

Network Communications as a Tool for Social and Economic Development

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ABSTRACT

The process of digitalization of society studying has taken a stable position in scientific research, which led to the formation of a wide object-subject palette, the search for an adequate methodological and methodical basis for scientific research. Virtual social networks are becoming zones of the creation of new forms of social and human capital, which in turn accelerates the process of forming information societies. Social networks are a full-fledged tool in communication between various subjects of interpersonal and social relations. This is due to the presence in the networks of a specific target audience and the ability to quickly exchange information. The development of network communities is aimed at the formation of social capital, and this, in turn, affects the reduction of social inequality due to communications, i.e. it makes people join this system. Today, the history of the emergence and development, the prospects for the functioning of social networks are gradually turning into one of the urgent areas of scientific research, and is of interest to representatives of various sciences: from philosophers, sociologists, economists, to specialists in the field of ICT. The article provides an overview of studies of ICT dynamics in Russia and its regions. The analysis of implementation and promotion practices in various spheres of citizens' life is presented. Conclusions are made about the problems and role of network communities in innovative socio-economic development in the context of the digital inequality of the regions. The information sources of the article were materials from the POF (Public Opinion Foundation), IIS (Institute for the Development of the Information Society), research results of Russian and foreign scientists and analysts, various Internet sites.

Keywords: *ICT, region, digitalization, social inequality, Internet, northern regions*

1. INTRODUCTION

The Internet community is a special type of social association of communication networks users, the integration of which arises on the basis of a common discourse in a virtual space with a long and emotional involvement in the communication process. The first social Internet networks provided users primarily with opportunities for interpersonal communication. [1] Today they are unprecedentedly spreading, crowding out or replacing direct communication. According to internetworldstats.com, at the end of 2014, there were 103 million Internet users in Russia, and its penetration reached 70.5%. For comparison, the average Internet penetration in European countries by the end of 2015 is estimated at 73.5%, and on average across all countries of the world - 46.4%. Over the years, this is only gaining momentum. I.e. Internet development in Russia is represented to a lesser extent than the European average, which is not surprising given the heterogeneous distribution structure and extensive spatial diversity of the Russian Federation. At the same time, the POF study of the network activity of Russian users (based on a sample survey of the adult population of cities) demonstrates its high dynamism. From 14 million people using the Internet

and 97 million people not using the Internet in 2004. Up to 78 and 38 million people, respectively, in 2015. [2] Moreover, 2012 was a turning point in which the proportion of Internet users exceeded the share of citizens who do not use networks.

2. RESULTS

The following can be singled out as criterial features for the Internet community: availability of users of a certain information resource; ability of group members to interact with each other and own information about a common story; set of prescribed roles (content provider, user, chat participant, moderator); A "netiquette" or rules that govern the behavior of community members; ability of community members to realize their personal and common goals in the communication process. The personal nature of the relationship allows the actor to directly observe the actions of other members of the community, receive information about their actions "first hand", and influence their behavior. [3]

In modern practice in the field of the Internet, it is customary to mean forums as a communication system that affects several users at the same time, while it is informative. Back in 2004-2010, job search forums were popular both on the Internet and off-line, educational forums for students and applicants, as well as for their parents, various thematic platforms. It is worth mentioning about the forums, which have become the main means of communication for the purchase of goods and services, the exchange of personal data between network users. [4] The peak of their popularity was in the early 2000s until 2010-2012.

Thematic sections of communication include: sports, tourism, work, education, science, culture, social networks and much more. A guestbook and a database of any thematic forum is what data exchange is based on. Each forum should be useful to those Internet users who are registered on it. The content managing is carried out within the framework of the forum administration system: a special administrator or moderator hired through social networks who, if necessary, can delete unnecessary or outdated material, as well as if it does not meet ethical standards.

Any forum, as a rule, contains such basic elements as: site engine, polls, user e-mail addresses (hidden), topics, posts (messages), communication sections. But in addition to the many positive aspects of working on the forums, users also faced the negative aspects of data exchange.

The most important among them was the need to "click" on various headers in the message list. In addition to time costs, there was also a high risk of skipping the most important messages, including from the administrator, although his posts were red or blue, which distinguished him from the rest.

