THE PHENOMENON OF INTERNET ADDICTIVE BEHAVIOUR AMONG SLOVAK YOUTH

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Abstract

The Internet is a medium of almost limitless space and options bringing both a number of positive aspects, such as information retrieval, socialization, entertainment, etc. as well as negative ones. The paper focuses on problematic issues concerning the Internet such as e.g. addictive use of the Internet as one of the possible risks and threats. In the introduction, the authors deal with the addictive behaviour in general, and point out at differences between the substance and non-substance addictions. The pivotal point of the paper lies in defining issues dealing with the Internet addictions aimed primarily at setting the standards for diagnostic criteria and uncovering possibilities of becoming an Internet addict. The authors also focus on factors emphasising its attractiveness that may ultimately lead to excessive use of computers or the Internet and thus, build a real addiction. The emphasis is put on dangers of addictive behaviour in a virtual world and the writers offer a number of various treatment alternatives. It shows the importance of prevention from the parents' as well as educational institutions' side, for example through the inclusion of these issues into the media education curriculum or by offering young people various leisure alternatives.

Keywords: non-substance addictions, users, factors, attraction, cyberspace

1. Introduction

For the last two decades global society has undergone a significant and dramatic change directly linked to the continuous development and advance in new information and communication technologies. The change has resulted in deepening and strengthening connections and dependencies of the population on these technologies and on new digital media. Nowadays, digital media, especially the Internet, have become an integral part of our lives. Their existence and mutual interconnections are, in particular, conditional on the existence of the virtual space – the cyberspace. As a term cyber space is defined as a non-identical with the real physical three-dimensional space, i.e. a space that only simulates a real space.

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Cyberspace is built by means of communication technologies, among which the Internet plays a dominant role. In case, a significant part of our life, such as our thoughts, ideas or communication, is projected into the cyberspace, it can be said, it becomes an extension of our life [1]. The Internet and the cyberspace offer unlimited dimensions of new possibilities. Entering of new Information and Communication Technologies (ICT) into all levels of our life has changed our society into an information society. All the new possibilities of computerization of society and almost limitless boundaries of existence in cyberspace, however, may cause the emergence of socio-pathological phenomena among individuals. The central theme of the paper - the Internet addiction - is one of such phenomena.

2. Types of addictions

2.1. Defining addictions and their classifications

The World Health Organization (WHO) defines addiction as a mental and sometimes physical state of being that results from the interactions between living organisms and a drug. The state of addiction is characterized by changes in behaviour and other reactions, including an urge to take drug permanently or repetitively for its effects on the psyche as well as to avoid inconveniences caused by the drug absence in the body [2].

According to the international classification of diseases, the addiction syndrome can be defined as a group of physiological, cognitive and behavioural phenomena that is preferred by an individual more than the use of a certain substance or class of substances or other individual behaviours and activities that they valued in the past. In parallel with an addiction also withdrawal symptoms as regular accompanying phenomena may occur. However, after the repetitive consumption of the substance they are gradually diminished, the body's intolerance to this substance is gradually increased.

According to J. Liba [3], addiction is a set of signs and symptoms, which arise as a consequence of a particular stimulus on the body or the psyche of an individual, but mainly which arise especially during the absence of these stimuli. There are many forms and types of pathological addictions. In terms of impact and negative effects on man and society, gambling, computer games addiction and cult addiction (especially dependency on some religious sects) are considered to be the most serious ones.

In general, we can say that addiction is a dynamic process, in which there comes to an accumulation of psychological, biological and social impacts. Addiction occurs gradually and may gain a chronic form. The inability to control their own behaviour is, therefore, the most important addiction criterion. The process of developing an addiction is made up of four stages: experimenting, or social use of addictive substances, addictive behaviour or activity; problematic use of substances or activities, which has become a regular activity; stage of addiction and stage of relapse or recovery [4].

