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# Self-Management of the Net On-line Associations: Structure-Functional and Organizational Factors

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## Abstract

In the article it is considered the net on-line associations, which can be interpreted as a new form of sociality from the point of view of structure-functional characteristics of the net on-line societies, of organizational forms of the net on-line societies as factors of self-organization and self-management of the net on-line societies. The main research goal of this article is to study the self-management of online communities, which, in our opinion, is based on a new type of social subjectness – virtual subjectness on the coordination of network community relations, their horizontal self-organization and fundamental trans-borderness as well as on such specific forms of global information – communication interaction, as matrix-cellular network links between the actors, members of network communities which expresses their decentralization. The main thesis of this article is the following: a lot of networked communities are a form of information society manifestation, i.e. a new kind of sociality, digital, virtual, information and communication sociality, which self-organize and self-manage. One of the conclusions is that a poly-haul structure is typical for multiple networked communities in which each node (cell) is connected by a number of information highways while each information highway includes a multitude of alternative logistic vectors of actual and virtual information interaction.

**Keywords:** on-line communities, network communities, self-organization, self-management, computer; information.

# 1. Introduction

The relevance of online communities self-government study is associated with a variety of theoretical and practical aspects that are due to the fact that on the basis of innovative information technologies at this stage of the formation and development of the global information society, the all-encompassing planetary forms of information and communication exchange and interaction, have created social practices qualitatively new in the human history civilizations, in fact, created a new type of society - global information and communication society. A new type of society can be represented by different functions in different hypostases. First of all, new forms of social global information and communication, new forms of human self-presentation and identity –

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informational self-presentation and digital identity, new forms of social subjectness – virtual subjectness, a new form of civil society – civil digital society, a new type of culture – digital underground culture, new forms of human activity in the global network – educational, cultural, political, leisure, etc. It is important that all new forms of relations and interactions are formed on the basis of a new type of social structure: it is the multiplicity of network information structures that are commonly called network communities.

### 2. Materials and methods

Network communities are treated by modern researchers as network constructs, digital phantoms, new kind of informational-communicational and digital sociality. The methodology of researching network communities is due to the fact that it is the material of such research, its object and subject. In our opinion, such material can be represented by two fundamentally different, albeit interrelated approaches.

The first approach characterizes network communities from the content-qualitative and quantitative side as it is connected with the understanding of network communities as phenomena of the information world. This is an ontological approach, the implementation of which should lead to a comprehension of the phenomenal side of this new type of sociality and to answer the questions of information specifics, content characteristics, statistics, informational and technological basis of network communities, understanding them as global social media in all their diversity.

The second approach is connected with the understanding of network communities as social constructs, namely, social concepts that are the product of a particular society, including the emergence of its culture, science and established social practices. Such an approach, with respect to the first ontological one, can be called epistemological, but due to the too wide prevalence of this term, let's call it the conceptual approach.

Whereas the ontological approach characterizes the qualitative and quantitative existence of the phenomena of the information world – network communities, the conceptual approach characterizes the essence of this being, which, in our opinion, is manifested in the formation of a new type of social subjectness – global information subjectness, which is formed on the basis of a new type of sociality - network sociality. This is one of the manifestations of the essence of a new type of society. It is based on the fact that the global network Universe is self-organizing and self-governing (Kurbatov, 2018: 64-65).

This is a brand new characteristics of the society in the history of human civilization which requires its conceptual comprehension; since its self-management and self-organization of network communities, in our opinion, is a quintessence in understanding the essence of a new type of a society – a global information society, proceeding from the premise that this problem is multifaceted. It includes the information and communication self-presentation of people, in the construction of their virtual identity, in the forms of the emergence of a new type of social subjectivity of the informational type – virtual subjectness, and the comprehension of the formation of the subculture of the computer underground, which represents a new type of sociality in the form of a set of network communities that are informational expression of a virtual civil society, and self-government of a given society, which should be expressed in the features of its constitution of the formation (formation), construction (explication in the social theory), functioning (real information being) and its structuring (self-organized differentiation of elements) as well as conceptual comprehension of the multifactority of these relations.

