

Elaboration of approaches to internet negative impact resistance for university students

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Abstract

In the information society Internet technologies provide not only positive information and psychological impact but negative and destructive one either. The lack of attention to the problems of prevention and correction of destructive information impact on young students in higher education institutions negatively affects the development of intellectual abilities of students, their professional socialisation and it leads to the spiritual and moral degradation, economic and legal nihilism, which finally leads to a decrease the quality of training of future specialists. The research summarises and arranges theoretical and empirical studies on the problem of forming resistance to negative effects of Internet resources on university students and young adults. A set of resistance-forming and preventing Internet negative effects recommendations is elaborated and can be applied for the process of teaching. Complex methodology is used for elaboration of methodical positions and practical recommendations. The proposed concept enriches pedagogical theory, brings to the new level of research problems of information-psychological security of students online activity. The developed suggestions are

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theoretical contribution to the content and technology development of educational support safe and efficient use of information resources in the preparation of future specialists at the university.

1. Introduction

According to the results of current national and international researches, the youth is the target of negative effects in the Internet. Young adults are more addicted to anti-social and delinquent behavior in ICT-environment particularly they are assailable and perceptive to the ideas of "colour" and "Twitter" revolutions, violent extremism and xenophobia, criminalisation, intolerance and terrorist radicalization. The fundamental nature of the problem is that there is no any complex international approach of studying the problem of the negative influence produced by online resources on the youth in the global information development and in formation of transnational information and communication infrastructure in the modern world generally and in the modern Russian education discourse particularly.

1.1. Practical Aims of the Project

In modern information society various opportunities of the global Internet are widely used for conducting interstate information fights, information wars. The Internet is also applied in an internal political information antagonism, in the economic competition and organization activities that are under the conditions of conflict and opposition. Thus, according to the experts' estimations that were conducted in March, 2015 by the Russian Centre of Public Opinion Studying (Public Opinion Research Centre, 2014) In Russia the share of Internet users is about 69 percent (66 percent in 2014). Traditionally the youth represents the most active consumers of Internet content (among 18-24-year-old people practically everyone uses the Internet – 96 percent). The most popular content is media resources (music, movies, books) – 56 percent, searching of news and necessary information – on 55 percent, e-mail – 53 percent, work and study application – 50 percent. The Internet- users practice communication in social networks, chats and at forums – 44 percent, look for friends – 32 percent, playing games – 31 percent, doing shopping – 25 percent, visiting the sites of the erotic contents – 9 percent. The number of youth adults who appeal to the undesirable content is increasing all around the world.

Some Internet means actively propagandise violence, cruelty, drug, pornography and some other antisocial activities in the children's, teenage and young adults' environment. In Russia, according to the review of the Safe Internet Center (<http://www.saferunet.ru/>) the average age of a child who starts using 'the World Wide Web' is about 10. Every third of them spends not less than 3 hours a day. The experts of 'Kaspersky Lab' conducted the research of threats with which the users of the company products 'Parental Control module' faced during 2014 (Research of "Kaspersky Lab", 2014) 16% of all children who at least once faced the dangerous content were Russians. The number is 1.2 percent higher than in 2013. The similar indicator is noted in India – 13.4 percent. Further with a big separation there are China, the USA and Vietnam. About 65 percent of young users from Russia at least once addressed to porno resources, 38 percent – to the sites with information on the weapon, and 30 percent – to an online casino. Researches show that about 90 percent of children and teenagers faced pornography in the Network, but the disturbing is the fact that 65 percent from them are goal-seeking for pornography well-directly. Thus every third of these teenagers was exposed on the Internet to sexual harassments subsequently. Of late the growth of computer crimes is stated. Religious, nationalist and other extremist movements which by means of network interaction involve in the activity young people (social networks, video hostings, forums, blogs, e-mail and so on) (Chusavitina & Kurzaeva, 2014), (Ovchinnikova, Kurzaeva & Chusavitina, 2013), (Subrahmanyam & Smahel, 2011), (Chen, Jarvis & Macdonald, 2014) According to the experts the Research center CSIS (Center for Strategic and International Studies), the damage to the global economy from different

types of cybercrimes is about \$400 billion a year. Thus, the problem of ensuring information security for younger generation is becoming urgent.

