



## **Structure, Types of Users and the Practices of Online-Social Networks as a Field of Political Practices**

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### **ABSTRACT**

The aim of this study was to review of online-space as a field of political practices. Using the methods of mathematical modeling, network analysis, theory of the public sphere and the methodology of the social graph, the authors have substantiated the concept of online-space, web 2.0, web 3.0 from the position of political studies; investigated the practice of social and political mobilization of citizens and online-social networks around the world. There have also been identified and described these types of online-users of social networks as opinion leaders, sensors, implementors, readers, reputational players. "Opinion leaders" launch wave effects dissemination of information and, as a result, change the field of information and news. "Sensor" - people who collect relevant information within a particular semantic concept. "Implementors" - people who have run blogs, the role of implementer can be selected by the user both consciously and no. "Readers" - constitute the majority in online-space and in a single online-social network, they are constantly in the online-social networks and do not generate public posts. "Reputational players" - are the representatives of business and authority. Considered user types common to all online-social networks and do not depend on geographical reference and socio-political situation, but only different patterns of behavior and communication that these types of users form between them, which was confirmed by the authors in the course of research projects on a case study. Case-study "Blogger versus Garbage" describes the features of each type of users and the connection between them.

**Keywords:** The Internet, Online-Social Networks, Network Analysis, Public Policy, Social Graph, Online-Space, Opinion Leaders, Sensors, Implementors, Readers, Reputational Players, Political Condensate, Political Mobilization  
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### **1. INTRODUCTION**

Contemporary processes of globalization, which is a consequence of the development of science and technology, led to the fact that the notion of distance has become relative. This phenomenon has become known as the phenomenon of the time-space compression (Perfil'ev, 2003). In society's and individual minds the perception of the distance becomes another, despite the fact that physically distance remains the same. In the space of transmission and receipt of information time-space compression occurs with greater intensity, in the field of information communications concept a distance of almost lost its meaning. Almost replacing the concept of distance notion of time, which will certainly promote information and communication technologies. The development of information and communication technologies has led to the

emergence and development of global computer networks. The Internet is the largest network in the world and claims to be a global information space, which primarily cyber character. On the one hand, the Internet - is a means of communication, and on the other hand, the Internet - is a special information environment.

Social environment of the Internet, which manifests itself in the influence of society on the creation, use, reproduction of content, and its subsequent impact on the social development cannot be separated from the Internet. Accordingly, it is necessary to describe the space, which includes not only the Internet, but also its social environment, and in relation to the socio-political space - the reproduction of social and political practices. This space is online-space. The main and the most part of online-space is the Internet, which is more than other components determines the technological

properties online-space (there is no hierarchy, open access, focus on personal users), and applies to online-space communication, information, service function. Manifestations of online-space in economic practices (online payments), territorial (RuNet), sociopolitical (crowdsourcing political practice) conditions takes online-space on a much higher level than just the functioning of the global information space; its impact on society is much more multifaceted and wider. Online-space becomes a field of political practices and has two main features - interactivity and hypertextual. Interactivity is understood as a principle of organization of the system, the result is information exchange system elements. Hypertextuality associated with the concept of hyper web - the technology of information presentation in the form of relatively small blocks are associated with each other (Glossary). The specific behavior of the written text in hyper web taken to signify the term of hypertextuality. Under hypertextuality understood, according to Dedova "a set of specific features in the presentation of hypertext, structuring and accessing information" (Dedova, 2001).

The chain of events in different countries around the world in 2009-2012: Iran in 2009, Twitter has become a platform for the coordination of anti-government demonstrations (Twitter and YouTube...); in Tunisia in 2010, online-social network Facebook and Twitter were used not only as a platform for co-ordination, but also as a way of securing international support for the opposition; researchers of 2011-2012 events in Egypt noted that the first phase of the protests is not coordinated to any political organization, protests arose in Twitter and Facebook and were produced by youth (Ryabchenko, 2011) in 2011 in the role of Syria online-social networking wore more destructive nature, they have become the main source of unverified and provocative information to the field of information and news in general (La Syrie part...); in 2011 in the UK namely Twitter and Facebook have become platforms coordination thugs, as well as the main tool to find them and arrest special role played online-social network "BlackBerry Messenger," designed specifically for users of some of the most popular phones "BlackBerry" (Halliday, 2011); in Russia in 2011-2012 online-social network produced the emergence of a new actor of public policy - the "League of Voters" - all these events have launched a new process of online-discussion on the role of space in the socio-political processes, in particular, the role of online-social networks and online-network communities (Ryabchenko and Miroshnichenko, 2012).

