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Internet Activity and Internet Addiction: Where is the Borderline in Developing One's Information Competency?

Natalia P. Tabachuk [1*], Irina A. Ledovskikh [1], Nadezhda A. Shulika [2], Victor A. Kazinets [3], Anatolii E. Polichka [1]

[1] Pacific National University, Khabarovsk, RUSSIA
[2] Far Eastern State Transport University, Khabarovsk, RUSSIA

ABSTRACT

The relevance of the research is associated with the fact that information technologies, social services of the Internet and the very cyberspace are changing rapidly adding into the human life new facets of existence and interaction, new opportunities to act, manifestations of mental processes and personality features, one of them being information competency. These changes affect the way the understanding of such phenomena as Internet activity and Internet addiction throughout the development of one's information competency is shaped. With regard to this, the paper is aimed at finding out the signs of Internet activity and its transition into Internet addiction in the development of an individual's information competency. The leading methods for researching this problem are extrapolation and modeling that allow considering the approaches to understanding the "Internet activity" and "Internet addiction" phenomena in pedagogical and psychological literature in their entirety and in comparison, analyzing the Internet risks, and describing the mechanisms of transformation of Internet activity into Internet addiction during the development of an individual's information competency. In the paper, the following phenomena are defined: the "Internet activity" as a part of daily culture of a person belonging to digital society and the "Internet addiction" as acquired behavior based on the intensity of the wish to stay in the Internet continuously and affecting the development of an individual's information competency in the context of changing its role both in the real and virtual life. In the paper, it is emphasized that a certain development level of an individual's information competency is manifested in the individual's Internet activity while excessive Internet activity practiced by the individual triggers the mechanisms of its transformation into Internet addiction. The materials of the paper are of practical importance for master's degree students, postgraduate students, teachers of higher education institutions and teachers of educational institutions conducting research in this area that set objectives associated with looking for pedagogical means for individuals to practice their Internet activity without running into Internet addiction.

Keywords: Internet activity, Internet addiction, information competency an individual's, cyber environment, mosaic thinking, push-button culture, manipulative technologies, reputation power-leveling

Contribution of this paper to the literature

- In the paper, the approaches to outlining and understanding the phenomena of individual's Internet activity and Internet addiction in the works of the Russian and foreign researchers that allow considering them as the contemporary medical, social and psychological research objects are outlined.
- The authors detail the Internet risks of Internet activity passing on to Internet addiction during the development of an individual's information competency. In order to minimize them, responsibility and skills of working with information as a category of information law have to be shaped in the individual.
- The mechanisms of transformation of Internet activity into Internet addiction during one's information competency development process are described; the knowledge of them serves as a warning for an individual about the destructive impact cyber environment has on the personality. While singling out pedagogical means to help one develop one's information competency independently – which will enable one to manifest Internet activity in real effort without having to deal with the problem of Internet addiction in real life, the authors pay attention to the set of professional competencies the development of which allows reducing the Internet risks to the minimum and controlling the mechanisms of transformation of an individual's Internet activity into Internet addiction.
- Based on analyzing the research problem, it is proven that there is no clear borderline between the manifestation of Internet activity in an individual and its transition to Internet addiction but knowing these transformation mechanisms warns one against the destructive impact of cyber environment on the personality.

INTRODUCTION

Currently, the question about the borderline between Internet activity and Internet addiction and its impact on the particularities of one's online activity and information competency is becoming especially relevant.

It should be pointed out that the speed at which the Internet is propagated and the frequency it is used among the young people are growing faster than their information competency. Mastering the information technologies and online services in an unregulated manner, the students fail to learn neither about the abundance of opportunities granted to them by the Internet nor the methods of protection against possible problems associated with the Internet risks, online threats and Internet addiction. The Internet spreading fast has brought about numerous studies of advantages and disadvantages of expanding one's Internet activity. One of the first Russian scientists to have become interested in this range of problems is Voiskounsky (2008).

Voiskounsky (2013) points out that the history of creation and development of the Internet fits in one human life that can be considered as a period of establishment and cultivation of an individual's information competency with factors that are both supporting and destroying it, such as Internet activity and Internet addiction.

In the contemporary conditions, for the young people as users of the Internet that feature Internet activity, the shortage of knowledge, skills, motivation and responsibility in developing their own level of information competency. This shortage is quite frequently coupled with an illusion of literacy and security, which provokes dangerous situations and blurs out the borderline between Internet activity and Internet addiction.

Internet addiction is a relatively new problem to science. Due to this, it is debatable and it generates numerous questions associated with it, one of them being: where is the borderline between Internet activity and Internet addiction in the development of an individual's information competency? It is this question that becomes the cornerstone of the authors' studies including exploring both cyberspace as quite a special sphere of human activity, the Internet risks in cyber environment, looking for mechanisms of transformation of Internet activity into Internet addiction, and the analysis of pedagogical means for manifesting Internet activity without passing on to Internet addiction.

