SOCIAL NETWORKS AS TOOL FOR E-GOVERNMENT – CASE STUDY OF REPUBLIC OF SRPSKA GOVERNMENT

Abstract – (max 500 words)

Provision of timely and accurate information to citizens and obtaining feedback information from them are crucial for G2C and C2G communication model. Republic of Srpska's (RS) organs and institutions mostly use traditional forms of communication – letters, telephone and fax. Social networks today are presenting cheapest and most affordable form of communication that is efficient and effective for massive number of users. The trend in governments around the world shows increased use of social networks for communication with citizens.

This paper intended to analyse presence of RS's public administration at social networks and to point on trends in this phenomenon. During observed period, research results have shown that the potential of social networks in case of RS's public administration is poorly utilized.

Keywords: Republic of Srpska, Social networks, *Facebook*, *Twitter*, public administration

1. – Introduction

Modern public administration deals with numerous of activities – from preparation of laws and other regulations, through provision of public, social, economic and other types of services [1]. The key element for success of public administration activities is fast and efficient communication with clients. In today's expansion of information and communication technologies (ICT) and Internet, the traditional work of public administration is failing to provide adequate results and to be efficient and effective. Traditional administration is slow, non-transparent and inefficient, while clients' demand for governmental services is in constant increase.

Satisfying the needs and expectations of citizens and entrepreneurs and achieving economic efficiency of public administration are some of the goals of modern, electronically supported public administration. Introduction of electronic government and governance enables easier, more efficient, more transparent interaction and communication between the government and its main stakeholders (citizens, business, other governments and their institutions, as well as whole non-governmental sector). This enables more efficiency and optimization in everyday work of public administration and provision of services to citizens with mutual increase of confidence and loyalty.

In line with this, Ministerial conference of EU member states hold in Malmo, Sweden, during November 2009 resulted with main political priorities that should be accomplished by 2015. These are:

• Citizens and businesses are empowered by e-government services designed around users' needs and developed in collaboration with third parties, as well as by increased access to public information, strengthened transparency and effective means for involvement of stakeholders in the policy process,

• Mobility in the Single Market is reinforced by seamless e-government services for the setting up and running of a business and for studying, working, residing and retiring anywhere in the European Union,

• Efficiency and effectiveness is enabled by a constant effort to use e-government to reduce the administrative burden, improve organisational processes and promote a sustainable low-carbon economy,

• The implementation of the policy priorities is made possible by appropriate key enablers and legal and technical preconditions [2].

Compare to EU institutions, organs and institutions in Republic of Srpska (RS) mostly use traditional communication channels with citizens and business – postal mails, telephone and fax. Use of modern ICT the public administration of RS will be able to transform and improve relations with citizens (G2C), with entrepreneurs and business (G2B), but also between governmental institutions of different level of governance (G2G) both in horizontal and vertical line with main aim to achieve more transparency and efficiency in work of public administration.

The availability of innovative technologies such as social networks has increased the expectations of citizens in terms of responsiveness when accessing all kinds of services on line. There is clearly a need to move towards a more open model of design, production and delivery of online services, taking advantage of the possibility offered by collaboration between citizens, entrepreneurs and civil society. The combination of new technologies, open specifications, innovative architectures and the availability of public sector information can deliver greater value to citizens with fewer resources [3].

The literature sources dealing with development and models of e-government, most represented are five models on development of e-government. The interesting fact is that four of them were published in 2001. Most of these models are descriptive, while some are normative and predictive. Two of models were published in scientific magazines (Layne and Lee 2001 [4]; Wescott 2005 [5]). Famous consulting company Gartner published its views on development models for the first time in 2000 (Baum and Di Maio 2000 [6]). UNPAN (United Nations Public Administration Network) has developed a model (Web Measure Assessment Model [7]) in which each administration goes through five stages of on-line presence. Beside them, IBM Centre for business was also involved in this kind of discussion (Hiller and Bélanger 2001 [8]).

Joint for all of these models is that they predict that the electronic administration will be fully transactional. This will happen upon establishment of system, increased offering of information and increased interactivity level in communication with stakeholders. Transactional stage will provide direct transactions between governments and citizens, both as documents or as funding transactions. This will mean that the communication will be improved as well as the level of confidence in mutual relation and confidence in e-government.