## 2. THEORY AND METHODOLOGY OF THE STUDY

Structure and functionality of online-space as a field of political practices driven by its digital nature (willingness and openness to change) and "ethos web 2.0" (which refers to the culture of sharing, editing, re-editing, production, re-production, creation of new forms relations). The term "web," in fact, means content online-space - Internet content. For example, web-design gives the Internet and online-space in general appearance.

Naybet and Rhoda believe that modern expanding virtual social spaces based on such priorities as: "The creation of a favorable

attitude reception for users; effectively meet the general and specific objectives; help to establish trust relationships with other actors; provide social transparency as a guarantee of the establishment of common values; provide context information that concerns the past and present, and the general rules of classes; provide opportunities to build its own identity. Keeping these priorities involves the use of such mechanisms as social motivation, common views, trust and control" (Naybet and Rhoda, 2009).

"Web 2.0" is defined as a set of technologies that give rise to the information concept of online-space, the basic idea of which is active in multilateral communication, creating and promoting content. "Web 2.0" provides horizontal interaction in which there is a transition from a small to a large strong cooperation weak cooperation, which allows to attract a large number of people to perform small tasks, which is part of a multi-level complex project (for example, the creation and development of the project "Wikipedia") (Gnedash and Ryabchenko, 2011).

"Web 3.0" - is a technology based on technology "web 2.0," but in which the created content is handled by experts engaged by the same communication system, as in "web 2.0," community of experts becomes mobile open system whose main purpose - to improve the quality of content. In addition, it is assumed using "web 3.0" alignment subsystem metadata in online-space. Metadata subsystem will provide the basis for constructing the semantic web in online-space, leading to the spread of distributed computing, cloud services, web-service interaction without human intervention (Ryabchenko, 2011).

Based on the above, we define the online-space - a single socio-political space defined systems, designed with the help of technology users "web 2.0" and technology based on it "web 3.0," and significantly expands the potential of information and communication processes that take place in this space. Since online-space has a certain potential to change the social space, understood as a social space in the interpretation of Bourdieu, we must consider the online-space as part of the political world or the political process, being powered by a complex set of interactions between online- and offline-subspaces social space.

Various subjects of different online-social network or blog platform as structural elements of online-space are both consumers and socially significant information sources, while creating its own system of protection and identities, which is key to a democratic society. Of course, the defining property of online-space is not the availability of technical means of communication, and the ability to use them in conjunction with "the ability to not be limited in any logic, requiring, inter alia, a degree of independence, which implies the pursuit of equality of equals" (Balakirev, 2006).

In online-space functionality prevails over structuring, the first defines and develops the second. It is characterized by horizontal interaction that allows you to quickly and optimally distribute information.

Technology "web 2.0" and "web 3.0" can not only change the relationship between people and introduce new forms of

governance and achieve the result, but also to change the level and quality of political participation<sup>1</sup> is because online-space is increasingly becoming a factor which the life of society, affecting on politics, the economy and other spheres of public life. As a consequence, increases competition within the online-space between the different socio-political actors, which in turn leads to a shift in policy from the social reality of online-space.

Online-space - a space that extends the socio-political sphere and to which it makes new structural elements and political practices.

Samuel Huntington argued that the main difference between developed and developing countries is not the level of welfare, education and health, and in the level of political institutionalization (Huntington, 1968). Ability to create political institutions determines the feasibility of public interest. In this sense, the institutionalization of online-space will be seen as a process of creation and the formation of relatively stable forms of public communication and distribution of social resources, the main purpose of these forms - regulation of public life, and, consequently, the creation and development of public policy and the public sphere. The pivotal moment in the process of institutionalization is the creation and consolidation of new social and political practices as a result of social interactions.

Describing the process of institutionalization of online- space as a field of political practices, it is necessary to take into account that the political process in this case should not be considered as a chain of successive stages (first online-space arise political practice, then they are institutionalized, then the processes of their legitimation), and as process of parallel development of these stages, as political practices are the result of political institutionalization and political institutions are determined by cash images and symbols<sup>2</sup>. The degree of the impact of political institutions on the effectiveness of legitimation largely depends determined constellation of political actors.

