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Homo Virtualis: existence in Internet space

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Abstract. The study of a person existence in Internet space is certainly an actual task, since the Internet is not only a source of innovation, but also the cause of society's transformations and the social and cultural problems that arise in connection with this. Computer network is global. It is used by people of different professions, age, level and nature of education, living around the world and belonging to different cultures. It complicates the problem of developing common standards of behavior, a system of norms and rules that could be widely accepted by all users. On the other hand, the Internet space can be viewed as a new form of existence where physical laws do not work, and in connection with this, social ones are often questioned. This paper focuses on how social norms regulate relations in Internet space. The authors represents the typology of deviant behavior in the network. The empirical basis of the research includes the sociological survey of students of the senior courses in the Institute of Computer Science and Technology of Peter the Great St. Petersburg Polytechnic University. Sociological survey allows to identify students' understanding of Internet space. The selection of students is conditioned by the fact that IT professionals are considered simultaneously as ordinary users of the network and as future professionals in this field.

Every day the number of internet users around the world is growing by tens of millions a month (at the beginning of 2018 it is already 4.1 billion [1]). The amount of time spent on the network is also rising today. Internet reality is becoming more important for a modern person. An increasing number of social processes are taking place in the network. E-commerce and online education, telemedicine, online public services are the most advanced areas of Internet technology. The qualitative nature of the changes associated with the widespread introduction of information technologies under the influence of Industry 4.0 and their impact on the social structure of society also lead to the emergence of new professions that are possible only in the Internet space. The rapid increase in time spent on the network is also associated with the pleasure obtained by one way or another (communication, playing, getting information of different kinds, creativity, etc.).

A huge variety of life spheres finds its application on the Internet. Every important thing for humanity is transferred there. The virtual space of the Internet aims to assemble the most complete reflection of physical space in the form of photo, audio, video and textual information.

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On the one hand, expanding multimedia capabilities permit organizations to create virtual objects on the network that simulate the real presence. Virtual tours, three-dimensional panoramic images, maps with the effect of movement allow you to visit tourist attractions and museums. On the other hand, a large number of individuals are trying to put online the maximum number of photos of their environment. Not limited by reflection, the Internet space changes, complements and transforms reality.

Apparent similarity only misleads unsophisticated users. There is the space of mirages and simulacra, where the authentic and imaginary things have equal rights. In this sense, individuality becomes not identical to a person. V. Serkova,A. Pylkin, A. Safonova, J. Savitskaya prove: "the difference between reality and its reflection is included in the symbolic simulative game of the binary code with all attempts to “maintain” the reality resembling political economy or psychoanalysis. Reality is degenerated into the hyper reality, into “something that has been always reproduced" [2].

The Internet claims its rights as a new form of existence, not reducible to the particular case of physical space. The immateriality of the Internet allows us to interpret it within the framework of classical philosophical concepts. "Virtuality" can be viewed either as an objectively existing "world of ideas (Plato's Eidos)" or according to the Aristotelian line as "the mental state, operating the categories of actual and potential". According to this line, virtual reality presents some specific content of consciousness, short-term actualization of potential states of consciousness, which is excluded from the physical space of reality [3].

Internet reality is heterogeneous. It contains a lot of "worlds" and logics, sometimes contradicting each other. It is like a complex of imaginary individual products of many people The Internet can be filled with different discourses, objects and worlds. We know that M. Heidegger regarded imagination as the ability to contemplate without the subject [4].

O. Shipunova, I. Berezovskaya E. Gashkova suggest that the Internet produces a stream of texts and is perceived not as an ordered system, but as spontaneity in which everything originates spontaneously and the traditional limitations are removed. One of the essential features of the Internet space is the absence of obligatory general rules for the existence of virtual worlds and meanings [5]. The contradiction and the absence of unified rules make it possible to classify the Internet space as chaos (i.e. "oblivion of existence" as an ordered world).

The ideal (intangible) nature of the Internet generates advantages and complexities unaccustomed to the physical world. The most obvious example is the ability to share digital objects without losing them. The psychological consequence of this advantage is the intuitive rejection of the concept of property in the network. It leads, for example, to problems associated with illegal downloading music, films, games, programmes.

In the sphere of education, we see the cases when students copy other’s intellectual property. Moreover, it is paradoxical for modern young people to complete the task themselves if the network has a solution. In the digital world, simple duplication is meaningless. The ability to find an answer in a network is recognized as a more valuable quality than the ability to solve the problem yourself. Teachers are faced with a situation where students prefer to spend a lot of time searching for a ready answer on the network than to decide it quickly on their own.

In addition, we should take into account the particular status of "presence" on the Internet. It would be very superficial to equate individual and someone who exists in the network. The difference is so great that it seems possible to introduce a new term describing the network manifestation of the person – Homo Virtualis. One individual can be represented on the network by several avatars / characters / communicators. A networked person may be presented not by one person but by several people or artificial intelligence. As Y. Shaev notes an individual tries to keep a distance between himself and

the world of virtual narrative, to realize that all that happens to him in the virtual world – is an illusion [6]. "I" on the Internet is different from the real person, because a person plays a certain role. Accordingly, man sometimes perceives "life" on the Internet as a subjective reality occurring in his head or in a dream. A virtual person is the result of reconstruction in a network communicative space of a genuine or fictitious image, the ontology of whom is connected with the real subject. At the same time, Homo Virtualis does not have a material body and consists exclusively of signs and actions.

