Cybernetic Welness of the Youth: Psychological Aspect

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ABSTRACT

The ever more growing relevance of the issue under evaluation is explained by the wide expansion of digital technology that leads to the necessity to ensure cybernetic wellness of the population, especially the young. The goal of this article is to detect the psychological peculiarities of the Internet dependence of the youth. The leading approach to this issue is the empirical one (psychological evaluation); it allows detection of differences in socialization levels depending on severity of the Internet dependence among the students and the connection between the level of the Internet dependence and socialization for the young. The article analyzes the severity of the modern youth's Internet dependence, describes the main criteria of the Internet addictions, forms of appearance and motives for development of addictive behavior among the young, stages of Internet addictions. This article may be used by the psychologists that perform psychological follow-up within the framework of psychocorrective, training and consulting jobs with students and the youth suffering of or damaged by Internet dependence, or fighting the consequences of Internet-addiction-based behavior. The article may also interest other specialists working with the young (teachers, social workers).

Introduction

Nowadays we can definitely claim that we are increasingly more often faced with the conflicting digital reality, which on the one hand enforces, and on the other – endangers the viability of the members of our society. Our world cannot be imagined without modern digital technologies – computers, cellphones, smartphones, photo, video and Web cameras, digital TV. They became a part of the everyday life – school, work, leisure. In particular, the researchers explain the necessity to use ICT in pre-school (Guryev, 2012; Gabdulislamova, 1999; Gorwitz & Pozdnjak, 1997; Zvorygina, 1990; Novoselova & Petky, 1997; Panachev, 2016; Svirin et al., 2016; Kurmanaev, 2016; Akhmetzyanova, 2016 a,b; Gromova & Alimbekov, 2015; Sadovaya & Simonova, 2016) and school

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education (Grebenkov & Kornev, 2003; Bosova, 2007). The special attention is paid to remote educational environment for disabled students (Suvorova, 2014; Burenina & Senkina, 2014; Beloborodova, Pihtovnikov & Hanipova, 2014; Fargiyeva, Malsagov & Goygova, 2016; Demakova, Valeeva & Shipova, 2016). Studying by the ICT means is also justified for professional education (Robert, 2001; Robert, 2007; Lomovtseva, Chubarkova & Karasik, 2013; Boronenko & Fedotova, 2015; 2016; Orazalina et al., 2016; Evtyugina, Simonova & Fedorenko, 2016; Knyazeva et al., 2016; Minzhanov & Ertysbaeva, 2016; Sadovaya & Korchagina, 2016). This wide expansion of digital technology requires provision of cybernetic wellness of the population ("cyber wellness"). Under these circumstances, the children and the youth are more compromised by the conflicting digital reality, since they adopt to new technology faster and lack in self-control and self-management. Digital dependence presents itself in the inability to control one's addiction, aggression, sadness, fear to be separated with one's smartphone, tablet, loss of effectiveness in work and studies, constant urge to check one's phone.

The phenomenon of the digital dependence did not yet take its shape in the Russian science, it is not widely studied, although the objective digital reality became an important source of conflict and actively continues to conquer its positions in the minds of the modern people. First of all, it is due to the fact that the increasing amount of users connects to the world Internet Web every day. The problem of pathological Internet use became pending because of the increasing computerization and "internetization" of the Russian society. We are talking about a so-called "Internet dependence" and about the spheres of life it affects, socialization process in particular.

The above-mentioned tendencies cause the increased number of different forms of addictive behavior.

Addictive behavior is recurrent, compulsive, not clearly and not rationally motivated, showing uncontrollable actions or deeds aimed to achieve subjective physical and psychological pleasure deriving either from psychoactive substances (PS) or from different actions that represent the addiction.

The types (forms) of addiction are: chemical – alcoholism, drug abuse; and non-chemical – gambling, adrenalin addiction, sexual addiction, workaholism etc. Recently, the Internet and computer addictions are becoming widespread.