In the Russian segment of the online-space there is no clear separation of users who uses only a blogging platform, and those who use the online-only social network. Usually, people use blogging platform and broadcast content to online-social networks, or *vice versa* - thus combining blogs and online social networks into the overall blogosphere, forming in her online networking community. In this regard, the blogosphere is interconnected blogs (including platform features online social networks, for example, Facebook), components of the dynamic information cover of online-space. Blogosphere created collectively, politically oriented which participants as sources of information rely more heavily on a wide range of news and a variety of content that appears in RuNet, and to a lesser extent on government sources.

1 Political participation is - all kinds of citizen participation in the political process with a view to influencing decision-making institutions and different levels of the political system.

2 Guided symbols and other mental constructs, people in social interactions create reified political structures, more stable and more relevant concept of "political institution".

Russian blogosphere as a system of online space is used for discussion of matters of public interest and obviously require collective action and recognition. This leads to the fact that the blogosphere is used not just for policy discussion and criticism of the government, but also to mobilize political and social activity.

In September 2013, "Public Opinion Foundation" conducted a study "Why people use the Internet?" interpreting the results of which can be concluded that most users online-space use it to (Why do people...):

1. To search for information - 73% of the daily online-audience;
2. Read the news - 64% of the daily online-audience;
3. Communicate online-social networks - 63% of the daily online-audience.

If we compare these data with those obtained in studies of the dynamics of Internet penetration (Internet in Russia) it turns out that 45% of our population (52.2 million people) use the online-space in order to find the necessary information for them prefer online-media and the main channel of communication select online-social networks.

The most popular online-social network in Russia is "VKontakte," followed by "Odnoklassniki," on the third - "Facebook," the fourth - bloghosting "LiveJournal," the fifth - microblogging platform "Twitter." All of these platforms are the basis of the social media and online-space in Russian. In this Internet analysts note that the number of open messages published online-users in the Russian part of the Internet - RuNet much more than in the U.S. or the European segment online-space. Daily Russian online-space published about 10 million public posts (Dynamics of the number...) in a variety of online-platforms; with the fastest growing number of new users on the online-platform in Russia is "Twitter."

It should be noted that in the Russian space segment participating online political space less isolated from one another, compared to online-space of the U.S. and Europe. In particular not polarized, uninsulated system represents blogosphere Russian Internet. It is the fact that bloggers, leading discussions on a particular topic, yet do not consider themselves to any political party. Russian bloggers do not tend to associate themselves with any socially and politically active group. If you use not polarized and not isolated as a system property, you can offer channels control the system (system of blogs).

Online network communities are part of the overall functioning of the online-space, they cannot be regarded exclusively as the structural formation of the space itself.

Despite differentiation bases of occurrence, online networking communities are using one single news and information field (emerging online media), which is a characteristic feature of the only online space of Russia and, as a consequence, public policy in the online space. Changing this is a news and information field, you can indirectly modify, and online-network community. Suppose the actual news and information field is the biggest tool of influence on any component of the online space.

### 3. THE RESULTS OF RESEARCH AND CASE STUDIES

Social movements produced in the online space, arises from the operation of those or other online social networks and online social networking. The boundaries of these online social networks or online community forms a certain semantic concept, divided by the participants' online-spaces, and defines the types of users that make up the online social network: Opinion leaders, sensors, implementers, readers, reputational players.

“Opinion leaders” launch wave propagation effects of information and as a result, alter the information and news field. “Opinion leaders” include active authors.

“Sensors” - people who collect relevant information within a particular semantic concept. They make up the context of the information that opinion leaders are making.

“Implementers” - people who have run blogs, the role of implementer can be selected by the user both consciously and no.

“Readers” constitute the majority in online-space and in a single online social network. The peculiarity of these users is the fact that they are constantly in the online social networks and do not generate public posts. However, under certain conditions, these users can change their role in the “implementer.”

“Reputational players” - are the representatives of business and authority. Most often, they are included in the online network community at a time when the popularity of community is high enough.

