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Cyberaddictions to Video games and Facebook: A Reflection on Social Markers

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Abstract

The condition of cyberaddiction is a central issue for scientists and researchers as to be listed or not in the DSM5. While the decision not to include cyberaddiction in the DSM5 is official, the question between some researchers who wish to see this condition included and others who argue the operational and practical basis for the diagnostic criteria, continues to nourish a heated debate[1-6]. This debate is equally true about addiction to videogames[7-11] or to Facebook.

Considering the infinite literature on this contemporary subject, this article will limit it's reflection and analysis more on video games and Facebook addictions. Finally, we will reflect on a psychosocial perspective to seaze this multifactorial phenomenon and paths for intervention.

Keywords: Cyberaddiction; Video Games; Facebook; Mental Health; Intervention

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Introduction

More and more countries have embraced video gaming as it is becoming one of the most popular contemporary recreational activities in the world. In the United States, 59% of all Americans play video games[12] while it is 48% for Europeans[13]. If a majority of users can play without any harm, a minority do develop problems that can lead to addictions.

According to Ferguson, et al. (2011) the addiction rate can reach 6.0% for video games. Using a Game Addiction Scale[14,15], have found a prevalence rate of 4.2% of addicted gamers among Norwegian adolescents, 12.9% of problem gamers, 4.9% of engaged gamers, and 78% of nonproblem gamers. Other negative psychological indicators can be associated with video game addiction[7,16]. We can think of depression[17], suicidal ideation[18] and anxiety[18]. According to Gaetan, Therme & Bonnet[7], the avatar in the video game is more than a simple character, he/she represents a version of an idealized self. In this context, it compensates to the gap between the actual self and the ideal one therefore explain the depressive symptomatology associated with a low self esteem. In an abusive pattern of video games, this selfdiscrepancy marker is to be understood as a new identity self construct in search for a new mental health equilibrium. In terms of prevalence for depression, Gaetan, Therme & Bonnet[7] underline that the prevalence is 20% among adolescents while the national average in France is 15.5%. These studies reported also that the youth category have a greater risk of feeling low, irritable, nervous, exhausted, and afraid when compared to nonproblem gamers. According to Pierceall[19], there is a global marketing strategy from the gaming industry to increase the video games while gambling at the same time.

Considering these facts, cyberaddictions are not mere myths but a true empirical reality[20]. Facebook world's wide reach hundreds of millions of people and this confirms that social life, business, and communications depend increasingly on this medium. In 2012, Farmville, one of the most popular social networking games on Facebook hosted over 5 million daily users[21]. Today, the milestone of close to one billion 400 million users has been exceeded; of those users, 526 million spend an average of 52 minutes per day on Facebook, and 398 million connect to it at least six days a week[11]. It should be remembered that Facebook compiles information on its users' consumption habits, associates, musical tastes, and brand preferences. Thus, it is a very lucrative medium for advertising and marketing agencies to identify and target specific needs and consumption trends for all kinds of products. Insofar as this communication space also creates a particular kind of social tie, the nature of these ties, their frequency, and their intensity have been investigated by several scientific studies, with the aim of determining to what extent overuse of Facebook can constitute

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a cyberaddiction[10, 22-25].

What is cyberaddiction? A complex phenomenon with no clear accepted definition. In this context, it is suggested to refer to criteria still directly inspired by pathological gambling or addictions to psychoactive substances (e.g., alcohol, heroin, cocaine, cannabis). In 2013, the psychiatrist responsible of the research committee for addictions in the DSM5, Charles O'Brien, insisted to consider more Internet gaming disorder instead of Internet use disorder[26,27]. Bearing these nuances and qualifications in mind, here are some attempts at a definition inspired by these remarks and observations.

1. Cyberaddiction is the excessive use of the means of communication offered by the Internet. An individual with this addiction has lost control and constantly seeks connection with the Internet, with the result that his/her social and personal life are organized around it.
2. Cyberaddiction is a psychological and social disorder resulting in a loss of control and an irresistible, obsessive need to use the Internet.

The Example of Video Games

Is there such a thing as online video game addiction? That is the question that was asked by a group of researchers with a cross-disciplinary review[28]. To avoid confusion in terminology, Tisserson[29] encourages us to consider what the word *virtual* means. By clearly distinguishing between *virtual* and *imaginary*, he reminds us that the form of relationship brought into play in the virtual spaces of the Internet is quite different from what exists when there is a real interlocutor. The five senses (hearing, taste, touch, smell, and vision) play a role in our face to face communications with an actual person, whereas there is little or no sensory connection when one imagines merely an interlocutor. Understood in this way, the virtual connection is neither real nor imaginary for the interlocutor, as it is limited to the senses of sight and/or hearing. In either case, excessive use represents a danger and creates the potential for cyberaddiction.