Essentially, addiction is a phenomenon conditioned by a certain situation or circumstances that a particular person needs, or believes that s/he needs, to exist. To some extent, addiction belongs to common phenomena as almost all organisms, in order to survive, are dependent on water, food or oxygen intake. Pathological addiction, however, is a significant negative phenomenon since it is an uncontrollable urge to act in a certain way repetitively, regardless of the consequences. A leading Czech addictionologist K. Nešpor [5], defines *craving* - that is considered to be one of the corner-stones of substance and non-substance addictions as an uncontrollable desire, or urge to repeat certain behaviour. It is mainly the aspect of craving that enables us to notice any form of addiction for the first time. Craving is a powerful and motivational factor by both forms of addictions – substance and non-substance ones.

Non-substance forms of addiction are part of the modern forms of addiction. Anything that causes uncontrolled passion or mania that knowingly and unknowingly destroys and/or damages a person can be considered to be a non-substance form of addiction. The so-called new or modern addictions of non-substance nature are often directly linked to information and communication technologies. Besides the above mentioned dependency on new technologies, some experts refer to specific forms of dependencies, such as TV-, programme- , soft operas-dependencies. According to Ľ. Sejčová [6], the non-substance addictions include the Internet addiction, gambling, pathological shopping (oniomania/CBD), workoholism, addiction to sects and cults, to diets and starvation (anorexia nervosa, dieting), food addiction (obesity, bulimia nervosa) and addiction related to the cult of body (tanorexia, ortorexia, bigorexia)

2.2. Internet addiction

As with many emerging issues, there is no established terminology for denoting this socio-pathological phenomenon. According to P. Vondráčková and J. Vacek [7], the first description of addictive behaviour on the Internet was firstly introduced by American psychologist K. Young in 1996. In some countries (e.g. China, South Korea) problematic use of the Internet is considered to be one of the most serious threats to public health. We are of the same opinion as I. Hupková [8], who defines the Internet addiction as a use of the Internet that brings psychological, social, work and/or school complications into the life of an individual. As stated in this context by S. Fischer and K. Škoda [9], for Internet addictions, in English literature, in general, the abbreviation IAD (Internet Addiction Disorder) is used.

Another term to describe the addiction to the Internet used is pathological computer use (PCU) which refers to any particular issue concerning an uncontrolled use of your computer.

J. Benkovič [J. Benkovič, *Niektoré klady a zápory virtuálneho sveta počítačových hier a internetu*, http://www.nocka.sk/uploads/62/68/6268faf 28878e2190778ef031de0f09f/sp-1-2014-web.pdf] adds to the most common symptoms of PCU, the inability of a user to stop using a computer, a strong need

to spend more and more time on a computer, to neglect their duties (work, personal), family, friends; to lie to family members about the length of time spent on a computer, etc. It is important to mention that the computers themselves do not cause the addiction. However, they may cause a strong desire or an urge to work on a computer and may cause subsequent problems with self-control. The withdrawal state is similar to the classic withdrawal symptoms and it gradually leads to an overall neglecting of work and other obligations and interests. Many studies show that a human being does not becomes dependent on the Internet itself, but rather on particular activities on the Internet, respectively on a specific Web application that can fall into three basic categories: online games, cybersex and pornography, and communication applications such as chats or social networks.

At the beginning, it is necessary to define essential characteristics through which problematic, risky or unhealthy and thus addictive behaviour can be determined. I. Hupková and K. Liberčanová, specify the six core characters according to which any addiction (substance or non- substance) can be defined. They are as follows: a strong desire or urge, craving; trouble in self-control; withdrawal state; the growth of tolerance; a gradual neglecting of other pleasures or interests and hobbies; and continuing in these activities in spite of the obvious damaging consequences [8].

2.2.1. Measuring the Internet addiction

If we talk about the Internet addiction, respective about its problematic use, there are certain specific and diagnostic criteria through which the degree of dependency can be set. According to K. Young, to be able to confirm the pathological Internet addiction each of the following symptoms must be present: preoccupying with the Internet (thinking about previous online activities or about future ones), need to use the Internet in increasingly longer periods of time to reach satisfaction, repeated unsuccessful efforts to control, to interrupt or to stop the use of the Internet, restlessness or irritability when attempting to stop or give up the use of the Internet, and extending of the originally planned time of the Internet connection [10].

