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Behavior on the Internet of Poles and Russians: results of the comparative cluster analysis¹

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*Internet communication, Internet use profile, comparative cluster analysis,
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Cyberspace phenomenon took the attention of sociologists started studying of characteristics of behavior of people on the Internet. Such interest speaks how the stable growth of Internet audience in our country, and that Internet behavior, being a kind of social behavior, serves as a marker of valuable installations and vital strategy of people. The most intensively virtual space is studied by the western researchers. Among them G. Allen, B. Barber, B. Bimber, F. Cairncross, S. Clark, M. Castells, S. Coleman, A. Etzioni, P. Norris, M. Poster, H. Rheingold, S. Ward, L. Weber.

The behavior of people on the Internet is the indicator of quite wide number of the social phenomena and processes: level of a stratification of society on the basis of access to a global network, the dominating factors – barriers of the Internet involvement, extent of development of telecommunication technologies in the country, degree of openness of political system, motives of use of the World wide web, the main information interests and installations in the sphere of leisure activity. Such strategy of use of the Internet in which social installations and needs of people are reflected, we call behavior types on the Internet. Their allocation and the description is a basis of a clustering of the population on specifics of use of a global electronic network. Typology of Russians on types

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of the behavior realized by them on the Internet with application of the cluster analysis will allow to reveal the specific weight of the social groups which are characterized by a certain strategy of behavior in a cyberspace and substantially to describe these strategies.

The methodology of World Internet Project (WIP, „the World Internet the Project”), – the international research organization uniting scientists from 50 countries, for a uniform technique which are carrying out the mass polls fixing changes in dynamics, the contents and structure of Internet communication [14] forms a methodological basis of research. Base of carrying out the research WIP in Russia (2012 – until the present) is Institute for High-Hume Technologies in Social Computing Sholokhov Moscow State University for the Humanities. In 2012 the staff of the Institute carried out measurements of tendencies of Internet communication in Russia. In research results World Internet Project in Poland, reported by the Polish national team of this project are also used (N = 2007 respondents, selection is representative on a sex, age, living territory).

For data processing of poll and allocation of types of Internet cultures the method of k-averages of the cluster analysis of SPSS for Windows 18.0 was used. According to essence of a method variables with the interval and serial scales allowing to reveal similarity of objects were applied. Indicators which open behavioral aspect of use of a network are given below:

- Intensity of use of the Internet of the house (in a week),
- Intensity of use of the Internet at work (in a week),
- Intensity of use of the Internet in educational institutions (in a week),
- Intensity of use of the Internet somewhere else (in a week),
- Intensity of use of wireless mobile devices for Internet connection,
- Experience of use of wireless mobile devices for Internet connection,
- Intensity of use of e-mail,
- Intensity of communication in chats,
- Intensity of implementation of phone calls on the Internet,
- Intensity of filling by content of the blog,
- Intensity of placement of the photos or pictures on the Internet,
- Intensity of updating of the status on a social network,
- Intensity of comment activity,
- Intensity of search on the Internet of information connected with travel,
- Intensity of search on the Internet of information on new work,
- Intensity of reading/search on the Internet of jokes, comic content,
- Intensity of search on the Internet of information connected with health,
- Intensity of participation in games on the Internet,
- Intensity of shopping on the Internet,
- Intensity of booking of services online,

- Intensity of payment of accounts online,
- Intensity use online of services of banks,
- Intensity of commission of investments into actions/bonds/funds on the Internet,
- Intensity of search of definition of term/concept of the Internet,
- Intensity of information search about the concrete fact,
- Intensity of information search, connected with education,
- Intensity of distance learning.

Transformation of the selected variables is made for implementation of procedure of detection of similarity of objects and definition of types of behavior on the Internet:

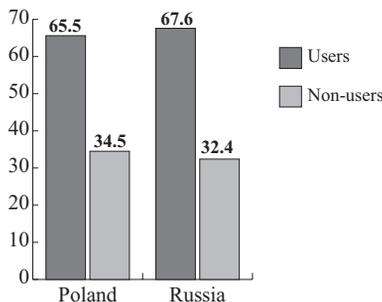
The block of questions of duration of use of the Internet in various places (houses, at work, on study, etc.) are averaged in the new variable „Intensity of Use of a Global Network”. It, on the one hand, allows leveling the distinction caused by the main employment of respondents: study, work, a household as activity dominants, and with another, – allows marking out intensity of use of the Internet.