LITERATURE REVIEW

Having considered numerous studies conducted in exploring individual's Internet activity (Cheremoshkina, 2010; Galushkin, 2015,2018; Kvon et al., 2018; Soldatova & Rasskazova, 2016; Sushkov & Kozlova, 2015; Tabachuk, 2018a, 2018b), the authors have come to the conclusion that each of the said researchers views this phenomenon in different contexts of its existence in cyber environment. They call it user activity (Soldatova & Rasskazova, 2016), online-activity (Tsoy, 2018), cyber-activity (Cheremoshkina, 2010), Internet activity (Sushkov & Kozlova, 2015; Tabachuk et al., 2018), etc. Many scientists link this phenomenon to Internet addiction.

The problem of Internet addiction as a medical, social and psychological phenomenon is detailed in works by the Russian and foreign scientists (Orzack & Orzack, 1999; Soldatkin, Dyachenko & Mavani, 2013; Sushkov &

Kozlova, 2015; Tabachuk, 2017a, 2017b, 2017c; Voiskounsky, 2016; Young, 2007; Young & Nabuco de Abreu, 2017; Young & Nabuco de Abreu, 2017; Young & Rogers, 1998; Yuan, Qin & Wang, 2011; Zaretskaya, 2017). There are various description aspects to it and approaches to studying the problem. This phenomenon is described within the following terminological framework: computer addiction disorders (Orzack & Orzack, 1999), Internet addiction disorders (Caplan, 2002; Young & Christakis, 2010; Young & Nabuco de Abreu, 2017; Young & Rogers, 1998; Yuan, Qin & Wang, 2011), computer addiction (Soldatkin, Dyachenko & Mavani, 2013; Zaretskaya, 2017), the "flow" experience and cyber-addiction (Voiskounsky, 2008, 2013, 2016), Internet addiction (Gimaliev et al., 2018; Potapova et al., 2018; Sushkov & Kozlova, 2015; Tabachuk, 2017a, 2017b, 2017c; Tsoy, 2018; Zaretskaya, 2017) etc.

The following approaches to studying Internet addiction are singled out: the nosological one (Internet addiction as a disease, through a set of symptoms, this is "medicalization" of Internet addiction) (Orzack & Orzack, 1999; Young, 2007); the social and psychological one (the impact of social environment on the emergence of Internet addiction, admitting the escapist function of the Internet as a flight from reality) (Zhukova & Teperik, 2009); and the dialectical approach presenting Internet addiction as a naturally changing research object of compensatory type (Zaretskaya, 2017).

This sphere of research is currently being developed and systemized. Many of the listed researchers point out the problem of transformation of an individual's Internet activity into Internet addiction. The authors have added to this range of problems the fact that these two phenomena play an important part in establishment of one's information competency by supporting and by destroying it.

The ever increasing interest in the phenomenon of an individual's information competency is associated by the authors with the rapid development of digital society and cyber environment. Both Russian and foreign scientists (Arabadzhi, 2012; Boyatzis, 2008; Kolyeva, 2013; Kosorukova, 2015; Larionova et al., 2017; Makhaeva, 2014; Pechinskaya, 2011; Prilepina, 2009; Tabachuk, 2016) see in this phenomenon one of the main professional competencies which a person of the 21st century has to possess. Each of the researchers details different facets of the phenomenon for different age categories, but they share the fact that they link the phenomenon of information competency to the individual psychological formation, an ability that allows one not only to contribute to the development of culture and the society in general but also acts as an important life activity resource (Tabachuk et al., 2018).

Studies of this area are relevant and have to be repeated and expanded because both technologies and social services of the Internet, just like the very cyberspace, are changing rapidly adding into the human life new facets of existence and interaction, new opportunities to act, manifestations of mental processes and personality features, one of them being information competency.

RESEARCH METHODS

The subject of the research is the phenomena of the modern times – Internet activity and Internet addiction – that affect the development of an individual's information competency by supporting and destroying it.

The objective of the research consists in revealing the attributes of Internet activity and its transiting to Internet addiction during the development of an individual's information competency.

The following tasks were fulfilled in accordance with the subject and the objective of the research:

1 Analyzing the approaches to understanding of the "Internet activity" and "Internet addiction" phenomena in pedagogical and psychological literature;

2 Analyzing the Internet risks of Internet activity passing on to Internet addiction during the development of one's information competency;

3 Detailing the mechanisms of transformation of Internet activity into Internet addiction in the process of development of an individual's information competency;

4 Wording a number of provisions for helping one develop one's information competency independently, having identified pedagogical means that will enable one to manifest Internet activity in real effort without having to deal with the problem of Internet addiction in real life.