The latest five-stage model is coming again from Gartner [9]. This model arises as consequence of advancing in analysis of factors that are influencing maturing of public administration by using ICT. This model introduces relationship of public administration with social media and networks. In third phase of this model (participatory) is envisaged increased use of social media and networks. Information is published on these social media and at the same time public administration staff is encouraged to actively participate in social media and networks in order to enhance and improve communication with stakeholders.

Social networks today are presenting cheapest and most affordable communication channel that is highly efficient and effective, especially dealing with large number of users. The tendency is that organs and institutions of public administration use various social networks for establishment of communication channel with its stakeholders. The essence of social networks is that they are a place where people from different parts of the world connect. This connection can be the base of previous acquaintances or on the basis of new acquaintances. The first forms of social networks have emerged 90s of XX century.

According to Kaplan and Haenlein [10] there are six types of social media:

- Collaboration project (*Wikipedia*),

- Blogs and micro-blogs (*Tumblr*, *Twitter*),

- Content Networks (*Youtube*),

- Social networking sites (*Facebook*, *Google+*),

- Virtual Worlds (*World Of Warcraft*), and

- Virtual Social Worlds (*Second Life*).

Most popular and used social networks in Republic of Srpska are:

- *Facebook* (www.facebook.com)

- *Twitter* (www.twitter.com)

- *LinkedIn* (www.linkedin.com)

- *Youtube* (www.youtube.com)

Facebook is on-line social network established in 2004 with aim to help students to familiarize themselves. *Twitter* is on-line service for social networking and micro-blogging service, established in 2006 that allows users to send and read text messages up to 140 characters in length, known as "tweets". *LinkedIn* is web site for social networking for professionals, established in 2002 with main aim for professional networking. *YouTube* is web site specialized for sharing of video materials, created in 2005. On *YouTube*, users can: rate videos (assign up to 5 stars); rank videos (by number of views); share videos; favourite videos; add videos to playlists (thus creating new content); comment on videos (by posting comments below video); and reply to videos (by sending message).

Social media are considered as a powerful tool for government to establish and maintain one- and two-ways communication with its stakeholders. Many authors [11] designate that main function of social networks aims at:

•   Sharing information: This function aims to inform citizens on available public services and other information through content created and shared at social network;

•   Monitoring correspondence: This function is introduced in order to observe, analyse and understand what content citizens are sharing, in order improve offered services; and

•   Active participation: This function enables government to create content, respond and collaborate with citizens to improve public services (sharing and monitoring)

Table 1. Social network metric indicators (authors original)

Social network	Indicator	Definition of indicator
Facebook (www.facebook.com)	Friends	Friends in FB are legal or natural persons that are in any relation with the owner of FB profile: family members, friends, colleagues, co-workers …
Twitter (www.twitter.com)	Followers	Follower is natural or legal person that is interested in posts submitted by owner of the account.
LinkedIn (www.linkedin.com)	Contacts	Contact is a person that has some of relations with owner of the profile: colleague, classmate, friend, "done business together" or "other". Contact is usually natural person, but legal persons also can have LI profile.
Youtube (www.youtube.com)	Subscribers	Subscriber is a person that added itself (subscribe) to the channel. Subscriber can be legal or natural person.

There are numerous of benefits that government can achieve using social networks. Some of them can include but are not limited to:

•   Increase of effective distribution of critical information to citizens and communities, whether for emergency response, education or awareness. This is very typical for emergency situations. Spreading of word with social network can mobilize necessary efforts in order to help people in need (for example - natural disasters, war situations, etc.)

•   Increase of public response to public programs and other actions undertaken by government, where input and feedback from citizens will help shape and improve decision making process.

•   Better informed strategies with accurate data will lead to greater efficiency of public administration that can be achieved with implementation of e-services that will be available at social networks.

•   Increased use of innovative tools and services at social networks will increase level of digital literacy among population, especially in small businesses and entrepreneurs that drive further innovation.

• Social networks have been seen as drivers of information society development, and as such deserve full attention of public administration in order to facilitate e-inclusion and other barriers in line with the implementation of information society in the country.

2. – Methods and materials

The aim of this research was to determine how many institutions are using these modern tools and technologies for operations, and do they use it at all? The assumption is that these tools and underused and those that use them are not doing it efficiently. The research was carried out through a combination of desk-research and a review of web sites of institutions in question. The first involved the consultation of national government policy and strategy documents, as well as existing international studies on the issues of interest.

