Evaluation of E-Participation in Social Networks: Russian E-Petitions Portal

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Abstract. Methods and Technologies of e-participation are an important component of Information society and e-governance development programmes. E-petitions portals are one of the mechanisms of e-participation. They provide the opportunity for citizens to influence the process of decision making at federal, regional and municipal levels. At the same time issues of the impact of e-petitions on traditional way of political decision making still remain unexplored. The article describes the practical case of an official e-petition portal development in Russia. The study aims at identifying the demand for electronic petitions portal in Russia in three main areas: 1) the dynamics of initiatives' publishing across federal districts; 2) citizens' discussion on Russian e-petition portal in social media; 3) correlation analysis of citizens' demand indicators and citizens' satisfaction with authorities work and openness, as well as other economic indicators.

Keywords. e-participation, assessment, social networks, e-petitions portal, correlation analysis

Introduction

With the expansion of e-governance technologies, e-participation mechanisms become playing important role in political life. In international practice the issue of development of public e-participation mechanisms for political decision-making is no longer considered to be new. In Russia the electronic portal for public applications started to operate in 2013, therefore it is only now that it has become possible to see how the process is advancing.

Moreover, the existence of this portal itself doesn't give any information about its effectiveness and about the demand of e-participation. The research group conducted the survey of Russian e-petition portal with the purpose to measure citizens' demand of the portal and its' functions and to find connections between the portal usage and socio-economic indicators.

1. Heading Literature Review

E-participation, e-governance, online services, which are aiming to become the obligatory forms of interaction between government and citizens, are gradually becoming institutionalized in contemporary society. There are many examples of e-government development analysis in research practice.

At present the blogosphere and other social media researchers use social networks as a source of information about citizens' attitudes to government and their demand for e-government services. In particular, Sobkovitz and colleagues [1] used the method of social media automated content analysis to identify new trends in inclinations, moods, attitudes and expectations of interested groups or of society as a whole. As a result, they have presented a model of public opinion formation through social media. They explored the online community and social networking of immigrants moving to the Netherlands who are in need of assistance in obtaining such public services as residence registration, receipt of state allowance, admission to an educational institution, etc. The study confirmed the relationship between Internet discussions and the progress of real social processes.

S. Alathur and colleagues have identified several forms (channels) of e-participation, which may become the subject of research [2]: ICT development to unite citizens and create online education communities; ICT use for group conversations and discussions; ICT use to attract supporters, voters; Social media for voting and polls; Economic forums, e-business; Knowledge sharing platforms; Networks as monitoring systems. R. Medaglia analyses publications on e-participation, identifying them as belonging to a single scheme consisting of the following categories: e-participation activities, e-participation actors, e-participation effects, contextual factors, e-participation evaluation [3]. O. Fedotova and colleagues examined the relevance of the e-participation platform for citizens in Portugal and revealed that local e-participation initiatives have a predominantly informing character and there was a lack of high level initiatives [4].

The pilot project called Hub Websites for Youth Participation in Estonia, Germany, Ireland and the UK [5] is also worth mentioning. The study proved that, despite the importance of personal, face-to-face communication of citizens in discussions, debates on bills and decision-making, online participation tools are able to exert influence on democratic processes in the society. Researchers V. Lysenko and K. Desouza studied the potential of social media usage in Moldova and came to the conclusion that the skilful use of ICT may not just ensure the participation of citizens in the political life of the country, but also may drive an Internet revolution without any involvement of organizations and groups, which are not represented on the political scene [6].

A. Prosser investigates e-participation on the European Union level [7] with the focus on legal basis and technical possibilities for citizens participation. L. Bershadskaya and colleagues conducted comparative analysis of the USA, the UK and Russian e-petition portals and distinguished strong and weak traits of each portal [8]. S. Hale, H. Margaretts, T. Yasseri studied the petition growth on the UK web-site [9] and found out that most successful petitions grow quickly and the number of votes cast for a petition in the first day was a significant factor in explaining the overall number of signatures a petition received during its lifetime. R. Lindner and U. Riehm studied 571 traditional and 350 e-petitioners in Germany and indicated that both petitioner samples were characterized by an above average level of general political participation and Internet use [10].

