. However, citizens still mostly prefer F2F (face-to-face) contacts. The Public Information Bulletins usually ensure investors' and business units' access to databases of tenders considering jobs for public institutions.

## 4 MUNICIPALITIES WEB SITES RESULTS FINDINGS DISCUSSIONS

The paper titled "eEurope An Information Society for All, Communication on a Commission Initiative for the Special European Council of Lisbon" defines citizen interaction as an approach that does not always aim to change current conditions, but rather encourages activities such as the sharing of concrete, personal experiences, the acquisition of administrative information and the monitoring of the functions of public office. These activities, quite within the existing political, legal and administrative framework, may be carried out both online and offline for mutual support and desirable benefits. As for public administration, the internet is also providing information of two kinds. One is mandatory public information such as pertaining to laws, departmental operation, formal procedure requirements and so on. The other consists of personal experiences that are reported by individuals voluntarily. Public information is provided in the official Public Information Bulletin, but virtual communities can be developed for gathering and exchanging personal opinions and impressions. As it was assumed, virtual community is a form

of virtual organization, where citizens are freely involved in participation in discussions.

However, virtual communities are defined in different ways. They can be seen as a local social information infrastructure, providing information over the real community to locals and to visitors of the real community. The virtual community can be interpreted as a communication medium influencing the personal networks of inhabitants of a neighborhood within a municipality. Another view is the virtual community as a tool to improve local democracy and participation; in fact it is the basic idea behind the digital city in Amsterdam (Melis et al., 2000). Virtual community cannot be reduced to any form of electronic commerce or to the provision of online public services as a support of local economic activities. It develops as an experiment with new forms of solving problems and coordinating social life. As a free space to experience and to exchange views, virtual community requires ICT tools as following:

- E-mailing and WWW conferencing;
- Announcement email distribution list;
- Citizens' open discussion forum;
- Newsgroups.

Although people may know themselves, they actively want to maintain community ties. Intensive relations mean for them the belonging to the community. The belonging depends on four systems:

- Civic integration that means being an empowered citizen in a democratic system;
- Economic integration that means having a job and a valued economic function;
- Social integration that means having access to the state support without stigma;
- Interpersonal integration that means having family, friends, neighbours and social networks.

When people chat, get information and find support on the internet, the question is: Do they experience real community or just the inadequate simulacra. The study of the content of the forums allows for the conclusion, that they are not sufficiently well utilized as a medium to involve citizens and officials to act for the community. Within the forum, people need a leader to conduct the discussion, as for example mayor of the town, or a problem which ought to be solved successfully for all the stakeholders involved in the discussion. Shared interests of the people involved in the same virtual community integrate them more than living in the same building. People have strong commitments to their online groups when they perceive them to be long-lasting. There is a danger that virtual communities may develop homogeneous interests. It must be noticed that people do not see that the internet is especially suited to maintaining intermediate-strength ties between people who cannot visit each other frequently. Online relationships are based more on shared interests and less on shared social characteristics. Living in the same non-attractive village is not a sufficient argument for discussion in the forum. The limited evidence available suggests that the ties people develop and maintain in cyberspace are much like most of their real life community. In big city (i.e. Poznan) people noticed the advantage of communication in forum. They got used to communicating online, but small towns (i.e. Krosno http://www.krosno.pl, Rymanow http://www.rymanow.pl) people know how to use it, but they do not see opportunities for application of forum, chat, blogs. Among the reviewed Web sites 24% have installed forum tool, 8% - chat application, 2% - software for blogging.

The internet is still used as a one-way communication channel to inform citizens or to withdraw information from citizens e.g. online questionnaires.

Instead of forum, people ask for photo gallery (e.g. in Rymanow). Films and photo pictures are more impressive and persuasive than text to integrate people around problems or latest events in community. Photo and film galleries seem to be a natural way to integrate citizens in virtual communities. It is worth to notice that the Web derives analytically, not technically from two important stands of media: broadcast media like radio and television and individual communications media like the telephone. As a medium, it holds the potential to incorporate previous focus of mass media - television, audio, radio, text and photography and combine them with the interactivity of the telephone. In comparison with the previous media, the internet has these advantages, that it enables citizens to present themselves and view themselves. The opportunity to see themselves on the internet around the family, neighbours, friends and others more or less known create an irrefutable impression that the entire world has the possibility to view the film or photos. Virtual community focused on photo gallery and the community news develops a potential to stimulate visitors' imagination and interests by engaging in creative communication whilst simultaneously presenting them with a fantastic array of visual and auditory sensations.

15 % of the analysed Web sites offer the virtual walk (e.g. the view from the church tower around the town, Niepolomice, http://www.niepolomice.com/pl/nesw.php the view of main street, Chorzow, http://www.um.chorzow.pl) or virtual excursions (Koscielisko http://www.koscielisko.com.pl) mainly for tourists. The camera viewing of non-attractive place (Krosno http://www.krosno.pl) is not a successful tool for encouraging tourists to visit, but the internet camera placed to monitor sea beach, paths in mountains, places near museums or carparks to evaluate how they are crowded is very helpful to steer tourists movement.

There is a distinction between relatively passive broadcasting and interactive communication where information users are also providers. Those who have experienced richness of interactive communications should understand its ability to empower individuals, inspire collaboration, facilitate learning and enhance patterns of access to people and information. Interactive communication is connecting individuals around the world and helping them to reach cast resources of knowledge and information. It should help municipality officers energize citizen participation and bring people together in collaborative efforts to solve the interconnected social problems afflicting those communities. However, in the discussion people need a conductor, which can be the Municipality Chief Officer or an office worker i.e. human or virtual person.

