

Problematic Internet Use: Old problems with a new twist

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Abstract: *The Internet is an integral part of human society and everyday life of most people, and it may be used for satisfying various human needs. The Internet has changed the way we process information, learn, talk, behave, etc. However, when something is used too much, it always brings some consequences with it, one being Problematic Internet Use, which is an umbrella term that encompasses a wide range of repetitive disabling behaviours, such as Internet video gaming, gambling, cyberpornography addiction, compulsive online shopping, social networking problematic use, and so on. In this paper, different views on Internet use in modern society will be considered, from ideas (over)emphasising its harmful effects on users' health, to ideas ignoring these warnings. We will be discussing the advantages of ICT use, as well as characteristics of the Internet, which may ease a compulsive use or preoccupation with online content and activities. We will particularly focus on classification criteria for specific online behaviours into the category of problematic use or Internet addiction, and finally we will point to some of the negative effects of PIU, as well as types of such Internet-related problems.*

Keywords: *Internet; problematic Internet use; Internet addiction.*

1. INTRODUCTION

According to the Annual Report of the Statistical Office of the Republic of Serbia [1], 76.7% of households own a computer and Internet access, over 92% of citizens use a mobile phone, and around 10% of them have never used the Internet. Therefore, it is not unusual that ICT and the negative effects of its excessive use are typically taken into account when mental health and quality of life is concerned, both in Serbia and worldwide.

The Internet is an integral part of human society and everyday life of most people, an inevitable tool for communication and interaction with other people, a way of spending leisure time, the main source and a means for quick and relatively easy information search [2]. The Internet has changed the way we process information, learn, talk, behave, while social network profiles have even become an extension of identity for some people, creating an overlap between the real and virtual world, which has led social scientists to term the Internet-age generation as *Homo technodigitalicus* [3]. It may be used for satisfying various needs, from affiliation, entertainment, education, to business¹. What is particularly important is that the Internet has integrated the best features of other

mass media, such as multimedia contents, easy access, and above all, interactivity [2].

However, when something is used too much, it always brings some consequences with it. As the Internet is expanding further into different aspects of everyday life, the academic and clinical circles are assigned a task to establish criteria and provide treatment for problems or disorders caused by its excessive, compulsive, and dysfunctional use [5]. The phenomenon, known under different terms, which we will term the Problematic Internet use (PIU) herein, is of special importance. Although PIU affects a minority of individuals who use the Internet, reports have documented a series of unhealthy lifestyles and medical disturbances that are thought to represent the consequences of severe forms of PIU, especially when it comes to youth [3]. Problematic Internet use is often characterised as impaired control over online activity, increased priority given to Internet behaviour over other activities, occurrence of tolerance and withdrawal symptoms, and continuation of Internet use despite the negative consequences on other important areas of life [6]. This umbrella term encompasses "a wide range of repetitive disabling behaviours that include, but are

¹ One of the taxonomies of *psychological needs*, which are at the core of Internet and gaming addiction, proposes seven groups of motives [4]: fun & entertainment, emotional relief, escape from reality, social needs (affiliation and belonging), achievement & self-

actualisation, the need for excitement and challenges, power & control.

not limited to, Internet video gaming, compulsive online sexual behaviours, Internet-related buying, gambling, cyberchondria, social media use, among others" [7].

In this paper, different views on Internet use in modern society will be considered, from ideas (over)emphasising its harmful effects on users' health, to ideas ignoring these warnings; from ideas that place the Internet at the heart of these processes, to those regarding the Internet as a means for managing one's needs, wishes and fears.

2. IS IT A REAL PROBLEM?

It is in human nature not to embrace new ideas and concepts easily. The same was true with the idea that Internet use may be problematic and that it can lead to mental health issues. Yet, once a person becomes aware of danger, they tend to exaggerate and see signs of that danger in everything. This is exactly what happened to Internet use. Thus, various researchers, and particularly media representatives, started competing for warnings against an array of Internet-use-related dangers, frequently overstating percent and degrees of the problem. A study from the beginning of the 21st century reported as many as 40% of the participants who at least partially fulfilled the criteria for Internet addicts [8]. The truth is most commonly somewhere in-between.