A review of the scientific research allows one to summarize that the development of e-participation mechanisms constitutes a global trend. At the same time there is a lack of studies focused on the demand-side of e-petition portals.

Most surveys on e-government development in Russia focused on analysis of websites (web-monitoring), statistical surveys of their content, etc. At the same time

such important aspects as citizens' attitude to existing services and their need for new services remain unexplored.

Social media, being a popular and powerful communication instrument, can become the subject of research and a source of answers on urgent questions. The E-Government Center at ITMO University (St.Petersburg, Russia) conducted a special survey in this area in 2013-2014.

2. E-Petition Portal- "Russian Public Initiative"

E-participation technology is an important component of Information society and e-governance development programmes and e-petitions portals are examples of e-participation mechanisms.

In May 2012 the Decree of the President of the Russian Federation established the creation of information disclosure system about official regulations projects, the results of public consultation and putting of all the listed information on a joint site [11]. The same decree was instructed to adopt the concept of "Russian Public Initiative" (RPI), creating conditions for starting April 15, 2013 a public presentation of the citizens' proposals via a dedicated resource on the Internet. The concept provides the consideration of proposals supported of at least 100 thousand people within a year, after the approval of the expert working group with the participation of members of Duma, the Council of Federation and the business community. The development of e-petitions tools at regional and municipal level is the next step of the process. The concept of implementation of the above instructions was adopted in August 2012 [12].

Russian e-petition portal appeared in April 2013 and got the name "Russian Public Initiative" (https://www.roi.ru) because it's supposed to collect citizens' initiatives on federal, regional and municipal levels. Thus, a citizen may vote for the initiative in their region or municipality, and the range of potential initiatives becomes as extended as needed. To cast a vote on the Russian Public Initiative Portal it is required to register on the Common Government and Municipal Services Portal. This procedure is more time consuming as it requires the pre-registration and authorization.

The mechanism of working with applications is the following: once the petition gains 100,000 votes, it is submitted to the governmental working group consisting of 34 people. The expert group includes representatives of executive and legislative bodies, business community, non-profit organizations, scientific institutions and foundations.

In Russia, combining the responsibilities of legislative and executive branches has been attempted, that is why the expert group includes representatives of both branches. The portal demonstrates a very high level of anonymity; neither the applicant's name, nor the data about those who voted for petitions are not available to others.

The portal is notable for its clear separation and representation of initiatives on the federal, regional and municipal levels. More than that, RPI portal provides an option to vote against the initiative. The total number of votes is obtained by summing just the votes for the initiative, but the expert group receives the information about the total number of votes against the initiative as well.

3. The Research Methodology & Results

In accordance with international practice, the authors chose systematic approach for research and description of Russian e-petition portal. The research was focused on Russian Federation with its separation into 6 Federal districts. Several data sources has been selected for the analysis:

- ─ statistics of RPI functioning,
- ─ the results of social media analysis (discussions about RPI),
- ─ federal statistics on citizens satisfaction with the authorities work, data on income level;
- ─ results of public opinion polls held by Russian Fund "Public Opinion".

The study is aiming at identifying the demand for electronic petitions portal in Russia in three main areas:

- ─ the dynamics of initiatives' publishing across federal districts,
- ─ citizens' discussion on RPI in social media,
- ─ correlation analysis of citizens' demand indicators and citizens' satisfaction with authorities work and openness, as well as other economic indicators.

The hypothesis of the study was that there is a relationship between the peoples activity on the RPI portal and their filling of quality of life and evaluation of the authorities' performance.