Most of literature consulted was found on Internet as main medium for electronic communication and future of business. This research method was used to review domestic and foreign literature, but it should be noted that the volume of domestic literature in this area is quite small and limited to a theoretical interpretations of general knowledge about e-business and e-government. Very few research papers that approach the problem of e-governance in Public Administration of the Republic of Srpska and even less papers in reviewing of effects of social networks as tools for e-services. The first phase of research, where this was the most used method, is extensively done in the period from June to August 2013.

Second phase of research was conducted in period until December 2013 including data processing and formulation of conclusions. The data on presence of public administration on social networks were collected by reviewing four previous mentioned most important social networks: *Facebook*, *Twitter*, *LinkedIn* and *YouTube*. In order to perform this review it was necessary to investigate number of public administration organs and institutions of interest, as well as their electronic addresses and web presentations.

To make analysis and draw conclusions, it was necessary to determine metric indicators presented in Table 1. In order to obtain more complete picture on effects of social networks in public administration, it is necessary to approach each organ and institution individually and to review their statistics as account owners. Only access as account owners will provide full insight in communication effects.

Third phase of research was performed during period 17-28.5.2014. This phase was used in order to observe trends and change of indicators due to mass flooding that hit Bosnia and Herzegovina, Serbia and Croatia. The results of research will show that emergency situations increase interest in use of social networks on both sides – on side of government for publishing of timely and accurate information, and for citizens in order to reach accurate information on actual situation and to connect with their relatives.

3. – Results and discussion

The analysis is implemented in period July – August 2013 [12] with aim to determine the presence of Republic level institutions at social networks. For the research sample were used sites of 84 institutions that met Agency for Information Society in RS (AIDRS) criterions for analysis on-line presence of Republic institutions [13], and these are categorized as shown at Figure 1.

After the analysis, it was concluded as presumed. Vast majority of analysed institutions (84%) is not using social networks, while only 14 institutions (16%) it does. Figure 2 shows representation of selected social networks by Republic institutions.
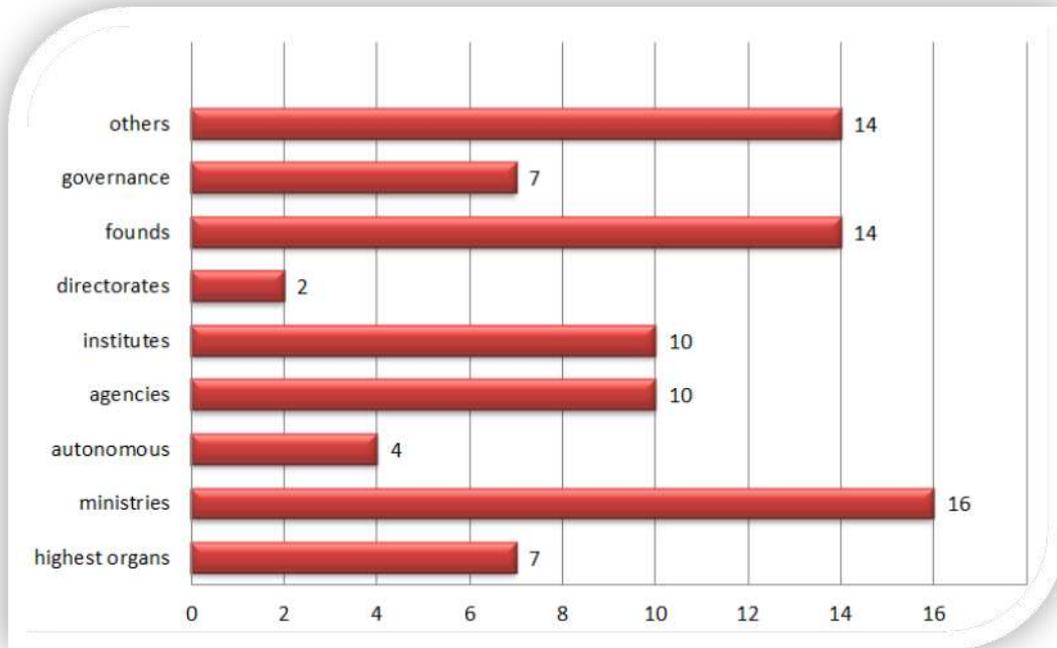

Figure 1. Number of analysed web sites per institutional category (authors orig.)