Addictive behavior is one of the types of deviant behavior that is characterized by a person's wish to escape from the reality by means of artificial changes in his/her psychological state using some substances or by means of constant fixation of one's attention on particular types of actions in order to develop and maintain intensive emotions (Mendelevich, 2007).

The articles on our topic usually distinguish between computer and Internet addictions. In the real world though, those two forms of addiction are closely connected.

Internet cannot be used without technological devices (computer, tablet, smartphone etc.), and a device cannot be used to its full capacity without Internet. That is exactly why the researcher of psychology of addictions A.V. Smirnov (2014) suggests looking at computer and Internet addictions as a whole single Internet-and-computer addiction (the "Internet-addiction", to put it short). This assumption allows for a definition of this type of addictive behavior:

addiction related to human-machine interaction characterized by gaining of pleasure, attraction, increased tolerance, loss of control, recurrence, occurrence of withdrawal effect, secrecy and conflicts of different nature with a social group (Griffiths, 2008).

Informatization and computerization of all modern life spheres puts forward a new requirement to a person – he/she must resist the psychological and emotional effect of the virtual world, must be capable of preserving his/her individuality and not to lose the skill of effective communication with the real world people. Besides, currently Internet communication and Internet as a whole are the means to establish and maintain new inter-personal contacts.

Materials and methods

Research methods

The following methods were used in the research: theoretical (analysis; synthesis; concretion; generalization); diagnostics (testing); quantity analysis of empirical data (Student's t-test, Pearson's r).

Experimental venue of the research

The experimental venue of the research is the Russian State Vocational Pedagogical University and the Sverdlovsk Regional Pedagogical College.

Experimental venue of the research

The issue was studied in two stages:

− the first milestone consisted in theoretical analysis of scientific literature on the topic, concretion of the phenomena "professional transspective" and "conflicting realities", determination of the goal and methods, drawing-up of a plan for experimental research;

− the second milestone consisted in experimental work; analysis, generalization and systematization of its results.

Results

The goal of the research appeared as the study of Internet addiction of the young people (students).

Hypotheses of the research:

1. There are significant differences in the level of socialization depending on the severity of the Internet addiction among students.

2. The severity of Internet addiction is closely connected with the level of socialization among students.

The following methods were used to gain empiric data:

1. Internet addiction test by K. Young adapted by V.A. Loskutova (2004).

2. Multi-level personality questionnaire "Adaptability" by A.G. Maklakov (2001) – scale of "moral normalness" – for evaluation of socialization parameters.

3. Method of Subjective evaluation of interpersonal relationships by S. V. Dukhnovsky (2010) – scales for "proneness to conflict in relationships", "aggression in relationships" – for evaluation of socialization parameters.

In order to confirm or disproof the hypothesis 1, a comparison study was held using the Student's t-test for two independent selections (empiric distribution had no significant deviation from the normal one) (Tables 1, 2, 3, 4, 5).

Table 1. Results of the comparison study for the severity of Internet addiction with the grouping variable "place of studying" (no significant differences discovered)

Internet addiction		Levene's test for equality of variances		t-test for equality of means						
		F	Value	t	St. sv	p	Mean difference	Standard error of difference	95% confidential interval of the mean difference	
									Lower bound	Upper bound
Internet addiction	Equality of variances is assumed	1,200	,283	,251	28	,804	1,778	7,080	-12,725	16,280
	Equality of variances is not assumed			,815			1,778	7,497	-13,907	17,463

Table 2. Results of the comparison study for the degree of moral normalness with the grouping variable "place of studying" (no significant differences discovered)

		Levene's test for equality of variances		t-test for equality of means						
		F	Value	t	St.sv	p	Mean difference	Standard error of difference	95% confidential interval of the mean difference	
									Lower bound	Upper bound
Moral normal ness	Equality of variances is assumed	1,251	,273	-1,042	28	,306	-1,111	1,066	-3,295	1,073
	Equality of variances is not assumed			-1,092	26,986	,285	-1,111	1,018	-3,200	,977