The study revealed the positive dynamics of initiative publishing on RPI during the last year (fig. 1) with a high level of interest's growth in the first months of portals' operation.
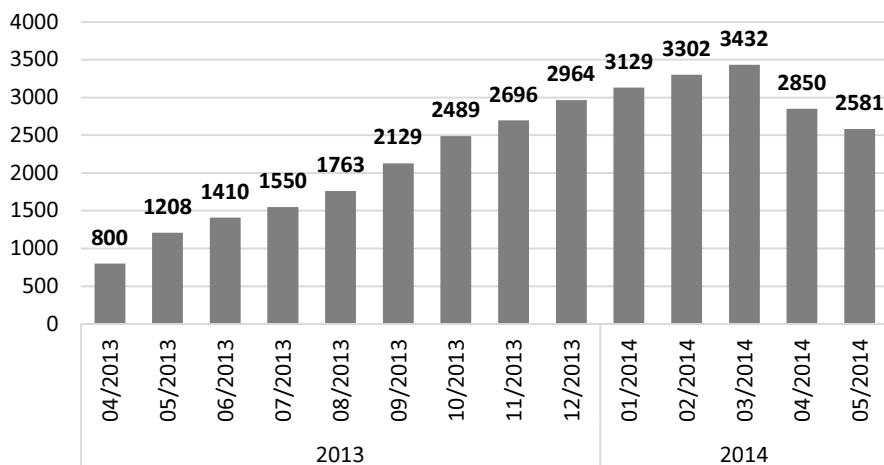

Figure 1. Dynamics of petitions publishing on RPI portal, 2013-2014

Today the portal collected almost 2,5 thousands initiatives and only 7 of them collected the required number of votes and were discussed in the expert group and legislative bodies.

Downward trend in the number of published initiatives that began to emerge in April 2014 can be explained by the fact that the initiatives did not achieve the required threshold of votes throughout the year after its publication began to be sent to the archive and by the decline in citizens' initial interest to this portal.

The first initiative which collected the required 100 000 votes was the initiative prohibiting officials and employees of state corporations and to buy cars, worth over 1.5 million roubles. It took 3 months to get the required number of votes.

Today there exist more than 30 computer-aided tools of searching and analysing of information from social networks. The social media monitoring service IQBuzz (http://iqbuzz.ru/) was selected as the research instrument as the most functional and suitable to work with the Russian-speaking audience.

In course of the survey the keywords related to RPI and its options were selected to be used by web-crawler for collection of all posts related to research topic and formation of data set consisted of all documents, information about the actors (age, sex, the auditory of blogs etc.) and their roles (author, follower, reader).

Social media analysis also identified the growth of citizens' attention to RPI during the last year. Fig. 2 represents the dynamics of discussions from October 2013 to March 2014. There were a little activity of citizens' discussion before this period but it doesn't exceed 2-5 messages per day.
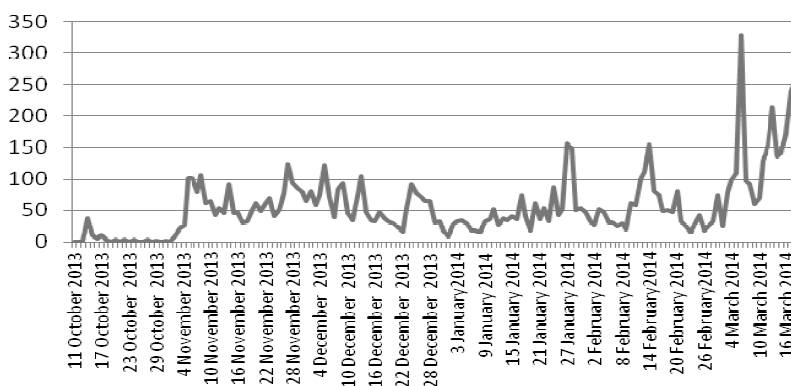

Figure 2. Number of posts in social media on RPI topic (IQBuzz), 2013-2014

The study on social media revealed that total audience coverage involved in RPI discussions reached 15,6 mln people. During the research period 6868 unique authors published messages on the related topic. The average amount of documents on RPI topic was 21,6 original messages per day. The average number of posts per 1 author reached the meaning of 1, 3 messages per day.