Very soon researchers realised that the time criterion, which was initially used as critical, is a changeable category. Due to the development of IT and the fact that it wove its way into every aspect of life, the initial criterion around ten hours per day very soon reached over 40 hours per week online, and then even more [2]. Even nowadays the time spent on the Internet is taken as the main criterion. However, serious authors maintain that it is justified to present Internet addiction (IA) as an extreme case of its excessive use when online activities, content, and their consequences, besides the time criterion, have to be taken into consideration [9]. The key difference between *excessive Internet use* and *Internet addiction* lies in that that addiction is qualitatively different. It is accompanied by lack of control, compulsive behaviour, and connected with negative effects on different spheres of life. We need to accept the fact that people are more and more relying on technology (mobile phones and computers) and Internet in the process of human development. However, that fact is neither a criterion for nor an indicator of addiction.

Similarly, it is the Internet that was frequently characterised as a problem, not the person using it, thereby unnecessarily directing attention solely to Internet features or online content, rather than characteristics of humans. "The Internet is an environment, database, system of activities, and as

such, it provides only opportunities; it is only an instrument for the realisation of the existent addictive tendencies, or other forms of psychological difficulties" [5]. Hence the title of this paper. When we talk about problematic Internet use, a person most commonly tries to solve their old problems with a new tool, which is the Internet. In due process, many of them are not actually trying to solve their problems (anxiety, depression, loneliness, family issues), but are simply fulfilling their needs, which are in their own right problematic, even in the "real" world (e.g., gambling, sexual compulsions, aggressive behaviour, bullying, etc.).

However, this "new twist" entails that the said problems take different forms when they are realised via the Internet. It is crucial to extract personal characteristics of users from technical features of media because they together form the media chain. Some features and forms of media either enable or prohibit the fulfilment of personal needs. Therefore, we cannot completely disregard the characteristics of the Internet and cyberspace, which may ease a compulsive use or preoccupation with online content and activities [2]. We will mention just a few:

- availability – with mobile phones, tablets, and other portable electronic devices, nowadays the Internet is available from almost every part of the world, at any moment, which means that a person may have a non-stop access to the gratifying object;
- anonymity – users have an opportunity to do what they want and to present themselves in a desired light, without any fear of other people's reactions;
- there are no temporal nor spatial limitations – we may communicate with people from "the other side of the world", any time we feel like it, at an available price for a growing number of people;
- a huge amount of information and their intensity;
- greater control – a user may choose contents according to their affinities, may freely express their reactions and take actions.

3. INTERNET ADDICTION, EXCESSIVE INTERNET USE, PROBLEMATIC INTERNET USE...?

The polarisation concerning the essence of the concept in question, including its name, started immediately after its first mention in expert literature, and it reflects different approaches in defining the type of mental health problems and clinical features underlining the concept. Is it an addiction, independent disorder or a symptom of some other psychiatric conditions? These are some of the problems and questions that we set to

answer more than two decades ago [5], which we will also mention now.

Work of several researchers in the mid-1990s resulted in a set of proposed diagnostic criteria for IA that resembled those formulated for Pathological Gambling [3]. At the same time, the mentioned ideas started to grow, those making a strict distinction between addictions *on the Internet* (the majority of individuals simply use the Internet as a tool medium to engage in specific types of rewarding behaviour) versus addictions *to the Internet* (individuals that are primarily addicted to content solely generated inside the Internet) [10]. The key problem lies in the fact that researchers attempted to place this disorder under the existing categories of mental health issues, while PIU shows similarities with many of them: addictions (in the first place with behavioural, like gambling disorder), impulse-control disorders (e.g., compulsive sexual behaviour) or obsessive-compulsive disorder.