Table 3. Results of the comparison study for the severity of proneness to conflict in relationships with the grouping variable "place of studying" (no significant differences discovered)

	Levene's test for equality of	t-test for equality of means

variances

		F	Value	t	St.sv	p	Mean difference	Standard error of difference	95% confidential interval of the mean difference	
									Lower bound	Upper bound
Proneness to conflict in relationships	Equality of variances is assumed	,028	,868	-1,102	28	,280	-,750	,681	-2,144	,644
	Equality of variances is not assumed			-1,111	24,399	,277	-,750	,675	-2,142	,642

Table 4. Results of the comparison study for the severity of aggression in relationships with the grouping variable "place of studying" (no significant differences discovered)

		Levene's test for equality of variances		t-test for equality of means						
		F	Value	t	St.sv	p	Mean difference	Standard error of difference	95% confidential interval of the mean difference	
									Lower bound	Upper bound
Aggression in relationships	Equality of variances is assumed	,180	,675	-,045	28	,965	-,028	,619	-1,297	1,241
	Equality of variances is not assumed			-,045	24,399	,964	-,028	,614	-1,295	1,239

Table 5. Results of the comparison study for the degree of moral normalness with the grouping variable "Internet addiction" (1st and 2nd levels)

Levene's test for equality of variances	t-test for equality of means

		F	Value	t	St.s v	p	Mean difference	Standard error of difference	95% confidential interval of the mean difference	
									Lower bound	Upper bound
Moral normalness	Equality of variances is assumed	,555	,463	2,251	25	,033	1,553	,690	,132	2,973
	Equality of variances is not assumed			1,935	9,951	,082	1,553	,802	-,236	3,342

Results of the comparison study for the level of socialization with the grouping variable "Internet addiction" (low and excessive levels) have shown that there are statistically significant differences only in the levels of socialization degree factor – moral normalness (t=2,251, p=0,033). This means that the degree of moral normalness depends on Internet addiction. I.e., the lower the level of Internet addiction, the higher the one of the moral normalness. If a person is able to control his or herself and browse Internet freely, this person would more really valuate his/her role in the group, tend to follow common behavioral standards. This may be caused by the person's ability to freely build social connections and relationships, to adapt cultural and historical experience, values ad knowledge. Such a person does not tend to escape from the objective reality by creating a new one – the virtual one. So, the most of his/her time such person dedicates to being a part of community without appealing to anonymity of communication etc.

In order to confirm or disproof the hypothesis 2, a correlation analysis has been held using the Pearson's correlation coefficient (Table 6).

Table 6. Results of correlation analysis of the Internet addiction severity and level of moral normalness

		Internet addiction
Moral normalness	r	-,383
	p	,037

The gained data evidence the correlation between the severity of Internet addiction and the degree of moral normalness (r= -0,383 at p≤0,05). This means that the higher the value of one phenomenon, the lower the level of the other one. I.e. the more a person is guided by common regulations, rules, the less severe would be his/her Internet addiction, and vice versa. However, if a person is unable to adequately evaluate his/her place and role in a group, is not eager to follow commonly accepted rules of conduct, such a person would probably tend to escape from the objective reality and create a new one, find "imaginary friends".

Thus, the amount of real friends is likely to decrease, the situations of forced or willing solitude occur more often. Virtual conversation partners become confidants for expression of intimate feelings and appear to be involved in discussions about moral norms and sanctions.

The research allows for a conclusion that the spreading of computer technology, and Internet in particular, and rising amount of Internet users increase the possibility of people stopping to accept norms, rules and traditions specific to their community. Consequently, they are at risk of addictive and asocial behavior.

Thus, the suggestion made in the aforementioned hypotheses that there are significant differences in the level of socialization depending on the severity of the Internet addiction among students is partially confirmed. The hypothesis that the severity of Internet addiction is closely connected with the level of socialization among students is also partially confirmed.