In order to achieve the objective of the research, fulfilling the tasks posed, a set of mutually complementing research methods was used: the analysis of psychological and pedagogical literature, extrapolation, modeling. The methods employed were appropriate for the tasks set, which has enabled the authors to register the results in analyzing the subject of the research.

RESULTS AND DISCUSSION

The Essence of the "Internet Activity" And "Internet Addiction" Phenomena in Pedagogical and Psychological Literature

In order to identify the essence of the phenomena of Internet activity and Internet addiction, the analysis of pedagogical and psychological literature and the contemporary studies is going to be conducted, focusing on the aspects that stimulate them and are associated with developing one's information competency. As a phenomenon, Internet activity has frequently been mentioned in research of the recent years and has been perceived as a synonym to user activity, online-activity, and cyber-activity.

In particular, Soldatova and Rasskazova (2016) using the term "user activity" in their research link it to intergenerational engagement as a factor for overcoming the "digital divide". Meanwhile, they point out user activity of adolescents and that of their parents cannot be understood without taking into account their flow of communication about the Internet.

In the studies of Tsoy (2018), the problem of expansion of one's online-activity generating the phenomenon of Internet addiction is emphasized.

Cheremoshkina (2010) details the relation between cyber-activity and cognitive processes manifested in the real world, or, more precisely, the mnemic capacities.

Internet activity being the manifestation of an individual's need of a collective subject is another facet in studies of Internet activity that were conducted by Sushkov and Kozlova (2015). They emphasize the possibility of a virtual collective subject existing in an individual's consciousness, with the subject driving the individual to practice excessive Internet activity.

In this research, the authors are going to use the term of an individual's Internet activity. In their understanding, Internet activity is a part of daily culture of a person belonging to digital society. Internet activity has the following types: search systems, fileshare networks, information download forms, social networks, e-mail, online games, the Internet conferences, forums, the Internet shops, blogging, digital payment systems etc. One manifests a certain level of development of one's information competency in one's Internet activity. Excessive Internet activity practiced by an individual triggers the mechanisms of its transforming into Internet addiction.

The following terms are in sync with Internet addiction as a medical, social and psychological phenomenon: computer addiction disorders, online and Internet addiction disorders, computer addiction, the "flow" experience and cyber-addiction.

Orzack and Orzack (1999) define Internet addiction as a disease through a set of symptoms, "medicalizing" it. They have subdivided the symptoms and signs of Internet addiction into two types, the psychological and the physiological ones. To psychological symptoms, they referred excitement when being in the Internet, a gradual need of increasing the online time, the inability to plan and organize one's life on one's own, neglecting the professional and personal spheres of activity, the inability to step back or to take a break from one's computer activity, irritation towards people around one at their attempts to interfere with one's online actions, unwillingness to accept criticism of the similar lifestyle, readiness to lie to friends and close ones about the quantity of time spent online and the frequency of sessions, persistent thoughts about the Internet during times when it is impossible to go online, the urge to spend increasingly more money for online entertainment, and so on. Physiological symptoms include carpal tunnel syndrome, eye dryness, migraine-like headaches, back pains, missing one's meals, neglecting one's personal hygiene, sleep disorders and altered sleep patterns (Orzack & Orzack, 1999).

The studies of the Internet addiction phenomenon by Young (1998a, 1998b; 2007), the American psychologist, and her followers Christakis (2010), Young and Nabuco de Abreu (2011, 2017), Yuan, Qin and Wang (2011) are considered by the authors to be of interest.

In her studies, Young (1998a, 1998b) uses the term "Internet addiction disorder" and characterizes it as a complicated phenomenon comprising also the psychological escapism, i.e. flight from the real life into virtuality, to which people having certain psychopathologic features are prone. The researcher has singled out several types of Internet addiction disorders: persistent need of the Web – online gambling, continuous shopping; information overload (compulsive web-surfing) – browsing the Web incessantly, looking for information in databases and search engines etc. She has identified several causes of emergence of Internet addiction disorders to which she referred the following: accessibility of information and the simplicity of use, anonymity of communication and absence of mediators; excitement, emotional uplift caused by the results of activity in the Web.

According to the data of Young (2007), the following features are characteristic for Internet addicts: individualism, wariness, propensity to oversized response to other people's words, egocentrism, loneliness, depression, low self-esteem, difficulty expressing one's feelings.

Wang (Yuan, Qin, & Wang, 2011) singles out the following Internet addiction disorder indicators: poor self-control, social escapism (flight from the reality), virtual identity.