The next issue relates to *classification criteria* for a form of online behaviour into the category of problematic use or a disorder. As already stated, the first criterion would be the time criterion for Internet use, which is followed by addiction criteria. However, addiction disorders, typically associated with PIU, are not a unitary construct, which makes the classification even more difficult. The main criticism upon classifying this problem as an addiction is that there is no intake of chemicals into the body. Nevertheless, using the Internet gives a feeling of satisfaction, triggered by activation of specific biochemical mechanisms (e.g., release of dopamine) in the CNS, similar to the effect of chemicals². Moreover, psychological dependence is always connected with biochemical reactions in the brain. Findings that support this idea are those revealing that the activation of the sympathetic and parasympathetic autonomic nervous systems in Internet addiction is similar to that in drug addiction [11].

Accordingly, the solution can be found in introducing the category of *behavioural addictions*, in order to classify Internet use disorders, but also other forms of addiction to activities, such as pathological gambling, compulsive shopping, etc. [12]. The DSM-5 introduced the category of "Substance Related and Addictive Disorders", and included Gambling disorder as a behavioural addiction, while Gaming disorder has recently been included in the ICD-11 section on "Disorders Due to Substance Use or Addictive Behaviours" [7]. Although the concept of behavioural addictions is related to the majority of PIU forms, for others, similarities with social anxiety, impulse-control disorders and OCD may be more prominent [7]. For

this reason, a consensus is being reached about the fact that each person displaying some form of PIU should undergo an extensive analysis, and assessment on whether it is the case of addiction, anxiety, or OCD, in that particular case, with the aim to direct future treatment in the right direction.

Finally, the term Problematic Internet Use is frequently used in scientific circles, as in this paper, so as to encompass a wider range of problematic behaviours and difficulties that may arise from Internet use, which do not necessarily meet the criteria for Internet addiction. Some of these problems will be given in further text.

4. SYMPTOMS, TYPES AND CONSEQUENCES

Regardless of small percentage of people who truly have some of the form of Internet addiction developed, it is evident that these people *do* exist, and that they report certain symptoms and difficulties due to excessive and dysfunctional Internet use.

4.1. How to recognise the problem?

As mentioned, many authors hold that nowadays we can talk about a spectrum from controlled and adaptive Internet use to uncontrolled and maladaptive, whereas uncontrolled use has been associated with marked functional impairment, including loss of productivity, and mental health issues, including mood and anxiety disorders [7]. Nonetheless, we shall start with the basic criteria that characterise Internet addiction [2-7]:

- Basic criteria for categorising it into a disorder are impaired control (unsuccessful attempts to reduce or cease the behaviour), preoccupation (increasing priority of Internet activities resulting in neglect of other daily activities and social relations), and continued use, despite the occurrence of negative consequences. However, when some of the criteria are not fulfilled, that still does not mean that the person will not have some form of PIU;
- Much rarer, but still present in persons with fully developed Internet addiction, are physiological addiction criteria: tolerance, and withdrawal symptoms (anxiety, hostility, irritability);
- Besides, there are mood swings, emotional sensitivity, conflicts with environment because of neglect of other activities, use of the Internet to escape from "real life" problems, as well as recidivism [9];
- Lastly, in more severe cases, there are physical and psychosomatic symptoms, such as chronic fatigue or insomnia, eyesight, and appetite problems, and so on [13].

² More information on the physiological basis of these processes can be found in Fineberg et al. [7]

Although we will not dwell on *predictors of PIU* in this paper, it is important to emphasise that a “number of studies indicated that comorbidities appear to be the norm, rather than an exception for individuals with the problem of IA or PIU”, with mood and anxiety disorders appearing to be particularly common in this context [14].

4.2. Consequences

Some of the negative effects of PIU overlap with the stated criteria for or symptoms of PIU or IA, but we will list them at this point as well [2, 7, 15]:

- low academic or educational outcomes, professional failure, neglecting household duties;
- problems in family and social relationships which may result in loneliness or social isolation;
- low physical activity and health-related side effects (back and neck pain, sleep problems, problems with appetite, eyesight problems);
- problems in cognitive processes, loss of focus, problem with concentration, learning, disruption of thought processes, etc.;
- distress, impulsiveness, mood swings, anxiety, restlessness, depression, irritability.

4.3. Types of PIU/IA

PIU can be expressed in various forms. The first two types, already mentioned in this paper, have been acknowledged as independent disorders, i.e., gambling and gaming disorders. We will name some of the most important ones.