The main research goal of this article is to study the self-management of online communities, which, in our opinion, is based on a new type of social subjectness – virtual subjectness on the coordination of network community relations, their horizontal self-organization and fundamental trans-borderness as well as on such specific forms of global information – communication interaction, as matrix-cellular network links between the actors, members of network communities which expresses their decentralization.

Selection of the methodological paradigm for the study of self-management and selforganization of the networked communities as the essence of a new type of informational society, as noted above, is due to the identification of the two principal approaches – ontological and conceptual (epistemological) and their discussion.

From the point of view of the first approach, the phenomenal being of the informational

society is connected, as noted by such authors as B. John, E. Laing, S. Hatzinanguos and other authors, is an expression of global social media (Laing, 2017; Hatzipanagos, John, 2017). In accordance with this, network communities as global social media are explicated in research approaches from the point of view of the content parameters of studying this information phenomenon. In particular, as noted by researchers (Shea, Bidjerano, 2018; Hatzipanagos, John, 2017), this refers to the information interaction of networked communities in the field of educational, professional development, which is explored by J. Novakovich, S. Show , S. Miah, T. Trust, D. Krutka, J. Carpenter (Novakovich et al., 2017; Trust et al., 2017), social contracts, politics, protest activities and public opinion, such scholars as M. Kasra, K. Martin, S. Gonzales-Bylon, N. Wang, R. Dunbar, V. Ariabaldi, M. Conti, A. Passarella (Kasra, 2017; Martin, 2016; González-Bailón, Wang, 2016; Dunbar et al, 2015).

Phenomenal characteristics of the information life of network communities provide meaningful grounds for qualitative parameters of interaction of network communities but do not lead us to a conceptually essential assessment of the new quality of a network society. An essential characteristics, as G. Reingol points out, is related to the fact that a new type of a society in the form of a set of network communities that arise and function in the global information network, then and only when a large number of people for a sufficiently long time construct their social, professional and individual-personal information and communication links and relations, that is, they realize through their new relations their personal and social subjectness (Rheingold, 2000: 113).

Conceptual approach in the study of self-management and self-organization of networked communities in our work is related to the methodology of social constructivism (Baksansky, Kucher, 2012; Berger, Lukman, 1995; Lectersky, 2009; Lenk, 2009; Tokareva, 2001; Raskin, 2006). In particular, principles of the explication of reality (social, consensus and media reality), understanding of construct as a model for explaining reality, methods of institutionalization, legitimization and the characteristics of the informational environment are used as methodological principles of social constructivism. To characterize the information and communication functioning of networked communities, the principles of N. Luman's communication interaction, from the point of view of his self-reference, structural conformity and selection as well as its systemic nature in society (Lumann, 1995; Lumann, 2005; Lumann, 2007).

Methods of structural analysis and functional analysis, structural and organizational forms of networked communities and the intensity of their communication, information, personal, professional, social and civic interaction expressing the functioning of networked communities are also used as the main methods of analysis. This also involves resource and dynamic approaches that analyze the information, personal and professional resources of actors in the network communities that characterize personal self-development of actors and their self-presentation and self-presentation in the virtual space (Zayonts, 2010; Konoplitsky, 2004; Lupanov, 2001; Nazarchuk, 2011; Buch-Hansen, 2014).

In our view, self-organization, voluntariness, self-management, cross-border network online communities, this is primarily expressed in the elimination of territorial, state, national and other boundaries, in their horizontal coordination. Being an information and technological product of the society and thanks to its network connections, network communities spontaneously form new network social associations in which interested actors are united, who share the network thinking, network language, network morality and network ways of discussing and solving socially significant problems.