As an example, describing the types of users in social networks online-analyze case “Blogger versus Garbage.” In April 2011, in the Russian segment of the online-space was created online-networked community “Blogger versus Garbage,” which was initiated (“opinion leader” in our classification of users) was a famous photographer, businessman, traveler and blogger Sergei Doliy, which was published in LiveJournal their observations on the abundance the garbage around us. Public blog post began with the words: “Unfortunately, not all people in our country are not accustomed to shit where they live. Many throw garbage right under your feet, causing...” - here in after very emotional described the garbage on the territory of public urban space and proposing measures to eliminate its garbage with collective forces (History campaign...). Only during the first days of this public message appeared more than 500 comments online-space users who are willing to go out with bags and gloves for cleaning. According to the rating blogs Runet in November 2013 Sergei Doliy took the top positions in the ranking of the number of Russian Internet bloggers subscribers - 25424 users and credibility index - 497367 user.

The basic idea of the project “Blogger versus Garbage” was to organize the top bloggers across the country for cleaning garbage from the territories, to use them as “sensors” and thus attract the attention of groups online-public to this problem - connect “implementers.” Top bloggers traveled to different cities for

media coverage of the activities of garbage determination: In addition to the live online-space, top bloggers accumulated efforts in the regions, transferring them to the status of “implementers,” thereby starting the process of engaging “readers” in the active part project - in offline-social action (cleaning garbage from different areas). In the role of “sensors” and were media partners of the project “Blogger versus Garbage.” “Yopolis,” “Moskva24,” “Ria Novosti,” “Rosfoto,” “Livejournal,” “Jourdom,” “Forsmi,” “Artmol.” Information partners as “sensors” of any online-network community always have a special role to work with “readers” by transferring them to the status of “implementers.”

After numerous reports, especially reports on the platform “Instagram,” associated with the presence of a huge number of photographs, from online-community network “Blogger versus Garbage” appeared partners and sponsors - it included “reputational players.” “Reputation players” became company “Eldorado,” “Coca-Cola,” “Beeline,” “Svyznoi.”

The “Blogger versus Garbage” became part of the genesis of online-space Russia as one of the largest civil constructive action of bloggers. In 2013, the project was attended by 80 subjects of the Russian Federation with the total number of participants more than 50 thousand people. Hashtag #bloggerprotiv in Twitter trends released in Russian Internet. All who participated and will participate in future promotions of the “Blogger versus Garbage” found each other in the online-space. As a result of actions already directly in the offline was collected more than 1500 tons of garbage. In parallel with the activities in offline in online-space conducted the nationwide broadcast of the “Blogger versus Garbage,” which allowed not only to monitor in real time the results of actions, but also to unite participants from different geographical locations. All project coordinators in their reports and interviews talked about that in the regions of power willingly went to meet activists from the project, but at the same time, analyzing the results of operation of online-community network, it is impossible to determine the authorities as “reputational players,” they can rather be attributed to offline-support. This example shows that the government underestimates the role of the online-network communities and joins them at the implementation stage of social action. This position entails a lack of online-space network power structures capable enough mobile embedded in various projects with the aim of promoting and assisting in the execution. As a result, online-space there are no clear mechanisms for the maintenance and development of the various structural socio-political practices.

Each online social network and online community network in fact is nothing like the social graph, and hence the user in a particular role described above is a vertex or node of the graph, social connections – edges (Gubanov et al., 2010). It should be noted that the online social networks as social graphs are also still incomplete and because graphs do not always describe all possible connections (edges) between members of the network or community. Online network communities are formed in the online social networks in graph theory are defined as clusters, which are characterized by modularity - property graph determines

its decomposition into sub graphs and therefore defines the boundaries of online network communities. Delimitation of online community network is carried out by dividing the links on lying inside and outside the communities. Ties lying outside the communities carry on the relationship between communities form a network (graph).

Impose on the classification of users we have described some of the characteristics of the social graph to identify additional user properties online social networks and communities, “credibility index,” “measure of connectivity,” “bridge.”

“Index of authority” - shows the degree of importance/influence a specific user (node social graph), determined the number of links in one node (top) of the social graph, these connections can be divided into incoming and outgoing communication tops. Incoming communications determine popularity of online community network users and outgoing communication determines the extent of its involvement in the formation and stability of the online community network. “Opinion leaders” have the highest index of authority, while the ratio of incoming and outgoing links should not always be at the rate of fifty-fifty. Analysis combining incoming and outgoing connections gives users additional information “opinion leaders” category. For example, by analyzing the ratio of the number of publications with direct or indirect speech of person (outgoing connection) to the total number of messages with its reference (incoming connection) calculated index ranking information openness of Russian Governors<sup>3</sup>. To quote from the reports in the federal and regional mass media added posts (tweets) and comments of person in FaceBook, Twitter, Instagram, or standalone blog. In the top rated get the wrong person, which are more likely to cite in the mass media, and those who share messages with quote publications in total higher than the rest (Raigorodskii, 2011).