The psychologist K. Young, the founder of the *Net-addiction* (the Centre for Online Addiction (1995)) divides the Internet addictive behaviours into five basic categories: dependence on virtual sexuality, virtual relationships, Internet compulsivity, information overload and dependence on PC (mostly, excessive playing of computer games) [11].

As there are many different categories to be identified, a number of tests and methods have been developed to make it possible to determine the degree of dependency. However, each of them uses different methodology and different ways of evaluation and, therefore, we can conclude, that there is no single definition of the Internet addiction acknowledged by the expert community. D. Šmahel [12] defines a number of criteria to be used to diagnose a person as a dependent one and to set a diagnose he uses a 10-item questionnaire.

In some studies an extended 20-items questionnaire, the *Internet Addiction Impairment Index* (IAII or as indicated under the name Internet Addiction Test-IAT) developed by the above mentioned psychologist Kimberly Young, and available on the Dell support website at the Centre for Online Addiction is more often used [K.Young, *Internet Addiction Impairment Index*, http://ww.netaddiction.com./resources/internet addiction test.htm]. In the test, it is possible to reach from 20 to 100 points, while the range from 50 to 79 points can represent occasional or frequent problems caused by the use of the Internet and the resulting score above 80 points indicates serious problems in an individual's life.

When examining the different types of users dependent on the Internet it is possible to rely on the classification by D. Greenfield [D. Greenfield, *Virtual Addiction: Sometimes New Technology Can Create New Problems*, http://virtual-addiction.com/wp-content/pdf/nature_internet_addiction.pdf] who defines the three main groups of addict users as follows:

- The first group - *electronic vagabonds* – are people surfing on the Internet without a specific objective, the act being online itself is perceived as encouraging, they prefer multimedia stimulation, online learning and finding new places and gaining new information.
- The second group of addicts over-exploits services such as chats or emails. Online contacts provide them with a source of social and interpersonal rewards, the virtual world may be replaced by a less satisfactory real life.
- The third group of addicts devotes their time to highly stimulating online activities such as trading, searching for pornography, gambling, shopping or auctions. D. Greenfield also adds that, even in the pre-internet time there were many people who had problems related to these activities. The emergence of the electronic environment and the new digital media increased their opportunities for the implementation of the above mentioned activities also online.

2.2.2. Why is the Internet so appealing?

Reasons and factors leading to the Internet addictive behaviour are also another interesting area of research that was exploited by the Korean Professor I. Song [I. Song, *Internet Gratifications and Internet Addiction: On the Uses and Abuses of New Media,* http://connection.ebscohost.com/c/articles/14259625/internet-gratifications-internet-addiction-uses-abuses-new-media] and his academic team who identified seven aspects affecting satisfaction or enjoyment caused by the Internet use. These factors are: virtual community; search for information; aesthetic experience (e.g. designing of Web sites); financial benefit; entertainment, distraction or relaxation; personal status (e.g. being considered media and digitally competent); and maintaining relationships.

These, 'reward' providing factors may be subsequently divided into*: process and content gratifications.* The process gratifications are achieved through communication or, in general, by surfing on the Internet. Users

employing the Internet to search for specific information gain content rewards. The results of the research, therefore, confirm the hypothesis that there is a relation (correlation) between the Internet addiction and the 'rewards' obtained through the process.

For users these 'rewards' represent the attractive or even addictive specifics we aimed to identify. It is obvious that these include, in particular, the ability to remain anonymous and other related opportunities, such as presenting only selected pieces of information on their person, being someone else, creating other identities or multiplying them, being able to express any opinions without fear of possible negative consequences, or eventually being able to open up emotionally without risking rejection. The interactivity and the availability of a variety of information, most of which are free and updated frequently can be added to the above-mentioned factors. D. Greenfield [http://virtual-addiction.com/wp-content/pdf/nature_internet_addiction.pdf], argues that addictive factors are first of all the combination of accessible stimulating content, easy access, comfortability, low cost, visual stimulation, autonomy and anonymity – it all adds up to a highly psychoactive experience. By psychoactive, he means the fact that the Internet has the ability to change the mood and has a potential impact on our behaviour. According to D. Greenfield, some users perceive and use the Internet in the same way as drugs, just because they want to change their mood.