At the moment, the development of network communities in Russia, such as an online forum is not very popular. Now mainly large communities, such as the Forumhouse, Pikabu, the Draftees Forum, thematic automotive forums, etc. are still popular. But such a type of communication as a forum has not completely outlived itself in Russia. [5] The most successful forums in Russia are those created on the basis of the Russian Association of Electronic Communications (RAEC), the federal agency for mass communications. Both forums have existed since the early 2000s. Also, the well-known forum "Internet and Business", existing since 2008, does not stop developing even now, thanks to relevant breakout sessions and round tables. The founder of all the above forums on the Internet is the government of the Russian Federation, which is associated with their special significance for the state. The development takes place in stages, annually including new components, for example, the inclusion of master classes, trainings and presentations. [6]

Another question, what is the level of attendance of these same forums, what benefit can they bring to people, what can be offered to replace them? But it's already noticeable that there are much fewer users on such Internet sites than 10 years ago.

In addition to forums, modern users have the opportunity to access groups of social networks, for example, on VK,

Facebook or Instagram. Every day, the number of social networks functions in Russia is growing more and more, which is associated with the characteristics of the culture of consumption and the acquisition of new knowledge. Today it is much faster to get the necessary knowledge through VK or Facebook than 7-8 years ago. But do not rush to extremes and completely level the very nature of the forums. Yes, they have almost outlived themselves in the form in which they existed 10 years ago, but this does not mean that they are no longer relevant. They simply "migrated" to social networks, and in some cases, to instant messengers, such as Viber, WhatsApp or their analogues. [7]

Thus, one of the elements of creating forums now can be considered their numerous derivatives on VK and Facebook. That is, when users want to communicate on an economic, financial, or other topic, it is much easier for them to simply subscribe to a community or join a group on social networks and chat with others. As the practice of recent years shows, it is much more effective and profitable for all parties involved.

Often, the forum is positioned as an Internet communication tool. Often, organizations seek to create a community to promote their website using the forum. This is a class of web applications that helps organize the communication of visitors to a website. The term corresponds to the meaning of the basic concept of forum - a form of communication on the site. Each message in such conditions has its own author, subject and individual content. As a rule, they are divided into topics and each answer will be a fragment of a general open discussion of a particular topic. Another significant fact is the ability of delayed responds. Texts of topics and answers are stored for an unlimited period of time. [8]

The main objective of the phenomenon under discussion is to create a community around a topic. In business, this is an enterprise, in normal communication - relevant topics, in education - groups and more. As an online marketing resource, this factor is very interesting. At the same time, the forum remains one of the most difficult to manage formats, more demanding than the blog. This is due to the simplicity of the design itself and the complexity of management. This tool will only help sites with a very high traffic level. Its theme should be complex goods and services, generating a large number of questions and opinions. This is not just a means of communication, but also a way to attract public attention.

The Internet is a global phenomenon, but despite globalization, local interests contribute to the creation of communities and their cohesion. Increased communication at the regional level will lead to the development of the region, overcoming social exclusion, marginalization and other things. [9]

Today, the smoothing effect of the phenomenon of network communities is demonstrated, for example, by a number of foreign countries in Europe (see the results of international comparisons of the Organization for Economic Co-operation and Development (OECD), Eurostat (for 25 EU countries), European projects BISER (Benchmarking the Information Society: e-Europe

Indicators for European Regions), SIBIS (Statistical Indicators for Benchmarking Information Society), e-Business W@tch, etc.).

3. DISCUSSION

The Institute for the Development of the Information Society (Moscow) developed the Index of Readiness of the Regions for the Information Society (hereinafter referred to as IGRKIO). Since 2005 the results of a study of participants in this project are published. The index is a measure of the degree of preparedness of regions for the use of ICT for socio-economic development. It is calculated on the basis of indicators characterizing the development factors of the information society, as well as the use of ICTs in six areas (state and municipal government, education, healthcare, business, culture, households). To calculate the Index and its components, 77 indicators are used, which include the main indicators of access and use of ICT recommended by international organizations. The index allows measuring the differences between the constituent entities of the Russian Federation by integrated indicators of information development. The index makes it possible to assess the current situation, identify the most problematic areas in terms of regional informational inequality, and identify lagging areas and obstacles to the development of the information society in the constituent entities of the Russian Federation. Data is publicly available until 2014. More detailed reports can be found on the index website - <http://eregion.ru/polnyi-otchet>.

The IGRKIO is divided into:

- Index component of electronic development factors (human capital, ICT infrastructure, economic environment);
- Index component of the use of ICT for development (ICT in business, culture, medicine, education, households, government bodies).

So, Figure 1 below shows the dynamics of the index for four regions of the North-West of the Russian Federation, which entered the top 20 in 2008: St. Petersburg, the Murmansk region, the Republic of Karelia, the Nenets Autonomous District.