Z. Tufekci point out that the modern Internet, because of the growing popularity of social networks, has ceased to be a refuge for something without "the body, gender, race, and nationality, a place where we could evaluate each other as" ideas", approximately since 2004 "the “social” phase of the Internet came of age" [7].

However, the game element of the network has remained. Individuality existing on the network does not necessarily have to coincide with the personality outside the Internet. Today even such personality has been acquiring more certainty by having personal data and history of communication. Z. Tufekci notes that social networks do not hide, but disclose data about a person, even those which he does not want to be open to the audience: "have all combined to make the Internet productive of clashes between different social roles" [7].

New communication opportunities not only accelerate the processes of information exchange, they easily convert personal facts to public data. Any interpersonal or group communication can easily be shared with the public. Special pages on social networks (like "overheard") of various social groups and organizations reveal what they say behind closed doors, incidents and scandals instantly penetrate the network, often accompanied by photos, videos or screenshots of correspondence. Personal pages in social networks can be an excellent source of information if a person for some reason attracts attention.

On the other hand, there are "communicative tunnels", capable of tying people who could not meet and unite in real space. As K. E. Razlogov supposes "new latent identities" [8] are appearing connecting people with rare special interests that could never unite without information and communication technologies. Moreover, G. Karimova &A. Shirkhanbeik claim that it is even possibleto speak about "a community of things", which is defined as "any group of things that shares common goals or interests and creates a social universe with its own values, rules, and vocabulary that is in a constant transformation and communication within time/space matrix" [9].

E. E. Taratuta considers: "the subordinate status of virtual reality ("non-reality") means that it is not completely determined by the social rules and mechanisms. Therefore it is beyond the sphere of ontological responsibility" [10]. Physical laws do not operate in the Internet. Moreover, social rules are questioned. Virtual reality (regarded by us as a special kind of graphical user interface which presents a computer-generated immersive, three-dimensional, interactive environment) has its own logic, including the legal aspects (there may be hyper-realistic gambling murders, abductions, thefts, etc.). Very often perception of what is happening as an illusion or a game removes the limitations of the moral order.

If you turn into the communicative space of the network in the form of social networks, forums, etc., you will see that the boundaries of what is allowed are noticeably expanding. The severity of the discussions intensifies, deliberate provocations (trolling) and various types of fraud, including those related to the substitution of identity take place, etc. In the network space, the concept of deception loses its certainty. According to the prevailing views, it can not be considered a hoax if you try to hide in the network your true identity. However, there is the question: how to interpret the fact of appropriation of another's identity through photographs and / or names, even if there is no any economic gain. . The treatment of virtual characters in general seems to be a purely game area, not regulated by any social norms, until it turns out that, for example, the person being shot looks like a clearly recognizable man.L. Evseeva and others suppose that today the impossibility of

virtual control and identification online swindlers, terrorist groups, religion sects, mentally disordered persons and charlatans frighten Society [11].

Any activity on the Internet is not only regulated by technical rules and capabilities, but can also be assessed in terms of compliance with legal and ethical standards. Moral law and moral responsibility are in a complex relationship with legal responsibility and with the legal rights of the user. While some researchers consider the implementation of the legal law to be a minimum requirement of morality, others question the ethical validity of certain laws, which in practice are often violated by computer users. Not only ordinary users, but also a number of representatives of the scientific community, defend the view that copying programs for non-commercial purposes can be morally permissible, even if it contradicts the law.

For example, in 2011 the site "Sci-Hub" was created to enable scientists to get acquainted with scientific research without having to pay expensive subscriptions. The creator of the site believes that laws on copyright close access to knowledge for most people, bringing enormous economic benefits to some individuals. When a request is made on the site, it is checked whether there is a required scientific work in the database. If there is no such scientific work, then the algorithm bypasses the paywall on the website of the publisher or the necessary journal. In May 2017 Sci-Hub's offerings included 56,246,220 articles from the corpus of scholarly literature, equating to 68.9% of all articles [13]. Studies show that this resource is used by the scientific community around the world, and the leaders in the number of downloads were Iran, China, India, Russia and the United States [13].

Today, many communication platforms of the network establish ethical rules or codes, which administrators or moderators can follow, and in practical user guides one can find information about "network etiquette". The opportunities of the global computer network are used by people of various professions, age, level and education, living in different countries and belonging to different cultures. All these facts complicate the problem of developing common standards of behavior, a system of ethical norms that could be widely accepted throughout the world. However, many researchers insist on the relevance of such a system today, infusing that understandable and feasible "traffic rules" are required for both amateurs and professionals working in the network.