Gaming disorder has existed before, but now it can realise its full potential through online mode (Internet-related gaming disorder), where an individual, besides gaming, fun and escape from boredom, can compete and communicate with other players. It refers to “excessive playing of online games, development of loss of control of the gaming behaviour, prioritisation of gaming over other important everyday activities, resulting in significant and substantial impairment in multiple areas of psychosocial or physical functioning” [3].

The next type pertains to persistent or recurrent gambling behaviour that results in impaired control over gambling, continuation, or escalation of gambling, despite the occurrence of negative consequences, leading to significant impairment in other areas of life [15]. Moreover, “the Internet has allowed new types of gambling to be available online, making Internet-related Gambling Disorder one of the most popular and lucrative businesses on the Internet” [3].

The next type is developed when someone is using the Internet to view or interact with pornographic material in an excessive way. Some findings point to around 12% of cyberpornography users that develop recurring and uncontrollable patterns of

pornography use, i.e., Cyberpornography addiction [3].

The type that is growingly being brought up, especially with an accelerated development of social networks, is excessive preoccupation with social media use – Social media addiction or Social networking. This dependence on communication in social networks, chats and forums can be focused on a specific social network (hence specified names as Instagram addiction, Facebook addiction, Twitter addiction). Nevertheless, the largest number of these individuals switching networks, as another one gains in popularity, while the others are becoming less popular. This problem can be related to the *fear of missing out* from activities that peers post online. Moreover, it can also include obsessive *preoccupation with ratings* on social networks (e.g., number of followers, friends, or likes, etc.).

A type of PIU that is not very common is Compulsive online shopping – craving for purchasing or e-shopping characterised by irresistible urges to possess consumer goods. “People with a shopping disorder buy more consumer goods than they can afford, need or frequently use” [3].

5. INTERNET USE RELATED PROBLEMS

For some people, problems with Internet problematic use may be a temporary, and thus may be spontaneously resolved. Unfortunately, in some cases, PIU becomes chronic, and turns into IA. Then, it is frequently underscored that the duration of intensive PIU is up to six months, after which it may be the case of IA [5].

However, users may develop some other type of problem while using the Internet, which is not necessarily, or entirely a clinical issue, although it makes difficulties in everyday functioning of a person. One of these problems is *endless Internet surfing*, when Internet users wander around websites, social networks, forums, reading or watching all kind of online content, endlessly following links, etc. [15]. Then, *digital hoarding* (a tendency to excessively collect, store or hoard digital material, including photos, music videos or YouTube videos). In some people, there is the case of excessive digital searching for medical information or *cyberchondria*. Although it is driven by the need to alleviate health-related distress or anxiety, it is ultimately resulting in the worsening of such symptoms and behaviours [3]. There is also *cyberbullying*, or the use of IT to harm, intimidate, or coerce other people online. Similarly, there is a phenomenon of *catfishing*, where people falsely present themselves in the hope of deceiving other users due to personal benefit or for other reasons.

The vital question in bringing the Internet into all spheres of life is a reduced boundary between what is exclusively a characteristic of a real, physical

situation in life and what is a property or part of virtual world. Very frequently, something posted in a virtual world can have the same or even a higher level of importance than something that has happened in physical world or direct communication [2]. On the other hand, Internet users often get relaxed when they start feeling safe with this kind of communication, and thus *online disinhibition* may occur, so they more readily take emotional risks, flirt, start a conversation more easily, give positive and negative comments and express their opinions easily, as well as aggressive impulses [2]. Both of these may lead to more serious problems.

6. CONCLUSION

A lot of online behaviour have the evolutionary function for humans in the era of new technologies. The Internet is a significant type of social activity, and as the most powerful form of the mass media, it is becoming important even for some psychological processes, such as identity formation, or personality development.