#### 3. Discussion

The issues of organization, management and self-management of networked communities are of particular interest. In the opinion of many researchers, among which it is necessary to outline A.A. Vittikh, A.V. Egorova, M. Kastelsa, L.A. Saenko, O. Elikhman (Vittich, 2011; Egorov, 2016; Castells, 2004; Saenko, 2014; Aleahmad, 2016), the organization, management and self-management of network communities represents a new type of social management and self-management. The study of this issue is the main research task of this article. The importance and urgency of such research is due to the fact that networked communities, representing a new type of sociality – virtual, digital, information and communication sociality, generate new qualities of the global information society.

The main thesis of this article is the following: a lot of networked communities are a form of information society manifestation, i.e. a new kind of sociality, digital, virtual, information and communication sociality, which self-organize and self-manage. The grounds for such an assertion are the following arguments:

- network communities are characterized by specific functions that constitute them as special social phenomena of the information world;

- network communities have a specific flexible, decentralized, integrative matrix-cellular structure;

- network communities interact with each other on the basis of information and communication exchange of information;

- network communication is a new kind of social communication and a new kind of social connections;

- they are characterized by specific types of relations and special mechanisms of functioning;

- network communities are characterized by such ways of organization and formation for which decentralization, horizontal connections and relationships are characteristic, which generates their inner essence, forms and mechanisms of self-management.

The above listed features of network communities, in particular, their specific functions, decentralized matrix-cellular structure, network information-communication interaction, network processes and relations and forms of organization are called as the characteristics of self-management of network communities.

Functions that are characteristic of networked communities are the conditions by which they are constituted as special social phenomena of the information world. The following ones can be distinguished among such functions:

- communicative function, which serves as a means of information exchange, diverse communication and expansion of its scope;

- function of personal and professional development of actors in network communication;

- epistemological function, through which the actors learn to communicate their partners and themselves;

- informational function, which is the essence of network communication, through which the receipt, transmission, storage and targeted use of information, as well as information acquaintance, notification and information;

- civil-social function that gives an opportunity to express their social and civic positions and adherence to a particular ideology;

- personal function, which is expressed in postulating your own personal position, your views and values;

- supportive function associated with the information retrieval of their like-minded people and the value and positional solidarity with them;

- function of self-presentation, self-determination and self-presentation, through which by constructing one's personal "Self" and representing it for information interaction;

- a function of digital virtual publicity, through which all forms of personalization are transformed into a public information network resource.

All these functions implemented by the network communities constitute the network communities themselves, as special social phenomena of the information world, which are the development of new forms of social interaction, through which the digital virtual society is developed, through the development of personal, civil-social and professional subjectivity.

The analysis of the structure of the on-line communities has been conducted by such researchers as S.V. Bondarenko, Yu.G. Rykov, O.Y. Koltsova, P.A. Meilahs, N.K. Baum, A. Grazd, J. Roy and others. It is established that being a special social phenomena of the information world, network communities have a specific flexible, decentralized, integrative matrix-cellular structure based on social links between actors and community members that are formed from a set of information interactions of individual digital virtual objects as subjects of a qualitative new social-informational formation – network communities (Bondarenko, 2004; Rykov et al., 2016; Baym, 2013; Gruzd, Roy, 2014).

The structure of networked communities is characterized by the following parameters:

- decentralization and horizontal links;

- being a multi-core network, among which are the integration of various goals, personal,

professional and socially-significant projects;

- multilevel structure of networked communities, which allows to integrate a variety of activities and interactions;

- flexible structure of the network communities, which allows to coordinate an adequate response of the matrix structure to any change in the external environment;

- structure of network communities is characterized by the absence of intra-organizational barriers;

- main structural principle of forming network communities is a branched network of horizontal links that are expressed in numerous intersections of cells (nodes) of the network (Ivanchenko, 2008; Nazarchuk, 2008; Kosichenko, 2012).

On the basis of the foregoing, it can be concluded that a poly-haul structure is typical for multiple networked communities in which each node (cell) is connected by a number of information highways while each information highway includes a multitude of alternative logistic vectors of actual and virtual information interaction.