The Russian scientists (Soldatkin, Dyachenko, & Mavani, 2013; Zaretskaya, 2017; Zhukova & Teperik, 2009), point out that computer addiction is associated with communication problems caused by egocentrism and emotional insensitivity. They note the "migration" to the virtual world may be caused by dissatisfaction with daily life, a need of free "uninhibited" communication, self-expression, and security.

The Russian psychologist Voiskounsky (2008) calls the "flow" experience the most relevant psychological analogue for the phenomenon of Internet addiction. The "flow" experience should be understood as the sense of being carried away into a new reality that leads to distortion of the sense of time, distraction from the physical and social environment around one. He uses the term cyber-addiction. According to Voiskounsky (2016), cyber-addiction can be considered one of the manifestations of immersion (preoccupation with cyberspace services). The potential prospect of immersion is considered to be the development of aggressiveness and cruelty in individuals. The researcher focuses the attention of the scientific community on the development of such area as the psychology of the Internet, cyber-psychology, psychology of cyberspace.

In her studies of the phenomenon of Internet addiction, Tsoy (2018) links this phenomenon to the problem of loneliness of individuals. She notes that Internet-addicted behavior is not equated with the excessive use of the computer and the Internet, although it is one of the symptoms of its emergence. The term "Internet addiction" is understood as deviating behavior associated with over-indulgence of the Internet but not reduced solely to it (Tsoy, 2018).

According to the authors' understanding, Internet addiction is the complicated, studied and contemporary medical, social and psychological phenomenon. It is considered by the authors as acquired behavior based on intensity of the wish to remain online continuously that influences the development of an individual's information competency within the context of changing its role in the real and virtual life.

Thus, the approaches of American scientists to determining the phenomenon of Internet addiction differ from the standpoints of representatives of the Russian science in the fact that the American researchers are focused on the individual as the carrier of properties and characteristics while the Russian scientists see social subtext in the problem of Internet addiction and the influence of social environment on expansion of the problem.

The Essence of the "Internet Activity" and "Internet Addiction" Phenomena in Pedagogical and Psychological Literature

The Internet environment and digital world transform one's life activity. In the sphere of education, this transformation is associated with attributions of the modern times to which such authors as Soldatova et al. (2013) refer diversity, complexity, flexibility, ambiguity, mobility, quickness, paradoxality and uncertainty that have superseded equilibrium and stability (Soldatova et al., 2013). These attributions affect organization of the educational process and digital society in general. Considering the total of them, it can be argued that they characterize the Internet environment with its positive and negative aspects too.

As of today, the Internet is a factor determining a new way of life. The audience of the Internet is growing rapidly. For individuals, the Internet is a tool for working with information, a means of communication and operating one's finances. Within the educational space, cyber environment acts as the vehicle for developing an individual's information competency and manifesting the individual's Internet activity.

As a characteristic of an individual, Internet activity is associated with shaping oneself as an active subject within the virtual space, with seeking the spotlight as a condition of relative independence and autonomy, with the extent of self-presentation, and with easiness of making interpersonal contacts.

Meanwhile, excessive Internet activity triggers such phenomena as conformity, stereotyping processes, depersonalization, a wish to manipulate others, excessive manifestation of publicity, and aloofness from the real world (escapism).

As it is noted by Sushkov and Kozlova (2015), in this case the Internet turns into a sort of "imitation social environment", with cyber environment becoming the prevailing one in an individual's communications and perceived by the individual as a more efficient and more comfortable one.

Internet activity acts as a borderline between human existence in reality and in virtuality. With regard to this, if the borderline is crossed, excessive Internet activity grows into Internet addiction. Then it becomes essential to point out the Internet risks of the virtual space in the educational process. By the Internet risks, mechanisms triggering the processes of transiting from Internet activity to Internet addiction and loss of contact with reality in the Internet environment (Dvoryankina, 2018) are going to be meant.

Let the classification of the Internet risks presented by the authors Soldatova et al. (2013) in the book "The Internet: opportunities, competencies, security" (Sushkov & Kozlova, 2015) be given now. The Internet risks are subdivided into the content-related, communication, consumer, and technical ones.

In the development of an individual's information competency, the content-related risks may result from the Internet fakes emerging (bogus, copypaste or made-up information being created). One of the constituents of an individual's information competency is the ability to use the Internet in a safe and clear-eyed manner. With the emergence of the Internet fakes, one's responsibility for the result of one's activity is increased and so is the need of critical thinking. Content-related risks are also linked to the use of illegal and harmful information in the Web. In the educational process, such content generates the subjects' efforts in filtering the network materials: texts, images, links to various resources etc.

Communication risks in developing an individual's information competency arise in the process of communication and person-to-person interaction of subjects in the Internet. Cyber-bullying, or online threats via digital communication, may occur in the network communities, in using distance technologies and social networks. Due to this, in developing individuals' information competency, they have to be acquainted with these risks, and attention has to be paid to developing the netiquette in people without bullying and threats.