Another factor, having an addictive impact on a person mainly in the context of digital games, is the feeling of having a control over the virtual world. The addict users are mainly satisfied by the illusory feeling that they can control the processes when playing digital games [K. Chak and L. Leung, *Shyness and Locus of Control as Predictors of Internet Addiction and Internet Use,* http://connection.ebscohost.com/c/articles/14974541/shyness-locus-control-as-predictors-internet-addiction-internet-use].

However, it is important to bear in mind that at the time of smartphones and tablets, the Internet and PC media may not be attractive to the users themselves, but attractive are mainly their various available Internet and PC applications that contribute to their attractiveness. According to an *INstatnE* survey [survey *INstatnE*, http://www.virtualnageneracia.sk/wp-content/uploads/2015/11/Výsledky-výskumu-INstantnE.pdf], carried out by a civic association Ipčko.sk in 2015, the most frequently used applications among the Slovak teenagers are: You tube, Facebook (89%), Messenger (79%) and Instagram (39%).

There are several general models considering the fundamental factors of the attractiveness of the Internet and the electronic environment. Despite the fact that they were developed quite a long time ago (2000), they are still generally valid and comprehensive and therefore, can be applied to the current historical context.

The first of them, the A. Cooper's '*Triple A*' model [A. Cooper, *Sexuality in Cyberspace: Update for the 21st Century,* http://connection.ebscohost.com/c/articles/5323505/sexuality-cyberspace-update-21st-century], is focused on the

consumption of erotic content on the Internet, but may be also applied in a broader electronic environment. According to Cooper, the three main factors supporting the use of the Internet are: Access, Affordability and Anonymity.

The second model, the K. Young's 'ACE model' [K. Young, *Types of internet addiction*, http://netaddiction.com/net-compulsions] includes two different explanations; it distinguishes between the dependence on cybersex and the dependence on digital games, shopping or online auctions that are perceived in a different way.

The ACE model, explaining the cybersex addiction, emphasises firstly, the anonymity (**A**nonymity), secondly, the comfort (**C**onvenience) or ease of searching for sexual content on the Internet and at the same time the security of their home, and thirdly, the factor called **E**scape that draws attention to the fact that surfing the Internet may pose a certain escape from everyday worries, or improvement in a bad mood.

New media and the Internet has become an integral part of personal and social lives of our population. These phenomena are popular mainly among the younger generation and students. The current young generation growing up in a totally digital world, is not forced to gain the new competences and knowledge. They use them automatically and correctly. Moreover, as Hurajová [13] points out, the mastery of such competences increases opportunities on the labour market. In 2015, J. Holdoš [M. Madro and B. Holíková, *Virtuálna generácia. Sme dnes iní ako kedysi*?, http://www.paneurouni.com/files/sk/fpsy/zborniky/virtualna-generacia-sme-dnes-ini-ako-kedysi-zbornik.pdf] operating at the Faculty of Catholic University of Ružomberok, carried out a research on the Internet addiction of young Slovaks. The research sample consisted of 1029 respondents; 89% of them were students from the secondary and higher-education schools, their average age was 20.19 years. The results of the study shows that the average daily duration of the Internet use is 5.17 hours during the working week and 4.77 hours at the weekend.

The rate of the Internet use among young people was an important research datum. The results show that more than 13% of the research participants are medium-dependent and 2% of them suffer from an Internet addiction. These facts are extremely important since they point out at the current negative tendencies in our society and the tendency is growing.

The average result of 2% of morbid addicts is similar to other researches carried out in Germany or the UK. Particularly alarming is the number of 13.6% of medium addict young people, which refers to a group of people who exhibit high dependence and excessive use of the Internet. This is just for people who are not yet addicted, but have already problems with it, and it can get out of their control. Their Internet use may negatively affect their personal and social life, and also their performance at school or work. The test on addiction shows a correlation between dependencies and a specific use of the Internet.
The Internet is most commonly used by respondents to carry out online sex, to connect to social networks and to chat. The established order of addictions can be confirmed by comparison to other foreign studies that show that online sex

is the most dangerous factor for the addiction emergence. Within the research a significant difference between the sexes concerning the Internet addiction was detected. It revealed that men are more at risk of addiction than women.