The next argument, designed to justify the self-management of networked communities, is a specific network interaction. Networking is a system of established and constantly developing links between elements of the network community structure, through which already established links are maintained, new links are created that allow the network communities to function, support their structure, develop, evaluate, test, make public and implement different models positioning and self-presentation of a personal, professional or socially significant position, expressing the joint use of information resources.

The main principles of network interaction are the following:

- information cooperation, which is expressed in the formulation of unifying goals based on the interest of the participants in the interaction, in particular, the interest in the joint use of information resources for the implementation of cooperation;

- multilevel network interaction (personal-personal, professional, social-civic);

- multiplicity of goals of network interaction that are associated with various functions of networked communities: virtual communication, information interaction, personal development, digital publicity and self-presentation, etc.;

- voluntariness of network interaction, which by its nature is an independent activity and the realization of personal-personal interest;

- independence of actors in network interaction;

- lack of a common vector for prioritizing network interaction;

- multiplicity of leaders who can determine some form of network interaction, the status of which is determined solely by the fact that they are carriers of the information resource for this network interaction.

Network communication is carried out through network communication, which is characterized by the following features: it is multi-channel, characterized by high density of information saturation, the multiplicity of information transfer paths, presence of a multitude of alternative paths which relativizes the information interaction.

Networking is a mechanism for the functioning of networked communities. As it is noted by S. Borgati, E. Mehra, D. Brass and J. Labinka, the mechanism of functioning of the network communities is characterized by the following basic parameters:

- direct transmission and direct access to information, according to which information links are established within the information network, through which information "blood flows or nerve impulses" are realized, expressing the essence of existence of the entire information network;

- information adaptation, which expresses the emerging equal attitude to information resources: freedom of personal access, freedom to interpret and use information resources, freedom to enter any network community, subject to the adoption of its rules, freedom to choose one's own position;

- linking which is expressed in the fact that the information network (or part of it) can (or cannot) function as a single actor, under certain conditions (a common goal), interested in linking all the nodes of the information network (or part of it);

- exception that is a specific amateur mechanism that allows you to eliminate some information links that make achieving common goals difficult or even impossible (Borgatti et al., 2009).

Network communities are characterized by specific network processes which also act as characterizing factors of self-government. These include: results orientation, structural and information mobility, consular procedures based on the interest of actors in information interaction, decentralization, expressed in the constant formation of a set of equal centers, which differ not in authority but in the availability of information resources, access to information and the availability mechanisms for achieving consensus goals, overcoming limitations and boundaries (linguistic, territorial, state) as well as borders between formal and informal relations (Bresler, 2014: 121-122).

Formation and organization of network communities in the form of coordination of information and communication activities, expressing personal, professional and social-civic self-presentation, self-affirmation, self-realization and self-development, is a form of unlimited expansion of information interaction by including new information nodes (cells), self-developing and decentralized process (Nevesenko, 2011).

The functions of networked communities described above, their structure, forms of network interaction, ways from formation and organization, being the characterizing factors of their self-management, form the internal essence of network communities, as a kind of network civil society. In our opinion, the main features of the internal essence of networked communities are the following: decentralization of information flows, a new type of relations - network self-organization of information interaction, a new type of social solidarity - voluntary coherence of goals and connections between all subjects of network interaction, a new type of social development - amateur expansion of the information field of interaction and a new type of social management - amateur formation of network communities, self-organization and self-administration (Egorov, 2014; Kazakov, 2014; Orlov, 2008).

Network organization and network self-management makes it possible to realize meaningful and purposeful actions of many actors of network interaction to achieve voluntarily set goals, self-organized coherence of connections between all actors of a network interaction. In this way, a self-governing network community is emerged, expressed in the informational interaction of a multitude of actors implementing in their actions the need for affiliation to the global network community (Zatonsky, 2007: 13-14).