Protection against information capable to do harm to life, health, moral, spiritual development of the younger generation is recognized as the state priority problem both by international law (Conventions of the UN on the rights of the child: Art. 13, 17), and the Russian legislation (The Decree of the Russian President of 17.12.1997 No. 1300 "About the Approval of National Security Concept of the Russian Federation"). The importance of finding the solution to the problem of children and young adults competence in the field of ensuring information security is also emphasised and in a number of standard and legal documents. In "The National Education Doctrine of the Russian Federation" it is stated that "strategic objectives of education are closely coordinated to problems of Russian society development, including creation of a basis for sustainable social, economic and spiritual development of Russia, providing high level quality life of the people and national security" (Resolution of the Russian Federation Government, 2000).

The Federal law N 436-FL "About Children Protection from Harmful Information that Destroys Their Health and Development" was put in force on September 1, 2013. Its aim is to protect children from negative influence on their mental and physical health of information distributed including by means of information and telecommunication networks, including the Internet and networks of mobile radiotelephone communication" (Rossiyskaya Gazeta, 297). The situation with the negative information impact on the youth is complicated by the fact that now there is lack of publications devoted to this antisocial phenomenon in scientific literature, in its turn it complicates carrying out actions for prevention and correction of negative information and psychological impact. Stating the development of separate aspects of information environment negative impact studying of the of the Internet on university students, the researchers concluded that in the system of the higher education there is a problem which is defined by contradictions between:

- the growing number of Internet users, amplitude and power of information environment impact on the youth mentality, their personality and behaviour, on the one side and lack of information for society about real increasing threats of social, political and economic character in information space of the Internet, on the other side;
- the increased needs for providing society information security for the state and the personality, in particular for students of higher education institutions, on the one hand, and negative growing tendencies of destructive, manipulative influence of the Internet information resources that have destructive influence on health, intellectual potential and psychological state of the youth;
- contradictions between the urgent necessity of creating scientifically based database of ensuring information and psychological security and the student identity development in the Internet environment with the use of the university educational capacity and lack of integration, systematization, structuring, classification of the accumulated theoretical knowledge on this problem in scientific researches;
- contradictions between objective necessity of Internet negative information and psychological influences prevention technique development for university students and an insufficient readiness of organizational, didactic elements of realization of this technique in the course of professional education, lack of competence at considerable part of modern high school teachers in the field including the use of positive potential the Internet in educational and extra class work with university students.

Thus, this project underlines the following important questions:

- Review of theoretical and methodological basis of solving problems of information-psychological security of students in the information environment of the Internet;

- The identification and classification of the main sources of risk in the information environment of the Internet, which could have a negative impact on the personality and behavior of university students;
- Concept development of preventive measures to negative information and psychological impact on the psyche and consciousness of young adults in the information environment of the Internet and its testing in the educational process of the university;
- Elaboration of methodical positions and practical recommendations on development, formation and evolution of negative effects preventive systems of the Internet resources on the students' personality in the educational process of the university.

1.2. Theoretical Background of the Project

A number of aspects of the chosen problem have been investigated in the modern science. The scientists consider this problem in close connection with social and philosophical problems of information wars; from the point of view of theory and practice of education in the field of information security and information; with ensuring information and psychological safety of the personality and society and negative impact of Internet technologies such as the deviant behavior. [(Nedosekina, 2014), (Davies, 2009)] The questions of globalisation and informatisation were investigated by researchers of different countries. "Globalisation has only exacerbated the problem ...This process generates a feeling of disharmony, conflict, misunderstanding on each other's parts, forming not joint universal human values, but national, even class, opposition ones (supremacy – independence, monopoly – anti-monopolism, globalism – anti-globalism and so on). ... globalisation causes bigger migration, the mixing of peoples and cultures, the loss of connection with the tradition, the ethnic group and the land of the ancestors." (Zerkina, Lomakina & Kostina, 2014, p.255) The important contribution is made by modern researchers on the problem of applying manipulation in the conditions of globalisation and development of information and communicative technologies. The use of modern information and communicative means can cause undesirable psychology and pedagogical negative factors of ICT negative impact on physical health of users. "The widespread of info-communication technologies in all spheres of human activities gives rise to new threats that in some cases may lead to violation of the constitutional human rights, threaten the stability of the State and public life." (Chusavitina & Zerkina (5) 2015, p.515)