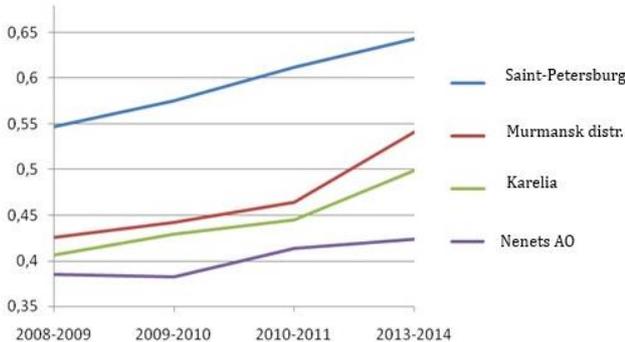


Figure 1 Dynamics of the readiness index for the information society of certain regions of the NWFD of the Russian Federation for the information society 2008–2014.

The index growth rate in the Nenets Autonomous District (hereinafter NAD) of Russia is the lowest relative to other regions. This region was among the top 20 regions of the Russian Federation by index indicators in 2008, and by 2013-2014 and moved to 56th place due to lower index growth. Against the background of sparsely populated and remoteness from large centers, accompanied by the outflow of human capital from the region, there is a problem of poor development of ICT infrastructure. The dynamics of the integral index growth of the Murmansk region and the Republic of Karelia is characterized by higher rates compared to St. Petersburg. External factors such as proximity to foreign countries due to the border situation, as well as a large metropolis - St. Petersburg, contribute to the high growth of the indicator in the subsidized resource-intensive region of Karelia, which contributes to the diffusion of innovations, having a positive impact on the development and use of ICT in the region.

The internal regional differences of the four subjects under consideration are revealed on the basis of the ratio of two index components, including factors of ICT use for development and factors of electronic development [10] (Figure 2).

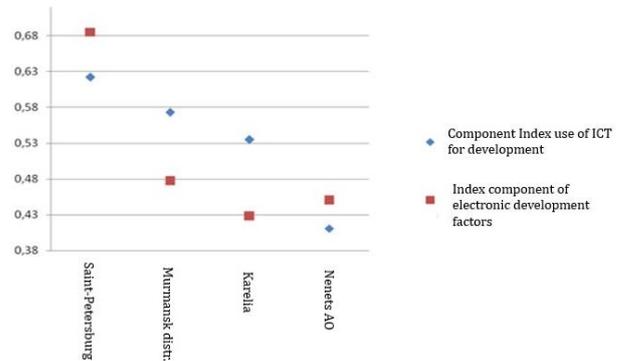


Figure 2 The ratio of the index components of the four NWFD of the Russian Federation, 2013-2014

It is noteworthy that in the regions of St. Petersburg and the NAD the value of the index component of electronic development (human capital, ICT infrastructure, economic environment) is higher than the value of the index component of the use of ICT for development (in business, culture, medicine, education, etc.). Inverse ratios of indices are observed in the Murmansk region and Karelia. Moreover, St. Petersburg has the highest values of both indices. Against the background of the largest gap between the values of the two considered index components, the Republic of Karelia recorded the lowest index component of electronic development among the four regions, including lower than that of the Nenets Autonomous District. An element-wise comparison of the index component of the electronic development factors of the Republic of Kazakhstan and the Nenets Autonomous District shows that its low value in the Republic of

Kazakhstan is due to the low value of the "economic environment" indicator.

In 2017 The Institute of Economics, Karelian Research Center of the Russian Academy of Sciences received a grant for research and development of models for the formation of regional socio-economic network communities (RFBR 17-06-00691). One of the points of the project is the creation of an online platform (forum) for communications. The aim of the project was to increase the effectiveness of managerial decisions in the Republic of Karelia. In this regard, it is necessary to identify the need of the professional community for specialized and expert network sites, determine the level of demand sites (municipal, regional, national), the structure of their interaction, the need for inter-professional network communities.

To overcome the low activity of network communities, an important factor is the identification of the demand of the professional community for an exchange of views. In the case of high demand, the interaction activity is likely to be quite high. In the case of low demand, additional research is required to identify factors for the development of professional network activity. [11]

After a series of manipulations on the development of the Internet forum <http://smart-karelia.ru/phpBB3/> for communication and connection of the society, the authorities and other interested parties of the Republic of Karelia, the employees revealed that the idea of creating such a platform for the regions is very relevant, in many regions the dialogue between power and society is rather weak. However, it is weak precisely because of the closeness and employment of interested parties. Small business is open but busy. Big business is closed. Power is dubious, and people are harsh in their statements. The second problem is that any Internet site needs to be promoted, i.e. to be advertised. Since it is part of a large global Internet, it requires financial costs. The third problem, as some SMM specialists (promotion and sales specialists in social networks) note, is that half of the average Russian users usually go to the Internet to relax, watch pictures, funny videos and more. People do not want to read, think, and this is a serious problem in the regional community.