Let's look at the process of regulating relations according to social norms in the Internet space. It is also important to find out the borderline between modern legislative regulation and the area of morality roughly. In the suggested scheme, two types of actions in the network that damage society are identified: misappropriation or attack (damage). The most law-governed types of misdeed in the network are economic crimes (fraud with bank cards (carding), notifications sent by quasi administrators of payment systems or from the bank, from quasi mail servers or from social networks for the purpose of obtaining passwords (phishing), and other methods of stealing electronic money). The object of the crime may not be money, but confidential information, which is a trade secret, personal information, including passwords and user data.

Particularly controversial is the issue of restrictions on the dissemination of information. On the one hand, the value of the Internet is evident as a space most adapted for an open exchange of views among a multitude of interested parties. On the other hand, there is information that can cause harm. For example, an Internet crime is the creation, distribution, and in some countries, viewing information related to child pornography. The most difficult problem is the question of political wars in the network, when the Internet is used for misinformation, manipulation, inciting conflicts, creating extremist groups. The government in this case resorts to various forms of censorship, up to blocking the Internet and arrests of users. However, modern software allows you to bypass network locks. Use of "fake news", automated "bot" accounts has been acting for many years. However, over the

last few years, the practice has become significantly more widespread and technically sophisticated, with bots, propaganda producers, and fake news outlets exploiting social media and search algorithms to ensure high visibility and seamless integration with trusted content [14]. However, information wars in the network can not be evaluated from the standpoint of ordinary social norms, as actions during the war can not be estimated from the point of view of the legislation and morality of peacetime.

Consider the results of the sociological survey conducted by the authors in September-November 2017. The goal was to find out students' view of the Internet space in the Institute of Computer Science and Technology of Peter the Great St. Petersburg Polytechnic University. An interesting part of the study is about the students' attitude to the future professions in the IT sector, presented in the Atlas of new professions. [14] According to the forecasts of researchers, in the next 10 years there will be technologies of very accurate recognition of Internet users online. It will be possible to track almost every click. Technologies from spyware and science fiction films can become a reality. It will be possible to identify the user of the device not only by scanning fingerprints or retina, but also by DNA analysis. Thus, this can lead to the fact that the boundaries between virtuality and the physical world will be blurred. It means that society in the digital space will be organized according to the same principles as the real society including state borders and government control. At the same time, a "digital gap" between people (in the level of computer literacy) will create a new kind of social stratification. Following this logic, there will be the legislation regulating cyberspace. "Electronic governments" will begin to work in full force and become much more interactive. However, are young specialists ready for such changes and how do they see the future in IT sphere. Already today, N-Tech. Lab has developed technology that allows you to find a profile in a social network in less than a second with an accuracy of 70%, which creates opportunities not only for dating but also for police investigations.

Respondents were the students of the senior courses of the Institute of Computer Science and Technology of Peter the Great St. Petersburg Polytechnic University. The choice of respondents' data was due to the possibility of considering IT specialists simultaneously as ordinary users of the network and future professionals in this field.

The sample set for the questionnaire survey of students was formed on the basis of a quota sample (N = 300 respondents). The sample of the survey was proportional to the specialties presented in the institute: fundamental informatics and information technologies, software and administration of information systems, computer science and computer technology, information systems and technologies, software engineering, applied informatics, information security, computer security, information security of automated systems, information-analytical security systems, instrumentation, quality management, system analysis and management, management in technical systems, innovation. In most cases, students were interviewed individually. In terms of quality, this survey approached a standardized interview. This provided a high degree of representativeness of the collected information. The socio-demographic and professional characteristics of the interviewed students are as follows: among the respondents 62% have a permanent job in their speciality, 13% have a part time job in their speciality (freelancers) and 25% – do not work. The gender composition of the respondents: men – 68%, women – 32%. Age structure: 20-22 years – 88%, 23-25 years – 12%.

Respondents were asked to choose the most interesting and least realistic profession in their opinion from the Atlas. [12] According to the results of the survey, such professions as the curator of information security, the IT-auditor, the developer of Big data models and the architect of information systems became popular. Particularly it is interesting that 95% of respondents claimed a cyber-researcher i.e. an expert in the investigation of cybercrime the least realistic profession. Giving reasons to their position, the students referred either to the

professional level (a stable view of the possibility to hide any of their actions on the Internet), or to the division of responsibility between the real and virtual worlds (punishment for action in the network can not go beyond it), or to the impossibility to organize society in the digital space on the same principles as in realness (the Internet as a zone of freedom). Thus, we see that young people do not believe that the virtual space of the network can be subject to legislative regulation.

This study also confirms the hypothesis that the virtual world is perceived by most users as not existing in the material world, hence the problem of the norms of existence in this reality arises. The less the connection of a particular area of the Internet with the physical world, the less rigid norms there are. There is a desire not to transfer the laws and morals of society to the Internet, leave this space free of sanctions for any actions and penalties from the state. It seems that a real person is not identical with a virtual person and therefore should not be punished for his actions outside the virtual framework. Separately, it is worth paying attention to the very concept of a virtual person, who is he? We imagine him without a material body; the "I" exists only in the virtual space of the network. However, this concept needs a more detailed study in the scientific world and the constant improvement of the definition in accordance with the development of the Internet, virtual reality, robotics, machine learning and artificial intelligence.

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