Speaking about an individual's information competency, it is not only skills of working with information as a category of information law and user skills, but also responsibility that is meant.

The understanding of one's rights and liabilities, behavior rules in the digital world is associated with responsibility being the component of one's information competency. The questions related to responsibility correspond directly to the problem of security of services rendered via the Internet (theft, hoax, fraud, hacking) and describe consumer and technical risks.

Therefore, keeping the Internet risks in developing an individual's information competency to the minimum is associated with shaping responsibility and skills of working with information as a category of information law in the individual.

Transformation Mechanisms of Internet Activity into Internet Addiction in the Process of One's Information Competency Development

Currently, a person having professional competencies, the information one included, is more successful in various spheres of activity, so attention has to be paid to developing the competencies. It should be pointed out that in the sphere of Russian education the competency-based approach plays quite an important part and it is implemented in the new generation educational standards. Nowadays educational environment and cyber environment coexist in the real life and affect the way mechanisms of transformation of Internet activity into Internet addiction are shaped in developing one's information competency.

The mechanisms of transformation of Internet activity into Internet addiction in the process of development an individual's information competency are:

1. "Mosaic thinking", "push-button culture".
2. Manipulations and manipulative technologies.
3. Internet faking.
4. "Reputation power-leveling".
5. Social frustration as one's dissatisfaction with one's social status, achievements in the society and relations with other people.
6. Escapism as the flight from the reality.
7. Mobility as "incapacitation" associated with an acute feeling of nearly the most essential aspects of existence being missing even in case of a temporary lack of access to the PC, smartphone and the Internet.
8. Online threats: persistent need of staying online – online gaming, continuous shopping, information overload (compulsive web-surfing) – endless browsing, looking for information in databases and search engines.
9. Coping behavior as a response and manifestation of compensatory mechanisms within the system of adaptation to stress situations of the actual and virtual reality, one's behavior tactics in a threat situation, the strategy aimed at overcoming the stress by psychological means.

Why are these mechanisms referred to the borderline condition? This is so because each of them features both positive and negative aspects of affecting the development of an individual in general and the individual's information competency in particular.

Let some of the mechanisms be discussed in more detail below.

"Mosaic thinking", "push-button culture". The contemporary scientific research (Korneeva, 2006; Soldatova et al., 2013; Tarasenko, 2018) puts up the question about the phenomenon of "mosaic thinking" affecting the human and its development process.

In the studies of Tarasenko (2018), the specific way of self-organization of the media world, the "push-button culture" world, is pointed out. He introduced the term "the mouse-clicking human" to denote a dweller of the media world, as opposed to "the reading human" – one of the world of libraries.

"The mouse-clicking human" marks a transition from the ways of understanding in cultural practices of reading paper-based texts to the ways of understanding in cultural practices of mastering the media interactions. "The mouse-clicking human" changes the world by interaction and the changed world changes "the mouse-clicking human". As a macro-sturcture, "the mouse-clicking human" is a self-organizing total of links and references (Tarasenko, 2018).

In the work of Korneeva (2006), the phenomenon of "the mouse-clicking human" is paid attention, too. She notes the human constructs his own life and himself by means of the "mouse", opening one page after another, visiting a website and exchanging the information in chats and e-mails. "The mouse-clicking human" is the subject of "push-button culture". Within "push-button culture", knowledge is received "from the windows".

The "window-based" knowledge is the patchy and fragmentary one, and it is only on the human, on his cognitive abilities, the ability to subdivide the obtained information into the important and unimportant one that it depends what he is going to see this world like, how he is going to comprehend it, and what he is going to do in the future.

Soldatova et al. (2013) say "the mosaic thinking" began to take shape long before the Internet – as soon as television got more channels and the option to switch between them. It is built on visual images and not on logic and text associations; it implies processing the information in small doses. The phenomenon of "mosaic thinking" is a sign of a most crucial point is being experienced in our intellectual and cultural history – the point of transiting from one model of thinking, the linear one, to another one – the network one (Soldatova et al., 2013).

Among the students, this phenomenon is brightly manifested during learning and developing of their professional competencies, the information one being one of them. In the "push-button culture" world, the phenomenon of "mosaic thinking" has both positive and negative impact on the process of students' information competency development.

It should be said when considering the positive aspects of the phenomenon of "mosaic thinking" influencing the students' information competency development that it protects from redundancy of information, it develops multitasking and the ability to navigate through the information and communication technologies in a quality way, it also increases the speed of response to the current events.

The phenomenon of multitasking is characteristic for the present-day youth as representatives of digital generation. The efficiency of multitasking depends on the speed at which a certain part of the cerebral cortex processes the information, which enables one to plan and fulfill quite a lot of tasks and assignments simultaneously.