4. CONCLUSION

Based on the foregoing, it can be argued that the issue of modern forums on the Internet has not yet been fully explored, since the latest technologies and realities force us to look for new ways to unite users according to their interests. The research interest in the problems of virtual network communities is due to the fact that with the increase in the number of Internet users, not only the social importance of networks has increased, but also numerous problems associated with self-identification of individuals in these communities, social practices, normative-value attitudes and the possibilities of social control over them. [12] The current information or digital inequality in the Russian regions can both strengthen the existing regional

differentiation and even level its existing destructive manifestations based on innovative reorientation from resource-intensive to information strategies of socio-economic development of regions.

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REFERENCES

- [1] E.M. Clarke, E.A. Emerson, Design and synthesis of synchronization skeletons using branching time temporal logic, in: D. Kozen (Eds.), Workshop on Logics of Programs, Lecture Notes in Computer Science, vol. 131, Springer, Berlin, Heidelberg, 1981, pp. 52–71. DOI: <https://doi.org/10.1007/BFb0025774>
- [2] E.R. Tega. ICT-related training and support Programmes for information professionals / Education and information technologies. T. 24. N. 7. 2019. P.: 3269-3287. ISSN: 1360-2257.
- [3] Razvitiye interneta v regionakh Rossii, 2016g. Auditoriya interneta i rezervy rosta [Elektronnyy resurs]
URL:https://yandex.ru/company/researches/2016/ya_internet_regions_2016#itogovyetabletlycy
- [4] A.M. Leshchenko, Mul'tifunktsional'nost' setevykh kommunikatsiy v sovremennom obshchestve, Vestnik Adygeyskogo gosudarstvennogo universiteta. Ser. Regionovedeniye: filosofiya, istoriya, sotsiologiya, yurisprudentsiya, politologiya, kul'turologiya. Maykop, 2011. V. 2. S. 52.
- [5] A. Abrosimova Kommunikatsiya v Internete: vzaimoponimaniye i status [Elektronnyy resurs] URL: http://old.russ.ru/netcult/20011022_abrosimova.html
- [6] N.G. Asmus, Lingvisticheskiye osobennosti virtual'nogo kommunikativnogo prostranstva: Dis. kand. filol. Nauk, Chelyabinsk: Chelyab. gos. un-t, 2015, S. 41.
- [7] T.V. Tarasenko, Etiketnyye rechevye zhanry: opyt opisaniya (na primere opisaniya zhanra pozdravleniya), Zhanry rechi: Sbornik nauch. st. - Saratov: Kolledzh, 2016. V. 3. S. 289.

- [8] M.M. Bakhtin, Problema rechevykh zhanrov / M.M. Bakhtin, Estetika slovesnogo tvorchestva. 2-ye izd. - M.: Iskustvo, 2016. S. 250-296.
- [9] T.V. Shmeleva, Model' rechevogo zhanra, Zhanry rechi: Sb. nauch. st. - Saratov: Kolledzh, 2017. V. 1. S. 91-96.
- [10] M. V. Sukharev, Prigranichnoye sotrudnichestvo v kontekste tsifrovoy ekonomiki, Perspektivy sotsial'no-ekonomicheskogo razvitiya prigranichnykh regionov: materialy VI mezhdunarodnoy nauchno-prakticheskoy konferentsii, [26-28 sentyabrya 2019 g., g. Petrozavodsk], Petrozavodsk: KarNTS RAN, 2019. S. 357-360. Doi: 10.36867/BR.2019.66.20.062
- [11] Indeks gotovnosti regionov Rossii k informatsionnomu obshchestvu 2013–2014. Analiz informatsionnogo neravenstva sub"yektov Rossiyskoy Federatsii, YU.Ye. Khokhlova, S.B. Shaposhnika. M.: 2015. S. 534.
- [12] A.A. Morozov, ICT in regional development: analysis of some regions of the east and west of Russia. Advances in Economics, Business and Management Research, v.47. ISCFEC 2018. Atlantis press. 2019. P. 41-44. DOI: 10.2991/iscfec-18.2019.10
- [13] A.A. Morozov, R.V. Belaya, T.V. Morozova, Regional'nyye osobennosti razvitiya setevykh soobshchestv v Rossii: primer Respubliki Kareliya, Kreativnaya ekonomika. 2017. T. 11. № 10. S. 1077-1092. DOI: 10.18334/ce.11.10.38413