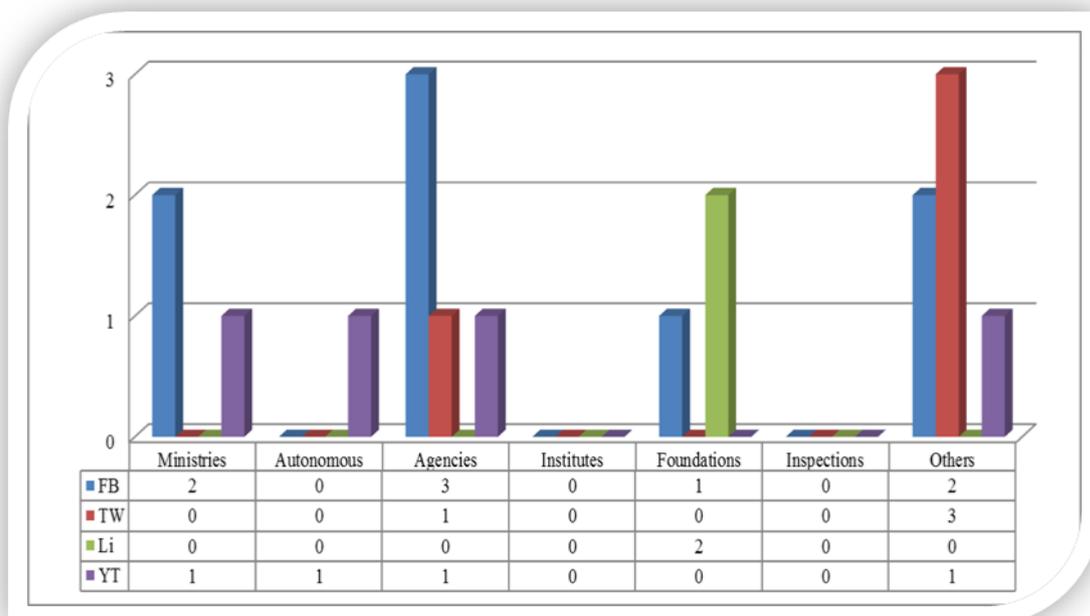|	Ministries	Autonomous	Agencies	Institutes	Foundations	Inspections	Others
FB	2	0	3	0	1	0	2
TW	0	0	1	0	0	0	3
Li	0	0	0	0	2	0	0
YT	1	1	1	0	0	0	1

Figure 2. Use of selected social networks per category of institutions (authors orig.)

The most frequently used social network is *Facebook* with 8 institutions using it. Second position share *Twitter* and *YouTube* with 4 institutions per each social network, while least used among selected networks is LinkedIn with only 3 institutions that are using it.

Although *Facebook* is most represented social network among Republic institutions, the use of it is very limited. Namely, from the analysis of posts it is obvious that posts are not regular but more occasional and linked to major events happening in country. Ministry of Internal Affairs account was created in 2012 and since then it managed to attract 4551 friends. During the flooding last weeks, this account was very busy posting vital and important information on missing and found persons, distribution of humanitarian aid, status of rescuing etc. Second ministry using *Facebook* actively is Ministry of Family, Youth and Sport with 1155 friends since 2012. Ministry was using this profile intensively in last week in order to attract young people helping flooded areas with collection and distribution of humanitarian aid on voluntarily basis.

Although created to be facilitating agency for introduction of information society in RS, the success of AIDRS is not visible and promising. Opposite to expected, on their Facebook profile there are only 289 friends and the post are occasional and not frequent 2-4 per month in average.

An interesting fact is that Official Gazette of Republic of Srpska (Službeni glasnik RS) has registered *Facebook* profile in October 2012 and today counts more than 1700 friends. They are regularly posting information on issued publications, as well as on other publications. In period for subscription, they publish open invitation for subscription. Each time new issue of Official Gazette is published, the post being published with link to it. However, it requires a prior authorization to view content. Only subscribed users can view the contents.

Government of Republic of Srpska is having official *Twitter* account registered with more than 2900 followers and more than 1600 tweets (date of collection 28.5.2014.) The profile is having regular update with most important information from Government of RS. It is possible to find also official hymn of RS as video file. First tweet was posted in 2011 and all relevant information have link to governmental site with more details on topic. Some of citizens tried to post questions, but the answer was to look for direct contact in relevant ministries.