Outlining the negative impact of the "mosaic thinking" phenomenon has on the individual's information competency development process, it should be mentioned it is associated with shaping a flow of "chaotic messages" in an individual and not with narrating coherent ideas. Another type of memorizing, memory, other mechanisms of retaining the information are formed in the individuals. Memory becomes not only "superficial" but also "brief" (hence the "mosaic thinking") (Soldatova et al., 2013). Another negative aspect of the phenomenon of "mosaic thinking" is the possibility for a person to opt for the "netoholic's path" (Korneeva, 2006) and "hang" between the reality and the virtuality, which results in the person's losing the sense of reality.

The phenomenon under study produces a negative impact on shaping of the ability for analyzing the incoming information, which leads to losing the meanings in shaping the educational content; it generates the process of using manipulative technologies in the network interaction.

An individual's readiness for network interaction, skills of working with information, an ability to generate and support online-content as an independent and active subject, an ability to perform high-quality navigation through the information and communication technologies are the constituents of the individual's Internet activity and information competency (Voiskounsky, 2016).

Information competency is a part of one's information culture, and so in the process of developing an individual, it is on information culture that the attention has to be focused on and not on "push-button culture". According to Shulika, Tabachuk, and Kazinets (2017), when mastering information culture, a person acts not as a common user having the "window-based" knowledge but as a subject of information interaction that is capable of changing oneself and the environment. Self-change and self-development of an individual's information competency is associated with manifesting Internet activity and subjective well-being. Internet activity of an individual forms the information field, with subjective well-being coming both to the internal and to the external

plane of the activity (Tabachuk, 2016). With regard to this, in developing the students' information competency and in their Internet activity manifesting, attention has to be paid not to cultivating the "mosaic thinking" but the subjective and motivational constituents of the personality.

Following Polichka and Kislyakova (2017), the authors speak about the necessity of transforming the content of education and singling out the pedagogical, information and motivational potential of forming the content of disciplines in such a way as for them to contribute to an individual's information competency development but not oriented to shaping the "mosaic thinking".

The pedagogical potential of forming the content of disciplines consists in accumulating personal resources (patterns of behavior, knowledge, attitudes, relations making up the shapes of translation of subject experience).

The information potential includes the diversity of knowledge an individual has about one's own opportunities of understanding the meaning and essence of information, information processes, fundamentals of computer science, the place and role of information technologies in learning and in the professional activity.

The motivational potential details an individual's attitude to the development of information competency, the individual's having a need of developing this competency independently, as well as the individual's motivation for high-quality fruitful working with information (Tabachuk, 2017c).

Thus, both positive and negative impact of the phenomenon of "mosaic thinking" on students' information competency development processes. The phenomenon of "mosaic thinking" is the reality; due to this, it is essential to support and develop the positive aspects an individual bears and to minimize the negative impact by identifying and employing the pedagogical, information and motivational potential of forming the content of disciplines.

Manipulations and manipulative technologies. According to Cheremoshkina (2010, on the one hand, the Internet broadens the opportunities of getting new knowledge. On the other hand, the nature of obtaining the new knowledge is different, and the information is structured, "prefabricated" for perception and use. A person learning the world via the Internet turns into a person consuming the information which has been perceived, processed and drawn up by someone else. The earlier the process of being involved into using the Web takes place, to the higher extent the person learns to absorb the ready-made evaluations, judgments and conclusions. Thus, using the content drawn up accordingly, the active subject of the Internet resources can be turned into the object of influence, manipulation or control.

Dotsenko (2018) determines manipulation as skillfully inducing another one to achieving (pursuing) the objective that was implicitly set by the manipulator, with a number of attributes identified: the generic feature is the psychological action, the manipulator's attitude to another person as a means for attaining his or her own goals, the pursuit of one-way gain. The particularity of manipulation consists in the manipulator's seeking to conceal his or her intentions. Each trick using which one wants to facilitate communication for oneself is called a manipulation catch in communication.

Being a "manipulations toy", social network services, and cyber environment in general generate the process of using manipulative technologies for its participants. It should be mentioned that the ways of manipulation are quite numerous.

Manipulations in the participants' interaction in cyber environment are associated with attention and memory. Kara-Murza (2018) says the technologies for manipulating the consciousness have an unlimited stock of "stimulating agents" that allow attracting, switching or distracting the attention. For the purposes of manipulations, the methods of attracting and holding the attention are important. Each social network service has a bright clear shell attracting the attention and evoking the interest, so it can be the "stimulating agent".

Dotsenko (2018) considers the "information storm" effect to be one of the ways of manipulation: a storm of useless information is poured on a person, and the truth gets lost in the storm. There are countless network services (social media storages), and the use of them in cyber environment generates the high redundancy of information, to such an extent that any meaning in shaping the educational content is lost.