Despite the variety of modern approaches, theories of separate aspects research of pedagogical prevention and correction of negative information impacts on the youth on the Internet, we came to a conclusion that there are problems in system of the higher education that are connected with generalisation, systematisation of theoretical and empirical material, development of a technique to form the students' resistance to negative influence of the Internet resources in the context of information society formation. This project contributes to formulation and solution of the new scientific problem of university students' information and psychological security in the Internet environment, which is of great socio-cultural value, opening a new perspective direction of scientific and pedagogical research related to the study potential of the Internet.

The problem of elaboration of approaches to Internet negative impact resistance for university students is close to pedagogical staff training because it contributes to forming the competence that "... is defined as an integrated feature of an individual character that allows conducting professional and social activities ...A person is also supplied with the basics of Internet security and anti cybercrimes activities that are based on respecting human rights, democracy, and tolerance. (Chusavitina & Zerkina (4), 2015, p.277) Scientific novelty and originality of the proposed problem formulation is to develop a conceptual framework reflecting methodological, theoretical, empirical and practical aspects of formation resistance of university students to the negative effects of the Internet. The developed suggestions are theoretical contribution to the content and technology

development of educational support safe and efficient use of information resources in the preparation of future specialists at the university.

1.3 Techniques and Methods of University Students' Resistance to Negative Influence of Internet Resource Formation in the Context of Information Security Ensuring

The solution of the problem of university students' resistance to negative influence of internet resource formation in the context of information security ensuring was carried out by means of a complex of methods: theoretical (comparative and system analysis; forecasting; analogy; modelling); empirical (content analysis of resources of the Internet; cyber metric, the included supervision; questioning; interviewing; diagnosing; studying and synthesis of pedagogical experience). In the course of research methods of the structural analysis and modeling, "case-study", programming methods, the intellectual analysis of data, modeling, quantitative and qualitative methods of risks estimation, methods of mathematical statistics and expert estimates, etc. were applied. (Chernova, 2008) Such techniques of psychological diagnostics as Kimberly Young's test for Internet Addiction, V. Loskutova's test, Criteria of computer addiction diagnostics of I. Goldberg, Criteria of computer addiction diagnostics of H.O Maress, Test for Internet addiction of Kulakov S. A., Technique of screening computer addiction diagnostics of Yuryev L.N., T. Yu. Bolbot, diagnostic questionnaire of Internet-addiction by Katkov A.L., Amanov Zh.Sh. et al. "The Method of Anti-manipulations" ("the Anti-m Method") developed by S. A. Zelinsky; technicians of social engineering and so forth were applied. In educational process of higher education institution various mechanisms were used for preventing the negative information and psychological influences on mentality and consciousness of the student in the Internet information environment. (Chusavitina & Chusavitin 2013), (Kurzaeva, 2014) The new subjects connected with the discussion of problems of university students' resistance to negative influence of Internet resource formation were introduced into the disciplines content of masters and bachelors training of NMGU ('Psychology', 'Sociology', 'Bases of Information Security and so on).

The number of negative influences of the Internet were considered at class with the students: information overloads; entropy; aggressive mass and communicative influence (propaganda of hatred and violence, misinformation, manipulation with consciousness, distribution of rumours and so on); resocialisation (substitutions of real life in human society with virtual life on the Internet); virtualization (ignoring or virtualization of responsibility); provocation and initiation of conflict situations; primitivisation (simplifications of forms, ways of communication); vulgarization (promoting, an admissibility of obscene expressions, pornographies in Internet content); criminalization; gamisation (process of penetration of various elements of the game world to other spheres of life) and so forth.