Ministry of Internal Affairs is having *YouTube* channel since year 2012, where it is posting video clips of actions that this Ministry is undertaking for preservation of order and peace. On 28.5.2014 *YouTube* channel of this Ministry counted 14 video clips and 488 subscribers with more than 250 000 views. Although the number of subscribers is insignificant, it is interesting number of views. Using simple calculation (250000/488) it seems that one subscriber has seen one post for more than 512 times. This ratio can be explained with one phenomenon – number of subscribers is not exact indicator and cannot be valid for evaluation of effects of *YouTube* effectiveness. It means that a lot of unsubscribed visitors have seen these clips.

Due to the recent situation with severe flooding in RS, Government of RS created also *YouTube* channel with aim to publish press conferences and vital information related to flooding catastrophe. Since the account was created on 17.5.2014 and it has only 23 subscribers. Despite this fact, 61 video was posted until 28.5.2014 and the clips were seen 1717 time, average 28 times per clip. Here, one can apply the same logic as in previous paragraph on number of subscribers and persons seeing the clips that are not correlating.

From the analysis is obvious that public administration in RS is not using *LinkedIn*, except Republic of Srpska Investment-Development Bank (IRBRS) and Environmental Protection

and Energy Efficiency Fund of the Republic of Srpska (EPF). There are several reasons why is this happening but main one is the nature of this social network – professional linking. IRBRS recognized this social network as possibility and place for promotion of its activities and linking with potential partners. At the end of 2013 IRBRS had 61 and today it counts 106 followers. This means that in some six months period IRBRS increased number of connections for almost 50%. EPF is showing similar trend. In December 2013 analysis, they counted 37, while today that number is 51 followers. This just shows the power of professional social network, as place where business can find interest, not only in linking but also in following of actual trends and movements.

4. – Conclusion

Social networks are very useful tool for governments in order to establish two-way communication with its stakeholders (primarily citizens and entrepreneurs). This is very important for processes of e-consultations and assistance in decision making process. Social networks are useful tools for establishment of sound dialogue and for gaining of confidence that each government needs in relations with its citizens.

The presence of the RS public administration at both levels of government is at a very low level. Only 14 institutions, out of 84 analysed, have some form of representation at social networks. These are non-systematic and unstructured attempts to use these free-of-charge platforms for mass communication, but without significant impact on stakeholders.

The research that was conducted by end of 2013 and in May 2014 showed that most used social network by RS public administration is *Facebook* (8 institutions) then *Twitter* and Y*ou*Tube (with 4 institutions per each social network) and *LinkedIn* (with only 3 institutions represented) It is evident that institutions started to use these social networks, but in *ad hoc* not systematic and structured approach.

This conclusion is in line with the research performed by team of Spanish researchers on use of WEB2.0 technologies and social networks by local governments in European Union (EU) [14]. The team concluded that majority of examined 75 local governments in EU are using *Twitter* - 32% of governments have official Twitter profile. The least popular is *LinkedIn*. This seems logical taking into consideration the nature and purpose of this social network which is professional networking. Surprisingly, *Facebook* profiles have registered only 17% local governments, while *YouTube* channel have 29% of examined local governments.

According to model of maturity of e-government produced by Gartner in 2010 [15], one can conclude that Republic of Srpska government is still in second (development) phase. The main characteristic of this phase is established synergy with social networks as the communication channel with stakeholders. The government registers *Facebook* or profiles at other social network and links it with own Web site. However, editing pages on social media is limited to publishing announcements, notifications and basic information. The aim of this phase is to open work of public administration to stakeholders in order to improve transparency and availability of public administration.

It remains on public administration at both levels of governance in RS, taught with examples of advanced countries, to take advantage of these free tools and platforms for promotion of their goals and ideas, and to communicate it to citizens timely and updated information. A particular advantage is that these tools and platforms can be used to improve communication with the stakeholders for research purposes – to hear "*vox populi*" and to learn knowledge of

citizens and their participation in decision-making processes, strengthening of e-inclusion and e-democracy.

Recent events in Bosnia and Herzegovina (flood) have proven the assumption that emergency situations are increasing use of social networks on both sides – by governments and by citizens. Some social network profiles have recorded increase of even more than 50% of followers (or friends) due to increased demand for timely and accurate information.

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