Discussions

Currently, the Internet dependence is explained as an obsessive or compulsive desire to enter Internet while being off-line and inability to exit Internet while being on-line. Synonyms are "Internet addiction", "virtual addiction", "cyber addiction", "netaholism" (Bolbot & Yurieva, 2006). In its turn, the addictive behavior (lat. addictus – servility) – special type of destructive behavior expressed in tendency to escape from reality by means of changing of one's psychical state. This urge is becoming dominant at a person's mind, his/her behavior is guided by the search of means that help escape from reality. As a result, a person exists in virtual, surreal world. He/she not only doesn't solve his/her problems, but also stops developing – up to degradation.

The study of the computer addiction phenomenon was started by the foreign psychologists in the end of the 80s. The first to face it were psychotherapists and the companies that use Internet and bear losses when their employees become obsessed with the Web. They experience fatigue, the immune system weakens leading to increased risk of illnesses. Besides, sedentary lifestyle may cause problems with spine; and incorrect lighting – different eye diseases.

The research in this field becomes more active in Russian psychiatry and psychology in the beginning of the 90s. And every year it becomes more intensive, parallel to the increasing amount of computer users.

Expansion of Internet addiction is related to the fact that there is a possibility to create new personal identities in the Web, unique ways of introduction, fulfill ideas and/or fantasies impossible in the everyday life. Usually those are role-plays in chats, different identities and social roles. Internet makes anonymous social interactions possible. Especially when it feels secure to perform them, including using of e-mail, ICQ etc.

By using Internet, a person may get involved in various virtual social links, and thus be able to acquire this or that social status (search for self-affirmation). This factor is highly important for those who could not acquire the desired position in real life society.

Unfortunately, many people that constantly use the Web and computer technology walk over this thin line that separates norm from pathology called "Internet addiction". It is mostly relevant to the young people, and in the future

will become characteristic of earlier ages. Thus, Internet addiction is a result of the escape from conflicting reality, avoiding solving its issues, which damages socialization of a person.

It has been noted that the dependence on Internet and digital gadgets is a psychical disorder; and the tendency to depend on social media and video downloading is growing (Dovbnya, 2014).

Thus, the virtual space on the one hand generates conflicting realities, and on the other hand is the means to escape from the irritating influence of conflict situations. The fact that a young person develops Internet addiction as a pathological phenomenon reflects the destructive ways of overcoming and solving of socially induced conflicting realities.

A.V. Smirnov (2014) gives main criteria of Internet addictions in his research:

−exaggerated personal relevance and importance of computer work or staying on-line in Internet. Successful work with a computer or in Internet are considered significant personal achievements;

−computer work or staying on-line in Internet bring pleasure; that is why the most of the time free from sleeping is spent in search of computer work and finding time for it;

−appearance of impatience and aggressiveness (physical aggression) when it is impossible to work with a digital device, computer. On the contrary, whilst working at a computer, the mood dramatically rises, a person experiences euphoria and wellness. Denial of other sources of pleasure other than a digital device;

−gradual increasing of frequency, duration and scope of interaction with a machine in order to get the desired effect due to increased tolerance. Loss of control over duration and intensity of interaction with a digital device;

−disturbances of sleep, eating, communication with close relatives, friends;

−stable attempts to hide episodes of interaction with computer;

−drug, alcohol abuse as a coping-strategy for addiction.

Special attention should be paid to the main forms of Internet addiction with the young:

−participation in virtual computer games on-line and off-line;

−participation in social networks. Compulsive browsing through information and checking of e-mail from friends from the Web of updating of one's personal information;

−constant search for communication and new acquaintances in social networks, as well as constant video-chatting;

−virtual sex-search and watching of pornography after or instead of coitus, participation in virtual pornographic video-sessions. Using of Internet to search or exchange sexual information with other addicts in chats. Constant visiting of sexual dating sites. Performing in sexual shows on live-Internet in real time or watching such shows etc.;

−deliberate generation of rumors, disinformation and falsification in Internet;

−aggressive discussions on events with high public interest and devaluation of official information on the matter in Internet.