Global network is a set of interconnected points of intersection of multidirectional information flows, which are the most important factor in uniting people on the basis of the coincidence of needs, interests, values and intentions. This voluntary and interested association of people, free from vertical power relations, a self-organizing and self-governing association that is transforming into a global networked information society is transformed into a networked civil society. As it is known, civil society is a social form of self-realization of free citizens, which are united in societies, associations, organizations and specific voluntary social structures that are characterized as independent of direct influence on the part of the state and all branches of state power (Buryak, 2011).

Network civil society is the virtual hypostasis of a real civil society, a modern network social morphology based on modern information technologies, characterized by new social hierarchies, new forms of adaptation, mobility, mobility, functionality, coordination, structure, self-organization and self-government, decentralized in its essence, capable of self-development due to unlimited expansion, inclusion of new nodes, networks, which is subordinated not to the external commands but to its network, information logic (Shakula, 2006).

#### 4. Results

The following results can be determined as the main results obtained in the study of selfmanagement of network communities. Network civil society is a means and result of the selforganization of the global information space through new forms of self-government. The main forms of networked self-government are the following:

- self-activation, as a way of voluntary inclusion of actors of information interaction in the global information exchange on the basis of personal, professional and social-civic interest in achieving agreed goals and needs;

- organizational self-regulation, which is expressed in the flexible implementation of organizational functions by members of networked communities as a form of organizing collective action with a view to more successful achievement of common goals;

- collective self-control, which manifests itself in real self-analysis by the bodies of network self-government and individual organizers (actors of network interaction) of their activities, which allows achieving such goals by more effective methods on the basis of such self-organization;

- interest of the network community in finding the meaning and role of its existence, on the one hand, in self-realization and in the self-development of each member of the network community, and on the other hand, in understanding that this is possible only if self-organized and mutually agreed common goals;

- comprehension of networked self-government as a social action that is basically multifactorial, i.e. taking into account the maximum number of factors in making decisions and implementing actions that organize and form common rules that constitute and construct the information life of network communities, the basis of which should be trust, the orientation towards the optimal achievement of goals by the actors in the network interaction and their interest in such interaction;

- conformity of methods of technological improvement (specific programs, projects, new forms of technical support) to forms of network self-management.

#### 5. Conclusion

Based on the results obtained, the following conclusions can be made:

- network self-management assumes the independence of members of network communities, the plurality of leaders that are characterized by unassigned powers, access to information resources, voluntariness of information links united by a common interest and a multiplicity of levels of informational interaction;

- self-management of network communities is manifested in the informational and communicational self-presentation of people, in the design of their virtual identity;

- self-management of network communities, is expressed in the forms of the emergence of a new type of social subjectivity of the informational type - virtual subjectness;

- manifestation of the self-organization of network communities is reflected in the formation of the computer underground subculture, which represents a new type of sociality in the form of a set of network communities that are the informational expression of a virtual civil society;

- self-management of a network society should be expressed in features of its formation, functioning and self-organizational structuring.

#### References

Aleahmad, 2016 – Aleahmad, A., Karisani, P., Rahgozar, M., Oroumchian, F. (2016). OL Finder: Finding opinion leaders in online social networks. *Journal of Information Science*, 42: 659-674.

Baksansky, Kucher, 2012 – *Baksansky, O.E., Kucher, E.N.* (2012). Cognitive construction of reality. In Baksansky O.E., Coachman E.N. Moscow: Librokom, 256.

Baym, 2013 – Baym, N.K. (2013). The Emergence of the On-Line Community. Ed. C. Hine. *Virtual Research Methods*. Vol. 1. London: Sage: 29-56.

Berger, Lukman, 1995 – Berger, T., Lukman, T. (1995). Social construction of reality. A treatise on the sociology of knowledge. Moscow: Academy-Center, 323.

Bondarenko, 2004 – Bondarenko, S.V. (2004). Social structure of virtual network communities. Rostov-on-Don, 320.