There were analyzed different possible destructive information and psychological consequences of the Internet use which are expressed in the development of different types of youth deviant behaviour. The youth deviant behavior is a type of deviant behavior of an individual (a group of individuals) representing the system of the acts (or separate acts) that are associated with ICT application (or concerning ICT) that causes damage (moral, physical, economic and other) to society, the organizations, individuals or the personality. There were considered main types of the deviations concerned and associated with the use of ICT are: asocial behavior (cyber hooliganism, a cyber bullying and cyber oppressions, mania for virtual sex and so on), delinquent (computer crimes, cyberterrorism), addictive (Internet dependence, gaming) and hyper abilities in the ICT field (hacking).

On real examples from the Internet students diagnosed manipulations, such as: the use of stereotypes; replacement of names, or 'gluing of labels'; repetition of information; statement; statement of rhetorical questions; half-truth; 'default spiral'; anonymous authority; 'the ordinary story'. There were also studied manipulations technologies such as spam and trolling in the Internet, microblogs; social networks; video hosting; DDoS-attacks; Internet bots, information media leakages and so on. The cyber bullying phenomenon was studied in detail. Cyber bullying is understood as the

deliberate and proceeding throughout a certain period of time aggressive actions that are aimed at causing psychological harm to the person. It is carried out through e-mail, services of instant messages, in chats, social networks, on the web sites, and also by means of mobile communication. There were also considered cyber bullying forms, such as flaming, continuous wearisome attacks, slander, imposture, defrauding of confidential information, cyber prosecution, happy slapping. The preventive measures that are capable to stop universal distribution of cyber prosecution and also cyber bullying struggling measures are studied. The scopes of students', young scientists', teachers' and graduate students' research works and materials of scientific research were renewed in the course and degree papers.

2. Conclusion

In the conditions of globalisation and improvement the information and communication technologies (ICT), the Internet attracts the increasing number of active part of the population. The Internet influence is not only positive but negative either. It is connected with threats of destructive information influences in relation to an individual, social group, the state, and all mankind in general. Under the influence of the latest Internet technologies that are applied as means of communication and suppliers of information goods and services, sharp reduction of state institutes capacity in mass consciousness formation and young people outlook is observed. The traditional media possibilities of controlling the youth-orientated information streams are decreasing. In information society the essence of communication in many respects is not established by a source but by the consumer of the information and Internet resources. Thus, it is turning into the agent of youth queries satisfaction that gives all new opportunities for communication, entertainments and education. Destructive influence of the Internet information resources is shown in violations of physical and mental health of users, in causing damage in personal, social, economic, political spheres. According to the conducted researches in different countries, the youth is a target of the Internet negative information and psychological impacts. It tends towards addictive, asocial and delinquent behavior in the ICT environment. The youth is especially assailable to ideas of 'colour' and 'Twitter' of revolutions, violent extremism, xenophobia, intolerance and terrorist radicalization. Internet addiction also generates various economic problems: huge losses of owners from piracy production, damage from using social networks in working hours, financial costs of Internet users of online purchases and so forth. The insufficient attention in the higher education system to the problems of physical and mental health violation of Internet users, information overloads, deviant behavior of youth in the information environment the Internet negatively effects on students mental abilities development, their professional socialization, conducts to spiritual and moral degradation, economic and legal nihilism that, in the long run, leads to decline of vocational training quality of future specialists.

Our research promotes stating and the solving the new scientific problem of ensuring the information and psychological security of university students in the Internet environment that has important sociocultural value and opens the new perspective of the scientific and pedagogical researches connected with the Internet potential studying. Scientific novelty and originality of the problem consists in elaboration of the conceptual bases that reflect methodological, theoretical, empirical and practical aspects of formation of university students' resistance to negative influence of Internet resources. The discussed in article methodology contributes to pedagogical theory enriching and brings the research of information security problem to the new level. The main directions of practice for building effective educational interaction between students and teachers in the process of training future specialists with use of ICT at university are defined and developed. The developed ideas are the theoretical contribution to justification of scientific bases of information and psychological security of the Internet user personality, to development of the contents, technologies of pedagogical maintenance of the university student negative deviant behavior prevention and correction in the ICT environment. This research will be continued in the direction of generalization, systematisation of theoretical and empirical material, development of a complex of the theoretic and methodological

bases and methodical providing of the concept creation and pedagogical model of students negative influence to resources of the Internet in the context of providing the information security.

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