Virtual reality person i.e. interactive agent technology assistant is to create an automated citizen dialogue to increase citizen knowledge on public administration legal regulations, processes and procedures. It has 24/7 availability and enables organizations to decrease cost while improving citizen satisfaction. Interface agent system as virtual reality human is applied as sales advisor or municipality consultant. So far the citizen assistants have been implemented for municipalities of Botkyrka and Malmö (http://www.kiwilogic.com). Botkyrka's assistant, Niklas, was available on the website 24/7. He understood all the common questions of repetitive information character and could turn the conversation over to Botkyrka staff if he didn't know how to answer a question. Now Niklas is changed into Sofia. This was done when Botkyrka renewed their website and image, as well as introducing voice

for improving the service availability for minority groups further. Sara is the interactive assistant on Malmö's Web site. She has an extensive knowledge base, which is further developed with Botkyrka's quality, service and assistant work as a base. If Sara can't help the user, she is able to turn him over to customer service through chat. So far, none of the Polish municipality Web sites have interface agent implemented. In 2007 the first implementation of virtual municipality officer is done for Siemianowice (http://www.um.siemianowice.pl ). Software agent named Asisso, implemented there, is a virtual adviser from geodesy department for citizens of Siemianowice.

Municipalities are interested in their local integration to better utilize external funds, sponsoring and to better manage local joint investment projects, particularly to reduce the risk of IT innovative projects. eVITA is an example of virtual union of municipalities in rural areas (http://www.witrynawiejska.org.pl/strona.php?p=1173). On January 2004 Partners: Polish-American Freedom Foundation, Cisco Systems and Rural Development Foundation have concluded the Memorandum on joint implementation of "Active Village. Information Society Building - eVITA" programme. Rural Development Foundation became an operator of the programme. The goal of the programme was to stimulate and support civil and economic activity in rural areas using the potential provided by information technologies with a view to facilitate building of exemplary rural information communities in Poland. Practical implementation of the programme took place in 6 rural communities, which were chosen in effect of all-Poland contest. Direct effects of the programme include capacity building of local communities: skills, knowledge, experience and access to ICT, social integration around common tasks, project approach problem solving, increasing knowledge and motivation of local governments to invest in ICT development. Implementation of eVITA pilot program allowed for testing and elaborating the model process of bringing ICT to the village community.

### 5 CONCLUSIONS

Digital technologies cannot be regarded as the panacea to many of the problems which underline the apparent civic disengagement. The use of information and communication technologies and strategies by democratic actors (government, elected officials, the media, political organizations, citizens/ voters) within political and governance processes, national and the international stage requires long-term education. In Poland, EU initiatives and Act on Access to Public Information cause a tremendous development of Public Information Bulletin as an electronic publication for citizens and investors, but the internet is still used as a one-way communication channel. The lack of implementation of e-signatures for citizens excludes the possibility to upload the fulfilled electronic documents and to send them online directly to municipality departments. Instead of that citizens can only send email or identification number to check the status of the deal at municipality office. So far, there is no intensive feedback and lack of common interchange of information among authorities and citizens. According to the research, two forms of virtual organization for municipalities have been noticed i.e. virtual community and virtual union. The research allows for the conclusion that virtual community integration tools i.e. fun games, blogs, video interviews, chats, forums, interface agents are not sufficient to engage citizens in discussions, creation of social relations

and to exchange views. It is not a problem of ICT tool; it is a problem of tradition and culture to be involved in virtual community. Citizens prefer photo and film galleries, eNews and eJournals to be integrated with others in community. They are interested in the development of official as well as unofficial Web sites for community and in publication of eNews. However, citizens have not yet noticed the need to integrate local media i.e. local journals, radio and TV to visualize important municipality problems.

## 6 REFERENCES

- Centeno C., van Bavel R. Burgelman J-C. eGovernment in the EU in 2010: Key policy and research challenges. August 2004. http://www.jrc.es/home/publications/publications.html
- eEurope: An Information Society for All. Communication on a Commission Initiative for the Special European Council of Lisbon 23 and 24 March 2000 (presented by the Commission). COM (99) 687 final, 8.12.1999. http://aei.pitt.edu/3532/
- i2010 eGovernment Action Plan: Accelerating eGovernment in Europe for the Benefit of All, Policy Strategy paper – 25 April 2006, http://ec.eropa.eu/idabc/en/document/5763/254
- 4. IDABC eGovernment Observatory, eGovernment in Poland, 2005, http://ec.europa.eu/idabc/servlets/Doc?id=21020

  5. Izdebski H Access to Public Information

  1. In Poland, 2005, http://ec.europa.eu/idabc/servlets/Doc?id=21020
- Izdebski H. Access to Public Information Act and Open Government Standards, The Polish Yearbook of Civil service, 2003, 113-123.
- Kolsaker A Lee-Kelley L 'Mind theGap': e-Government and e-Democracy. M.A.Wimmer et al. (2006) Electronic Government 2006, LNCS 4084, 2006, 96-106.
- Melis I., van den Besselaar P., Beckers D., Digital cities: organization, content and use. Toru Ishida & K.Isbister, Digital Cities: Experiences, Technologies and Future Perspectives, Lecture Notes in Computer Science 1765, 2000, 18-32.
- 8. Powell W.W. Neither Market nor Hierarchy, Network Forms of Organization. Research in Organizational Behaviour, 12, 1990, 295-336.
- Phipps L. New communications technologies. Information, Communication & Society, 3:1, 2000, 39-68.