Borgatti et al., 2009 – *Borgatti, S., Mehra, A., Brass, D., Labianca, G.* (2009). Network Analysis in the Social Sciences. New York: Science.

Bresler, 2014 – *Bresler, M.* (2014). Social networks and network communities of the information society. Ufa: Bashkir State University, 174.

Buch-Hansen, 2014 – Buch-Hansen, H. (2014). Social Network Analysis and Critical Realism. *Journal of Theory of Social Behaviour*, 44: 306-325.

Buryak, 2011 – Buryak, V.V. (2011). Global civil society and network revolutions. Simferopol: DIAIPE, 152.

Castells, 2004 – *Castells, M.* (2004). Galaxy Internet: Reflections on the Internet, business and society. Ekaterinburg: U-Faktoriya, 102.

Dunbar et al, 2015 – Dunbar, R.I.M., Arnaboldi, V., Conti, M., Passarella, A. (2015). The structure of online social networks in the offline world. *Social Networks*, 43: 39-47.

Egorov, 2014 – *Egorov, M.V.* (2014). Internet communities as a network factor of selforganization. In Science and education in the modern society: vector of development: *Proceedings of the International Scientific-Practical conference*. In 7 vol. Vol. VI. Moscow: AR-Consult: 156-157.

Egorov, 2016 – *Egorov, M.V.* (2016). Mechanisms of self-organization of social space. PhD. Dis.. Stavropol.

González-Bailón , Wang, 2016 – *González-Bailón, S., Wang, N.* (2016). Networked discontent: The anatomy of protest campaigns in social media. *Social Networks*, 44: 95-104.

Gruzd, Roy, 2014 – *Gruzd, A., Roy, J.* (2014). Investigating Political Polarization on Twitter: A Canadian Perspective. *Policy and Internet*, 6(1): 28-45.

Hatzipanagos , John, 2017 – *Hatzipanagos, S., John, B.A.* (2017). Do Institutional Social Networks Work? Fostering a Sense of Community and Enhancing Learning. *Technology, Knowledge and Learning*, 22 (2): 151-159.

Ivanchenko, 2008 – Ivanchenko, D.A. (2008). Specificity of social interaction of individuals in Internet communities: *Materials of the III All-Russian Sociological Congress "Sociology and Society: Ways of Cooperation", October 21-24, 2008*. Moscow: Institute of Sociology RAS, Russian Society of Sociologists.

Kazakov, 2014 – Kazakov, M.Y. (2014). Socially-communicative bases of formation of social solidarity in the network (co) society. Ph.D. Dis. Nizhny Novgorod, 130.

Kasra, 2017 – *Kasra, M.* (2017). Digital-networked images as personal acts of political expression: New categories for the formation. *Media and Communication*, 5 (4): 51-64.

Konoplitsky, 2004 – Konoplitsky, S. (2004). Networked Communities as an Object of Sociological Analysis. *Sociology: Theory, Methods, Marketing*, 3: 167–178.

Kosichenko, 2012 – Kosichenko, E.I. (2012). Self-presentation strategies and problems of personal privacy in the virtual space of its co-existence. In *Personality and being: problems, regularities, phenomenology of co-being: materials. Proceedings of the All-Russian Scientific-Practical Conference*; Krasnodar, Kuban State University: 120-124.

Kurbatov, 2018 – *Kurbatov, V.I.* (2018). Networking online communities: structural and functional factors of self-management. *Humanitarian of the South of Russia.* 7 (2): 15-27.

Laing, 2017 – Laing, A. (2017). Authors Using Social Media: Layers of Identity and the Online Author Community. *Publishing Research Quarterly*, 33 (3): 254-267.

Lectersky, 2009 – *Lectersky, V.A.* (2009). Realism, anti-realism, constructivism and constructive realism in the modern epistemology of the philosophy of science. Moscow: Canon +, Rehabilitation: 5-40.