“The measure of connectedness” - a measure of relatedness is superimposed on top of graphs (users of online social network), and determines top of graph as a top of connectivity. If you remove the top of this, it will lead online-social network or community to the status of disconnected graph<sup>4</sup> or a trivial graph<sup>5</sup>. Usually “readers” have zero measure connectedness and “opinion leaders” have a maximum measure of connectivity, “sensors” and “implementers” are less “degree of connectivity” which is largely determined by the presence of “bridges.”

“The Bridge” - link (edge of the graph), which increases the removal measure relatedness. This relationship exists between the “sensors” and “retailers,” it almost always are bridges and usually share several clusters/network communities. In addition to “bridges” in online social networks and communities, there are “local bridges”- links whose removal does not change the

“measures of connectivity,” but changes the length of some paths<sup>6</sup>. “Bridges” form online social networks and macro levels lead to a fragmentation of the network, “local bridges” allow such information to go from one network to another and that the suppression of the “local bridges” more destructive in terms of promotion of the information because it may be the probability of fixation or in what cluster. The more “local bridges” created between “implementers” and “readers,” “implementers” and “sensor” is the stronger cohesive network or community is, and the higher the ability to operate the network or community.

## 4. DISCUSSION

Despite the fact that the scientific basis for the analysis of social networks has been formed in the 70s of XX century, this area of scientific knowledge is still needed in the development of theoretical concepts and practical studies. We need to develop interdisciplinary research based on mathematical apparatus of graph theory (sociometry) and includes the basic concepts of the theory of social networks, considering the network as a social phenomenon that will develop automated tools processing and analysis of social networks adapted for Humanities Research. The use of tools of mathematical modeling of online-social networks and online communities allow empirically confirm the classification proposed by the authors and users to identify features of the interaction between the above types of users. It is also necessary to consider the process of building social networks in multi-layer structures (the theory of layered graphs) in order to reach the largest factors affecting the development of the public sphere and civil society, which will be presented by the authors in subsequent studies.

## 5. CONCLUSIONS

How to determine online community within online social networks? Obvious that the maximum distance between two bridges contains online networking community as a structural unit of online social network. The boundaries can be identified as transitions from the “opinion leaders” to “sensors” or “sensors” to “implementers” or “implementers” to “readers”. Importantly, the process of turning “readers” in the functioning of the network and turn them into “implementers” can be explained by “threshold models of collective interaction” (Granovetter, 1978), which will be done by the authors in subsequent papers.

Covered user types common to all online social networks and do not depend on gridding and socio political situation, but only different patterns of behavior and communication that these types of users form between them, which was confirmed by the authors in the course of research projects on specific case studies.

The mechanism of interaction between the above types of users forms the frame of various online social networks, and often leads to the peculiar growth points mobilization activity that you can use to describe the phenomenon of “political condensate.”

3 Ranking of information openness of Russian Governors compiled and published on a monthly basis from May 2011 (when analyzing online-space count only official accounts of Russian Governors on Twitter, LiveJournal and Instagram platforms and standalone blogs).

4 Disconnected graph - graph is unrelated if any two of it stops are not connected.

5 Trivial graph – consists of a single top.

6 Path-a sequence of user ratings for each user connection, connecting it with the next user in the sequence. Path length-the number of connections between users.

“Political condensate” is defined by us as new actors mechanism of public policies based on the principles of network organization. It produced and accumulated as a result of a constellation of existing public policy actors in offline-space. If the constellation of actors represented primarily by political and administrative dispositions in the presence of significant barriers to entry for new actors in the production process of public policy, there is a high possibility of mobilizing online- community with its subsequent institutionalization in offline-space.

Accumulation of “political condensate” caused institutional capacity of civil society members actually affect the production process and the implementation of public policy. His glut occurs under pressure of various kinds of elite groups in the transition/ uncertainty/risk (election cycle, political and/or economic crisis, emergencies) whereby actors are emerging in public policy online-space, asking subsequently transition to offline-space.

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