Perceiving social network services (communities) and cyber environment as a "manipulations toy", one can see they are able to form a stream of "chaotic messages" but they do not present ideas coherently. For manipulating the consciousness when using social services, action on an individual's memory is possible. The researchers, among them Zelinskiy (2018), mention such ways of manipulation as Stierlitz's method (one remembers the beginning and the end of a talk best) and the method of frequent repetition of information [9]. Such methods are often used based on social services and in cyber environment. Knowing the mechanisms by which manipulative technologies function helps one not become the target of manipulation.

The Internet faking. Currently, quite a lot of new words and notions related to the Internet and social networks have been coined. One of them is the word "fake" which is used not only in the Internet but in the real life too. The Internet fakes are a widespread element of the Internet slang. The Internet fakes are deceit, hoax, false (made-up)

information. They affect both the development of an individual's information competency and the quality of education (Tabachuka, 2018a, 2018b).

In educational activity, a person may have different motives for creating fakes, which has both a positive and a negative impact on the development of the person's information competency and on the quality of education as a whole.

Among one's motives of the Internet faking, let it be singled out gaining the popularity in cyber environment, creating a certain image, self-assertion and self-presentation, mental comfort (mood of the subject), and social self-fulfillment.

As for the negative side of one's Internet faking, it generates depersonalization as a wish to escape recognition in the web, a mental conflict that is characterized by a condition of frustration and indecisiveness resulting from an individual's inability to act because of the fear that adverse consequences will be enhanced.

Such aspect of managing the quality of education as managing the Internet fakes and the Internet risks in educational activity deserves special attention.

As the Internet hoaxes get propagated, the Internet risks emerge in educational activity that affect the quality of education.

The following situations can be referred to the Internet-risk ones in educational activity: the Internet faking, manifestation of the mosaic thinking phenomenon, using the illegal and malicious information in the web, cyber-bullying as threats via digital communication, craving for the virtual communication, compulsive web-surfing (never-ending browsing of the worldwide web, searching for information and so on).

Varchenko (2013) when characterizing the risks of educational activity points out that the objective of risks management is setting the limits (criteria) of a permissible risk and identifying the mechanisms of keeping the situation within these limits.

With regard to this, in management of the quality of education, the Internet risks have to be kept to the minimum. These efforts are aimed at developing in individuals during the educational process the constituent of information competency – the ability to use the Internet in a safe and clear-eyed manner – on which Shulika and Tabachuk (2018a, 2018b), and Kazinets (2017) place special emphasis.

As the Internet hoaxes emerge, one's responsibility for the result of learning activity and the need of thinking critically have to go up.

In order to improve the quality of education, it is important to emphasize transition from the illusion of activity to its real manifestation in actions in developing the students' information competency.

The illusion of activity as a particularity of online communication identified by Soldatova et al. (2013) is the illusion of an individual's saturated intellectual and communicative life against the background of spending a long time online. They note that criteria of activity of social life have to be changed, the criteria becoming the passive online communication forms as of nowadays: monitoring any changes of information on a page, commenting on the information received, spreading the Internet hoaxes and so on.

Internet activity as a constituent of the society's digital culture has to be aimed at shaping a conscious need of developing one's information competency; at shaping the students' readiness for not only mastering new information technologies independently, evaluating their opportunities and risks, but also for being prepared to perceive the accelerating pace of change of this society and its transboundariness.

According to Soldatova et al. (2013) transboundariness being a feature of the Internet allows blurring out the borders and communicate regardless of the language, culture, or social status. It is transboundariness which on the one hand is a factor for gaining popularity in cyber environment that contributes to the development of mental conflicts as a negative aspect of influence of the Internet and the Internet faking affecting the quality of education, on the other hand.

Therefore, in developing one's information competency, in order to keep the Internet risks and the Internet faking to the minimum, it is necessary to turn to creating the potentials for one to manifest one's responsibility for the obtained results of learning efforts, one's ability to use the Internet in a safe and clear-eyed manner, to practice the appropriate Internet activity which complements one's life activity but does not make up its basis.

"Reputation power-leveling". This term was described by the Russian psychologist Voiskounsky (2016). He gave it the following meaning: "reputation power-leveling" is embellishment of one's own image, improvement of reputation. Embellishment is due to a low self-esteem development level. In cyber environment, one gets about by self-presentation – constructing one's image by means of texts, images and audio files (Voiskounsky, 2016). Numerous ways for constructing a desirable image are invented and extensively used in cyber environment, which affects the overall development of an individual and the individual's comprehension of one's own information competency development level based on self-evaluation.