Lenk, 2009 – *Lenk, G.* (2009). To the methodology of constructive realism / The constructivist approach in epistemology and the sciences of man. Moscow: "Canon +", Rehabilitation: 103-129.

Luhmann, 1995 – Luhmann, N. (1995). What is communication? *Sociological Journal*, 3: 114-125.

Luhmann, 2005 – Luhmann, N. (2005). Society. Vol. II. Media communication. Moscow: Logos, 280.

Luhmann, 2007 – Luhmann, N. (2007). Social systems. Essay on the General Theory. St-Petersburg: Science, 648.

Lupanov, 2001 – *Lupanov, V.N.* (2001). Internet as an object of sociological research (to the question of the development of the sociological network on the Internet, Web-networks). *Information Society*, 1: 40-43.

Martin, 2016 – *Martin K*. (2016). Understanding Privacy Online: Development of a Social Contract Approach to Privacy. *Journal of Business Ethics*, 137 (3): 551-569.

Nazarchuk, 2008 – Nazarchuk, A.V. (2008). Network Society and Its Philosophical Understanding. *Issues of Philosophy*, 7: 61-75.

Nazarchuk, 2011 – Nazarchuk, A.V. (2011). About network research in social sciences. Sociological research, 1: 39-51.

Nevesenko, 2011 – *Nevesenko, E.D.* (2011). Specificity of formation and functioning of Internet communities: the social aspect. *Young scientist*, 5(2): 88-92.

Novakovich et al., 2017 – *Novakovich, J., Shaw, S. , Miah, S.* (2017). A design-based research study. *Data in Brief*, 10: 544-547.

Orlov, 2008 – Orlov, A.Y. (2008). Organization of a virtual community in the Internet. *Information technology*, 8: 15 - 19.

Raskin, 2006 – Raskin, J. D. (2006). Constructivist theories. In J.C. Thomas, D.L. Segal (Eds.). *Comprehensive handbook of personality and psychopathology. Vol. 1: Personality and everyday functioning*. New York,: John Wiley: 212-229.

Rheingold, 2000 – Rheingold, N. (2000). The Virtual Community. New York: Harper Perennial, 346.

Rykov et al., 2016 – *Rykov, Yu.G., Koltsova, O.Y. , Meilakhs, P.A.* (2016). Structure and functions of online communities: network mapping of HIV-relevant groups in the social network "VKontakte". *Sociological research*, 8: 30-42.

Saenko, 2014 – Saenko, L.A. (2014). Network society in the context of modern social transformations. *Discussion*, 7 (48): 88-93.

Shakula, 2006 – *Shakula, D.* (2006). Internet communities as subjects forming the global information environment: concept, origin, types http://www.relga.ru/Environ/WebObjects/tguwww.woa/wa/Main?textid=1055,level1=main,level2=articles

Shea, Bidjerano, 2018 – Shea, P., Bidjerano, T. (2018). Online course enrollment in community college and degree completion: The tipping point. *International Review of Research in Open and Distance Learning*, 19 (2): 282-293.

Tokareva, 2011 – Tokareva, S.B. (2011). Methodology of social constructivism and social constructivism as a methodology. *Bulletin of Volgograd. state. University.* Ser. 7. Philosophy, 2 (14): 112-117.

Trust, Krutka, 2017 – *Trust, T., Krutka, D.G., Carpenter, J.P.* (2017). Together we are better: Professional learning networks for teachers. *Computers and Education*, 102: 15-34.

Vittich, 2011 – *Vittich, V.A.* (2011). Mechanisms of social self-organization: preprint. Samara: Institution of the Russian Academy of Sciences "Institute for Control Problems of Complex Systems of the Russian Academy of Sciences": 12-19.

Zatonsky, 2007 – Zatonsky, V.A. (2007). Civil society and state: opposition or partnership? *Constitutional and municipal law*, 16: 10-16.

Zayonts, 2010 – *Zayonts, V.V.* (2010). Sociological approaches to the study of virtual social networks. *Young scientist*, 4: 266-271.