The civic association IPčko.sk [http://www.virtualnageneracia.sk/wp-content/uploads/2015/11/Výsledky-výskumu-INstantnE.pdf] - an Internet consultancy for the young - conducted in 2015 a similar research into young generation experiences in the cyberspace and their perception of the virtual world. The results of this survey show that up to a third of the respondents acknowledged that it was is difficult for them to control their time spent in the cyberspace. Up to 82% of respondents stated that they could not limit their use of the Internet, even though they would like to. Almost 40% of respondents said that some of the people around them thought that they were dependent on the computer/mobile/Internet and 21% of them stated that their parents (or one of them) were dependent on the computer/phone/Internet.

2.2.3. Treatment and prevention of Internet addiction

The Internet addiction is treated, in general, in the same way as other non-substance addictions. Mostly, is applied the Cognitive-Behavioural Therapy (CBT) in which patients are encouraged to get aware of the problematic behaviour and its triggers, to monitor themselves, and consequently to change their undesirable behaviour. When monitoring oneself, specific instruments, such as keeping a diary of their online activities, are employed. The primary purpose, however, is not a complete abstinence from the Internet and a computer, but finding a reasonable and moderate use of the Internet with the abstinence from problematic applications.

Dr. Young suggests the CBT to be the first choice in the treatment of the Internet addiction. She has created a specific three phase model of treatment, where she combines the classic CBT with the Harm Reduction Therapy (HRT) that is aimed at reduction of injury or damage. The first phase is focused on behavioural change and gradual reduction of the amount of time spent online. The second phase is a cognitive one, and works with the ideas of addict people, and the third phase employs approaches that are specific for the HRT – efforts to recognize and treat the co-existing factors leading to compulsive use of the Internet. The author also describes the research, where the CBT therapy was applied to 114 patients dependent on the Internet and most of patients experienced a significant improvement within the eight therapy meetings and six months after the therapy they were still able to manage the symptoms of addiction [J. Holdoš, *Výchova a vzdelávanie ako nástroj (de)formovania hodnotového systému spoločnosti,* http://dsu.kapitula.sk/html/data/d_zborniky/ vychova_a_vzdelavanie_ako_nastroj_de_formovania_h_s_spolocnosti.pdf].

As the Internet addiction usually occurs together with other underlying psychiatric problems , these must be also identified and treated as treating the addiction alone (and ignoring the depression or other underlying psychiatric

problem) might temporarily resolve one particular addiction, but the patient will often develop problems in another area [14].

In the case of small children treatment, A. Ševčíková [15] advises to use a Family-Systemic Therapy, which is aimed at improving communication among family members. Therefore, mostly, all family members participate in. By applying the Family-Systemic Therapy, the children work on coping with the emotional problems of everyday life and parents develop their ability to listen to their child more attentively while being at the same time able to express their parental authority.

As nowadays the Internet is an inevitable part of our working and personal life, the result of the therapy cannot be a complete abstinence but should make the young people aware of all the problems concerning its long-time use. To achieve this, the emphasis should be primarily put on prevention.