Thus, it should be noted that the borderline between Internet activity and its transition to Internet addiction is difficult to determine but the knowledge of their transformation mechanisms serves as a warning for an individual about the destructive impact cyber environment has on the personality. If one is aware of these mechanisms and uses pedagogical means for facilitating the independent personal development of one's information competency that will allow practicing Internet activity without running into Internet addiction, one can work out rules of behavior in cyber environment.

Pedagogical Means for Helping One Develop One's Information Competency Independently That Will Enable One to Manifest Internet Activity in Real Effort without Having To Deal With the Problem of Internet Addiction in Real Life

For singling out the pedagogical means that would help one's information competency independently and enable one to practice Internet activity without running into Internet addiction, it should be emphasized that all opportunities offered by the Internet for learning and self-education can only be used in combination with the efforts to minimize the above Internet risks. In developing an individual's information competency, it is essential to pay attention to Internet activity manifestations and to foresee the Internet risks. For this purpose, the following professional competencies in the educational process have to be developed: higher independence in an individual and responsibility for the result of activity; shaping the conscious need in building one's own information competency level as a basis of sound Internet activity supplementing the human life activity; shaping the individual's readiness for not only mastering new information technologies independently, evaluate their capacities and risks but also for perceiving the accelerating pace of change in the digital society; developing the self-judgment as expending the field for achievement of academic results; teaching students with their "individual learning styles" borne in mind within the competency-based approach. As noted by Selverova (2010), the individual learning style is a combination of characteristic cognitive factors generated under the influence of an existing cognitive style; it characterizes one's response actions to a certain learning situation and affects the choice of the relevant learning technologies, thus enhancing the efficiency of mastering the professional competencies.

An individual's Internet activity and the Internet risks have both a positive and negative impact on developing the students' information competency and on education as a whole. The authors agree with Soldatova et al. (2013), that the following range of topics have to be incorporated into learning modules of the educational process: "On personal security in the Internet", "Netiquette", "Ethics of online communication", "Information security of online work technologies". These topics ensure the development of an "individual learning style" in working in the Internet and help one realize the Internet risks, practice Internet activity in real efforts without having to solve the Internet addiction problem in real life.

CONCLUSION

In order to word the conclusions on the theoretical research conducted, let it be borne in mind that the Internet has transformed not only the activity of almost each person, but the modern culture as well. A significant public interest focused on it is evident, and so is the repeatedly voiced (e.g. by teachers, psychologists, physicians) need of studying the phenomena of an individual's Internet activity and Internet addiction.

The phenomena of Internet activity and Internet addiction are integrated social and psychological phenomena the development of which is conditioned by a number of social and personal nature factors, as it is noted in the works of the Russian and foreign scientists in this range of problems.

The authors understand Internet activity as a part of daily culture for a person belonging to digital society. As a characteristic of an individual, Internet activity is associated with shaping oneself as an active subject within the virtual space, with seeking the spotlight as a condition of relative independence and autonomy, with the extent of self-presentation, and with easiness of making interpersonal contacts. Meanwhile, excessive Internet activity triggers such phenomena as conformity, stereotyping processes, depersonalization, a wish to manipulate others, excessive manifestation of publicity, and aloofness from the real world (escapism). One manifests a certain level of development of one's information competency in one's Internet activity. Excessive Internet activity practiced by an individual triggers the mechanisms of its transforming into Internet addiction.

Internet addiction is the complicated, studied and contemporary medical, social and psychological phenomenon. It is considered by the authors as acquired behavior based on intensity of the wish to remain online continuously that influences the development of an individual's information competency within the context of changing its role in the real and virtual life.

The phenomenon of Internet addiction is viewed by the Russian and foreign scientists from various standpoints and approaches: the nosological one; the social and psychological one; and the dialectical approach.

Analyzing the Internet risks of transition of Internet activity to Internet addiction in the process of development of an individual's information competency has shown they are subdivided into various kinds: content-related, communication, consumer and technical ones, each of them having an important part to play in Internet activity manifestation.

In the research, the authors have singled out the mechanisms of transformation of Internet activity into Internet addiction in the process of development of an individual's information competency. These are "mosaic thinking", "push-button culture", manipulations and manipulative technologies, the Internet faking, "reputation power-leveling", social frustration, escapism, mobility, online threats, and coping behavior.

It is difficult to draw a borderline between Internet activity and its transition to Internet addiction but knowing the mechanisms along which they transform warns one against the destructive impact of cyber environment on the personality.

In conclusion, some words on further research areas considered by the authors to be promising will be said. To these, one can refer comprehending the role of digital divide and its impact on an individual's manifestation of Internet activity and development of information competency; an individual's information competency within cyberspace; Internet activity and creative activity of a subject of digital society; the problem of loneliness as an Internet addiction development factor; manipulative technologies in shaping Internet addiction. These lines of research have to be continued.

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