As noted in this paper, it is yet vital to draw attention to the alarming signs, which may be indicative of some of the Internet-use-related problems, or even PIU or IA. This takes on added importance since we know that there are still problems with reliable diagnostic criteria and valid assessment tools. Likewise, IA treatment is "not funded by the government across the world, leaving individuals seeking help either for other primary disorders or through private organisations" [14]. Finally, this is still a serious issue for younger generations, who are more attached to ICT, and are more psychologically vulnerable [16]. Age and gender relate importantly to PIU, with younger people typically having problems with gaming, social networks use and media streaming, males with gaming, gambling and cyberpornography, and females with social media and e-buying [9, 16, 17]. Therefore, it is important to discuss these problems, based on scientific and clinical findings, without exaggerations in the media and/or causing unnecessary fears in people of something that is and will be a part of our life.

REFERENCES

- [1] Statistical Office of the Republic of Serbia (2022). *Statistical calendar 2022*. Belgrade: RZZS.
- [2] Hinić, D. (2014). *Internet communications and the Internet use disorder*. Kragujevac: Faculty of medical sciences.
- [3] Fineberg, N., Dell'Osso, B., Demetrovics, Z., et al. (2021). *Learning to deal with Problematic usage of the Internet*. EU: COST Action CA16207.
- [4] Wan, C.S., & Chiou, W.B. (2006). Psychological motives and online games addiction: A test of Flow theory and humanistic Needs theory for Taiwanese adolescents. *CyberPsychology & Behavior*, 9(3), 317–324.
- [5] Hinić, D. (2011). Problems with 'Internet Addiction' diagnosis and classification. *Psychiatria Danubina*, 23(2), 145–151.
- [6] Hinić, D. (2019). *Internet use characteristics and indicators of problematic Internet use in student population*. X International scientific conference „Improving the quality of life of children and youth“, 21-23.06.2019. Istanbul, Turkey, pp. 458–468.
- [7] Fineberg, N., Demetrovics, Z., Stein, D., Ioannidis, K., Potenza, M., Grünblatt, E., et al. (2018). Manifesto for a European research network into Problematic Usage of the Internet. *European Neuropsychopharmacology*, 28(11), 1232–1246.
- [8] Leung, L. (2004). Net-generation attributes and seductive properties of the internet as predictors of online activities and internet addiction. *CyberPsychology & Behavior*, 7(3), 333–348.
- [9] Dinić, B., Petrović, J., Zotović Kostić, M., Mihić, V., Milovanović, I. (2021). *Vodič za prevenciju rizične upotrebe društvenih mreža kod adolescenata*. Novi Sad: Filozofski fakultet.
- [10] Griffiths, M. (1999). Internet addiction: Fact or fiction? *The Psychologist*, 12(5), 246–250.
- [11] Huang, A.C.W. (2015). *Autonomic nervous system and brain circuitry for Internet addiction*. In C. Montag & M. Reuter (Eds.), *Internet addiction: Neuroscientific approaches and therapeutical interventions* (pp. 111–129). Berlin: Springer Science.
- [12] Griffiths, M. (1996). Behavioural addictions: An issue for everybody? *Journal of Workplace Learning*, 8, 19–25.
- [13] Cerniglia, L., Zoratto, F., Cimino, S., Laviola, G., Ammaniti, M., & Adriani, W. (2017). Internet Addiction in adolescence: Neurobiological, psychosocial and clinical issues. *Neuroscience and Biobehavioral Reviews*, 76, 174–184.
- [14] Kuss, D.J., & Lopez-Fernandez, O. (2016). Internet addiction and problematic Internet use: A systematic review of clinical research. *World journal of psychiatry*, 6(1), 143–176.
- [15] Young, K.S., & de Abreu, C.N. (2011). *Internet addiction: A handbook and guide to evaluation and treatment*. Hoboken, NJ: John Wiley & Sons, Inc.
- [16] Hinić, D., Zotović, M., Beara, M., & Rakić-Bajić, G. (2020). Relationship of Problematic Internet use and Positive orientation indicators in adolescents. *Psihologija*, 53(4), 341–357.
- [17] Andreassen, C. S., Billieux, J., Griffiths, M. D., Kuss, D. J., Demetrovics, Z., Mazzoni, E., & Pallesen, S. (2016). The relationship between addictive use of social media and video games and symptoms of psychiatric disorders: A large-scale cross-sectional study. *Psychology of Addictive Behaviors*, 30(2), 252–262.