The researchers point out the following main features of addictive behavior with the young people:

− possibility of multiple anonymous, virtual social connections that may be suddenly interrupted, at any moment and with no reason;

− virtual form of realization of desires without any particular effort from the addict's part;

− search for "friends" that comply with any requirements;

− possibility to change one's role and get new identity in the Web;

− relieving of responsibility, replacement of reality with a game;

− creation of conditions for constructing of a new reality (Dmitrieva & Korolenko, 2001).

Let us review the stages of internet addiction development:

− Starting to like using computer;

− An addict starts preferring to use computer to perform work tasks that were previously performed without Internet or a computer;

− An addict reaches almost professional level of skill in using of computer or Internet. This is considered a significant personal achievement;

− Computer work or Internet takes all of the addict's free time. He/she prefers this pastime to any other;

− Addictive behavior continues up to appearance of severe somatic damages to the body, which make it impossible to proceed with the addictive pastime.

The following negative consequences of internet addictions may be pointed out:

− disengagement of the addict from the society, real relationships with peers, friends;

− negligence of one's duties, responsibility for one's behavior;

− proneness to conflicts with the others;

− loss of interest in sexual relations and opposite sex;

− development of severe egocentrism and blunted affect;

− financial costs;

− decreased interest towards studies and work;

− development of hostility and aggression;

− loss of social and professional identity, social maladjustment.

Summarizing the above, we may state that:

− the main reasons for internet addition are insufficient real life communication, dissatisfaction in studies and work;

− possibility to realize a person's need in self-affirmation and self-realization in the virtual world;

− withdrawal of psychological anxiety, frustration, negative emotions by means of playing other social roles;

− development of cyberspace determines changes in a person's consciousness and development of a virtual reality that unites all existing means of telecommunication and information networks;

−cyberspace is the result of the technological progress created by people; it is capable of self-organization and may exist independently; it represents a real threat to people's wellness;

there is an actual need for digital safety and cyber wellness centers for the young people and the population as a whole.

Conclusion

It was determined that there are statistically important differences in the degrees of socialization – moral normalness (t=2,251, p=0,033), which evidences the dependence of the degree of moral normalness on the severity of internet addiction – the lower the level of internet addiction, the higher the level of moral normalness (the young people with low levels of internet addiction evaluate their position in the group more adequately, they tend to follow the common ways of conduct). We have also noticed a reverse correlation between the severity of internet addiction and the degree of moral normalness (r=-0,383 at p≤0,05): the more a person is guided by the common standards, rules, the less severe is his/her internet dependence, and vice versa.

The research concludes that the development of computer technology, expansion of Internet and increasing amount of Internet users in particular, increases the possibility that the people would stop accepting norms, standards and traditions characteristic for their social groups. Consequently, it may lead to increased possibility of asocial behavior towards the others.

This article describes the main criteria of Internet addiction, the forms it takes and the motives for development of addictive behavior among the youth, stages of Internet addiction development. It was pointed out that there is an actual need for digital safety and cyber wellness centers for the young people and the population as a whole.

This article may appear useful to the psychologists that perform psychological follow-up within the framework of psychocorrective, training and consulting jobs with students and the youth suffering of or damaged by Internet dependence, or fighting the consequences of Internet-addiction-based behavior. The article may also interest other specialists working with the young (teachers, social workers).

The research has risen new questions and issues that need to be solved. The study must continue to research the psychological peculiarities of cyber wellness of the young people in two directions: widening of the range of research methods (testing, questioning, experiments) and increasing of sampled population.

Disclosure statement

No potential conflict of interest was reported by the authors.

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