Correlation analysis of citizens' discussions and socio-economic indicators revealed the following trends (table. 1):

1. There is a strong relationships (correlation coefficient) between the number of Internet users in region and the number of authors who posted texts about RPI in social media from different regions (0,92) as well as between the number of Internet users in the region and the number of initiatives published on RPI portal (0,82).
2. There is a strong inverse relationships between the number of initiatives published on RPI portal per Internet users and the number of Citizens satisfied with the

authorities' openness (-0,88) as well as between the number of authors posted texts about RPI portal per Internet users and the number of Citizens satisfied with the authorities' openness (-0,73).

3. There is a strong relationship between the level of citizens' income in the region and the number of initiatives published on RPI portal (0,69) as well as level of citizens' income and the number of authors who published posts about RPI (0,65).

4. There is an inverse relationship between the level of people's happiness and their activity on publishing initiatives and posts (-0,33 and -0.38)

Table 1. Indicators of citizens' demand to RPI, 2014.

Federal districts / Russia	No. of Internet users (Mln)	No. of initiatives published on RPI portal	Authors published posts about RPI portal	Citizens satisfied with the authorities (%)	Citizens satisfied with the authorities' openness (%)	Income level (rub/month)	% of citizens who feel that they are happy
Central	11,26	150	1221	39,2	25,7	29721	69,89
North-West	1,52	13	515	31,8	25,2	23403	72,20
Volga	5,65	57	426	37,3	25,1	19596	73,93
South	0,98	26	182	34,6	25,6	18602	75,33
The North Caucasus	0,67	2	40	32,5	26	17076	71,40
Ural	1,10	30	244	41,6	24,7	26174	68,00
Siberian	2,70	13	291	42,8	27,8	18322	71,92
Far Eastern	0,25	31	100	36,7	21,8	25325	69,63

4. Conclusions and future work

The research has led to the conclusion about the existence of relationship between the number of Internet users in the regions and their activity in the portal RPI. The additional hypothesis about the link between the citizens' activity on the portal and their assessment of the authorities' work has been proved also. The research revealed that if citizens were not satisfied with the authorities' openness it means their intention and will to publish petitions on RPI.

The research revealed that the happier people are, the less they publish initiatives on the portal. With increasing of citizens' income in the region, their interest in publishing posts about RPI is growing. This fact shows that people getting closer to the middle class are becoming more concerned about issues of social life's organization, inadequate legislation etc. and want to improve current conditions by publishing e-petitions and voting for them.

The study determined that social networks could be the sources of data for detecting citizens' interest in different topics. Citizens' discussions in social media about Russian e-petition portal correlate with the level of their activity on portal itself. At the same time, it's important to monitor both official petitions portals (such as RPI

portal) and similar local initiatives. Collected data could show the impact of institutional factor (legislation, rules and procedures) on the use of these portals.

Considering the problem of measuring the impact of e-participation projects, we should agree with B. Novek, which asserts that the legislative framework for transparency, by itself, has not produce a transparent government. "The introduction of new technology and new ways of thinking about information geared to groups may yield a more open administration. Similarly, the legal framework for participation has enshrined the right to participate in theory but not in practice" [13].

For further analysis of the development of e-participation projects in Russia and, in particular, the effectiveness and efficiency of their performance, it is advisable to apply the "Reference Framework for E-Participation", offered by S. Scherer and M. Wimmer. The reference framework for e-participation aims to support different target groups to communicate with other project actors, e.g. politicians, system developers, moderators – i.e. persons with different technical and political background and having a different perspective on an e-participation project [14].

The authors intend to continue their study of social media in relation to the topic of e-participation to determine the need for and the effectiveness of new technologies of interaction between government and civil society.

Completed research revealed the necessity to improve the text tonality of posts identification and engagement of linguistics experts. The further researches will be focused on political discussions and decisions on law adoption in conditions of citizen's benevolent or negative attitudes towards it. These conditions are tightening requirements for the use of the computer-aided assessment of text tonality and the interpretation of results obtained with their help.

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