3. Procrastination

Procrastination is a term used in connection with addictions. There are a number of equivalents and explanations to the concept of procrastination, such as: tardiness, delay, tendency to put off tasks and responsibilities, in particular because of the idleness and frivolity [16]. In Psychology, it is defined as illogical, but deliberate delaying of scheduled activities, which often leads to experiencing of negative effects such as anxiety or shame. According to R. Gabrhelík [R. Gabrhelík, *Akademická prokrastinace: Ověření sebeposuzovací škály, prevalence a příčiny prokrastinace,* http://is.muni.cz/th/114738/fss_d/ Proc_disertace_gab.pdf], we may talk about procrastination only in case when a long term retardation between the original intention or decision to start working on a task, and actual beginning of the work appears. Procrastination issues got to the forefront of theoretical research and interest only in the 1960's. This relatively late interest in the issues was mainly due to the fact that in the meantime the procrastinative behaviour was seen mostly as a common sloth [17]. A single and coherent definition of procrastination, generally recognised by all professionals dealing with this issue, has not been yet formulated. We share the same opinion as A. Sliviaková [A. Sliviaková, *Prokrastinace v adolescenci a mladé dospělosti*, http://is.muni.cz/th/64581/ff_d/Disertacni_prace.pdf] who defines procrastination in her universal theory as chronic, illogical, however, voluntary postponing of planned activities while including involvement in other (and originally unintended) activities. This definition, however, as well as a number of others, similar theories, sees the procrastination just as a negative phenomenon. But some authors believe that there exists also a beneficiary procrastination, such as J. Ferrari, who uses the term functional procrastination and argues that it occurs only occasionally when it is better to wait and not to make a hasty decision.

In the past, procrastination was searched as a general phenomenon, whose appearance was not specific. But over time, it has turned out that there is a restricted group of the population, in which it is possible to observe this

phenomenon as a much more intense one. On the basis of this classification, it is, therefore, possible to define two basic types of procrastination: *general and academic procrastination.* According to Gabrhelík [http://is.muni.cz/th/114738/ fss_d/Proc_disertace_gab.pdf] from the statistical point of view, in academic environment procrastination can be defined as a norm, as its prevalence is from 50–70%. However, it is questionable whether it is necessary to examine the procrastination within the framework of the academic circles or it is unnecessary as it could be only common student laziness.

His opinion is supported by the results of the research done by the Civic Association IPčko.sk, called the *INstatnE* [http://www.virtualnageneracia.sk/wp-content/uploads/2015/11/Výsledky-výskumu-INstantnE.pdf] in 2015, which, inter alia, also examined the phenomenon of procrastination among secondary school students. Nearly 30% of the students use the Internet to purposely delay their study which can be clearly seen as procrastination behaviour. Almost half of the teenagers also admit that they connect to the Internet more often if they have something to do – thus the Internet becomes a means of procrastination. A third of the teens ceases to think about their duties at the time, when they are on the Internet, – and thus the Internet not only delays their duties, but also 'deletes' them for a while. Adolescents find in the Internet a simple and easily accessible means of procrastination and avoidance of their obligations. When procrastinating, students often take advantage of the Internet and its possibilities, and so in this way procrastinating can be connected with excessive use of the Internet and computer that may finally lead to creating addiction.

4. Conclusions

To conclude, we consider threats of the Internet addiction to be one of the most serious dangers of our society, even more serious than drug addiction and others, as they may concern literally everyone.

At present, nobody can imagine studying or working without an Internet access or usage of a computer. And thus, the Internet addiction affects all groups of our population. Today, even seniors use computers and even though we have not dealt with this specific group, it is after children and the young, the most endangered group, as they feel alone and the computer may become their 'best friend'.

The debate on whether the Internet addiction should be regarded as a separate psychiatric diagnosis or a manifestation of other mental difficulties has not been concluded. In the last fifth revision of the DSM (Diagnostic and Statistical Manual of Mental Diseases) the Internet addiction is not included. It is, however, evident that this is a serious issue that deserves attention. As the Internet addiction is of a non-substance nature, it happens that the course of treatment is more difficult, and harder than the treatment of substance addictions. While complete abstinence of alcohol, drugs and tobacco is completely satisfactory, with the Internet addiction it would be counterproductive – an individual would be able to get into social and

knowledge isolation. The goal of treatment is not, therefore, a complete lack of use of the Internet, but moderate and rational use.

Since the most risky groups endangered by addictions are mainly children and the young, our aim should be prevention and the effort to get children prepared for the Internet and information technologies use; i.e. to prepare them to be able to take over responsibility for themselves, to be able in a creative as well as critical way perceive, process and select not only audiovisual contents but also all content offered by the cyberspace.

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