- In the block of questions of intensity of use of various ways of Internet connection and about experience of application of the mobile Internet version of the answer „I find it difficult to answer” on sense corresponds to version of the answer „I don’t use this party”.
- Z-standardization of all selected variables is carried out.

Before analyzing results of the comparative cluster analysis of profiles of use of the Internet in Poland and in Russia, we will reveal social and demographic structure of users of these countries. First of all we will note that in Poland and Russia approximately identical ratio of users and not users (see fig. 1).

In Poland and Russia approximately each two of three citizens are involved in Internet communication. Also the social and demographic structure of users of these countries is quite similar. The gender isn’t a stratification barrier of use of the Internet: in Poland 66.0% of men and 63.0% of women – users; in Russia a ratio of similar indicators of 68% and 66%.

Figure 1



The age and education serve in Poland and in Russia as equally significant factors of an involvement into Internet-communication. Actually total penetration is characteristic for the younger generation of Russia (99%) and Poland (93%). And, on the contrary, elderly Poles and Russians are quite poorly included in Internet communication: respectively 11.4% and 12.6%. Education for Russians is slightly less important stratification barrier of use of the Internet, as a ratio of users with the high and low educational level of 80.6% and 60.6%. At the same time in Poland these indicators correspond as 70% and 46.5%.

For understanding of specifics of behavior of Poles and Russians in a global electronic network we will consider results of the cluster analysis (see table 1).

Table 1. Results of distribution of types of use of the Internet in Russia and in Poland.

Use profile	Poland	Russian
Human digital	8.2	5.9
Human entertaining	10.5	33.4
Human pragmatic	23.3	4.4
Human traditional	22.5	23.9
Human non-digital	35.5	32.4
Total	100.0	100.0

We will analyze substantial characteristics of the revealed types of use of the Internet as their representation in structure of use of a global network in Russia and in Poland.

The dominating cluster in structure of the Russian users is „Human entertaining”. Apparently from table 1, this type of use of the Internet is the most widespread strategy of behavior in a network for Russians. In Poland representation of this cluster is 3 times less. A social and demographic portrait of the typical representative of „Human entertaining” – the young people and girls of 18–34 years having or who are getting higher education most often single (not married). The Russians and Poles realizing this type of use of the Internet on average more often than others, use a global network almost also intensively outdoors, as well as in house conditions. These people, as a rule, use the mobile phone or the tablets for Internet connection therefore remain online actually constantly. As the dominating motives of use of the World Wide Web for representatives of the considered type entertainment and communication informal online serves. Their substantial characteristics of behavior in a network are defined by it. In particular, representatives like „Human entertaining” regularly (from several times a week before daily practice) make the following actions on the Internet: check/send post

and instant messages, place the content (a photo, video), read blogs, are engaged in search of comic content, play game online, load music, video, movies. Such people significantly more often than other respondents use social networks several times a day. Information behavior – „Human entertaining” almost completely becomes isolated on use of a global network that is expressed in consideration of the Internet as the main source of information, means of entertainment and communication. Enough representatives of the considered type are positive to the Internet as to an implementer of political subjectivity, expressing confidence that use of a global network allows:

- to have more opportunities for realization of the political rights and freedoms;
- to have more opportunities for discussion of actions of the government;
- it is better to understand actions of politicians;
- to realize that government officials have to pay more attention that users of a network think of them.

At the same time, when understanding great opportunities for the Internet in realization of political subjectivity, representatives of the analyzed cluster are apolitical, quite loyal to possibility of strengthening of control from the power over the maintenance of network content more likely and are focused mainly on leisure activity on the Internet.

The second for prevalence among the Russian Internet users is Internet culture of „Human traditional”. In Poland this cluster has approximately same representation in structure of users. Social and demographic signs of typical „Human traditional” – women and men of 45–59 years having secondary vocational education. Their behavior on the Internet is characterized by an irregularity of application of a global network. The people belonging to the analyzed cluster use the Internet generally at home that is connected with two circumstances:

- preference of the home computer for Internet connection;
- opportunity to receive houses the advisory help from younger family members in the course of use of a global network.

On the Internet „Human traditional” have no steady interests. On average several times a month representatives of this type use e-mail, social networks, carry out search of necessary information. In general the Internet is considered by representatives of this cluster as a minor source of information and only as an additional tool of communication. „Human traditional” is a cluster of the people belonging to „Party of the TV” and preferring direct communication. A global network for them – quite poorly mastered space which opportunities are realized by them not fully. In particular, representatives of the analyzed type aren’t ready to express consent to that the Internet allows to understand better actions of politicians or that a global network to force politicians to pay attention that users think of them. Thus, in fact, „Human traditional” is a type of behavior

on the Internet, characteristic, mainly, for that part of the senior age group of Russians who depend on a global network a little, use it as the minor channel of communication and an additional, situational source of information.

The cluster of „Human pragmatic” is a little widespread among Russians, but dominates among Poles. „Human pragmatic” is focused on functional use of a global network: as means of earning money or in professional interests. About two thirds of representatives of the analyzed cluster – the woman (66.5%), about a half of „pragmatists” – at the age of 35–59 years (57.2%), more than a third have incomplete higher or higher education (35.8%). Most often these people use the Internet of the house or at work and use to connection with a global network mainly the computer, is slightly more rare – phone or the tablet. These people quite seldom are interested in entertaining content or social networks; they are focused on information search, necessary for work, professional communication. For the Human pragmatic type consideration of a global network and television as equally significant sources of information and means of entertainment is characteristic. At the same time, on average intensity of use of these mass media doesn't exceed 4 hours a day (for comparison „The person having a good time” spends for use of the Internet till 12 o'clock in day). Therefore it is necessary to call representatives of the analyzed cluster the people making moderate audience of the Internet and television. Use opportunities of realization of consumer activity in a global network of pragmatics quite poorly (most often, because of mistrust to electronic financial operations), as well as resources of realization of political subjectivity.

In Poland and in Russia approximately equal number of the users adhering to strategy of behavior in the Human digital network. It is type of users of a global network for whom the Internet is habitat and vital space. The social and demographic portrait of this cluster is quite accurately outlined: the young people and girls at the age of 18–24 years who are getting higher education and not married. Actually representatives of this type carry out social activity virtually, in a cyberspace. Communication, information search, earning money, purchase of goods and services, realization of political subjectivity and other actions of „Human digital” carries out online. On average such people can use the Internet till 16 o'clock per day. „Human digital” applies all resources and possibilities of a global network much more intensively, than other Internet users. Such distinctive feature of these users as orientation to creation of Internet content is most indicative. „Human digital” are creators of the maintenance of a global network. And these people don't limit filling of Internet content to placement of a photo and video (as in a case with „Human entertaining”), their work on creation of content of a network can include development of the sites, blogs, other Internet resources. „Human digital” is a cluster of so-called Internet fanatic or Internet and

obsessed which recognize quite high importance of the World Wide Web and as implementers of political subjectivity. Representatives of this type not only realize great opportunities for political participation online, but also show the political subjectivity by means of placement of own political comments, and also creation of author's forums and other platforms for discussion of political problems.

Thus, in Poland and in Russia there are some common and peculiar features in behavior of citizens in Internet.

Among common features it is necessary to list:

- level of penetration of the Internet makes two thirds of the population;
- as significant social and demographic stratification factors of an involvement into Internet communication the age and education serve, there is an equality of genders in intensity of use of a global electronic network;
- the least widespread type of use of the Internet are «Human digital» which is characterized by immersion in the Internet and its consideration as vital space;
- it is widely presented in structure of users of the selected countries of «Human traditional», the most characteristic for elderly users and users of pre-retirement age.

Among distinctive features of Internet communication in Poland and Russia it is necessary to pay attention to prevalence of Poles of «Human pragmatic» against statistically not a significant share of the Russians belonging to this cluster. It speaks about perception Russians of the Internet first of all as leisure spaces while Poles use the Internet first of all in the pragmatically purposes.

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BEHAVIOR ON THE INTERNET OF POLES AND RUSSIANS: RESULTS OF THE COMPARATIVE CLUSTER ANALYSIS

The article presents the results of the comparative cluster analysis of of formation of Internet use profiles in Poland and in Russia by results of mass poll in 2012. The authors defined five types of Internet use profile: «Human digital», characterized by consideration of a global electronic network as vital environment and tool of social activity; «Human pragmatic» for which exclusively functional use of the Internet is peculiar; «Human entertain» as strategy of use of the Worldwide electronic network as means of leisure activity and informal communication; «Human traditional», differing in consideration of the Internet as minor source of information and «Human non digital» connected with refusal of use of a global electronic network. The paper described representation of various clusters realizing different types of Internet use profiles in the Polish society comparing to the Russian society in 2012.

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