With regard to video games, and insofar as the gamer constructs his/her own trajectory, we observe two kinds of interactions. The first are sensory and motor interactions that relate to primary sensations, feelings of immediacy and allow stressful conditions such as fear, anger, or anxiety to show through. The second are emotional and narrative interactions that leave more room for empathy and identification; as Tisserson[29] would say, the player reflects before acting. Both kinds of interactions are essential to understand the process of problematic use because, when a player is in his/her "bubble," a drift in time and space, and dissociated from reality due to video games, he/she is immersed in a more compulsive activity.

Although it is well known that adolescents and young adults represent the most atrisk category, epidemiological data are to a certain extent rare. In one study based on clinical reviews of 11 cases, Pascutini, et al.[30] used tests evaluating Internet use and the TejeiroSalguero scales for video games, depression, impulsivity, and sensation seeking. The results showed that the player's average age was 18.5 years and 90.9% were single men living with their parents. The average gaming time was 66.9 hours per week, ranging between a minimum of 14 and a maximum of 140 hours per week.

Based on MMORPGs (Massively Multiplayer Online RolePlaying Games), networked games with a large number of players[7, 31- 33] confirmed the same trend. While World of Warcraft (WOW) is the most popular video game in the world with more than 12 million players, some studies reveal that the average age is 27 years, of whom 84% were men and 16% women. [21,34] A recent study of 1,420 online gamers playing MMORPGs revealed that the rate of cyberaddiction ranges between 3.6% and 44.5%, depending on the type of assessment used[35]. Years of exposure and total time spent online were identified as central to the development of the pattern of cyberaddiction. Valleur & Matysiak[31] revisited the aspects that can "hook" the player, reminding us of the three key components: the act of playing a character, the nature of the world in which the character exists, and the community and social aspect that induces interdependency among players. In other words, MMORPGs allow players to explore the border between fantasy and reality, the real and the imaginary, the self and the other. Investing emotionally in a character can also mean losing oneself behind one's avatar, which can result in serious problems.

In terms of generation gap that often separates parents and their children in this technological world, Rossé[32], a clinician psychologist working on these issues, invites the parents to invest in the social world of their loved ones in order to keep in touch, not only in the virtual world but also in the daily reality of their lifestyle. The lack of investment can translate often in conflicts in parentchild communication. As the time spent in front of screens gradually increases to dangerous levels, and conflicts and misunderstandings in parentchild communications increase along with it, the young people tend to seek refuge in front of the screen even more, as a strategy for adapting to these tensions.

Clinical observations show that this tendency seems to be strongest in disengaged families, where there is often a lack of rules and rituals in relational and familial dynamics[36]. Rossé [32] emphasizes that most of these manifestations are found in difficult parental situations (divorce, singleparent family, weaker social ties and networks).

Another common denominator emerging from these clinical observations relates to the negative feelings these young people feel about society in general. As an alternative to an IRL (in real life) existence in which they are unable to integrate and belong, young people can avoid social reality by opting for a virtual world that can offer them almost everything in the here and now. This instantaneity also lets them avoid their body image issues, in that a young player's physical-and social-body can merge into and disappear behind a game character, an avatar, of his/her own choice. This transposition of psychosocial reality via virtual gaming also responds to relational and affective issues such as intimate encounters, which are often less restrictive and stressful than in real life. As an example, we can think about the annual avatar conventions around the world where the players come wearing their avatar's costumes. To what extent the player's real personality is invested by the character's avatar personality?

According to Rossé[32], one of the most attractive features of these video games is the sense of being together in a community-neither alone nor with other people. Because they are able to feel in control of their relational and social world and situate their identity exactly where they would like it to be, young people respond momentarily to narcissistic feelings and benefit to some extent from antidepressive sensations, thanks to the world of gaming.

Among factors identified as being important in this potential cyberaddiction :

• **Infiniteness**: there is no end to gaming; it takes place 24/7 and is therefore accessible day and night;

• **Certainty**: as soon as one executes the right action, gratification is immediate. The key is the amount of time invested; you just need to invest enough time to succeed;

• **Immersion**: the magical and aesthetic worlds contribute to some extent as they exert a significant visual attraction;

• **The Importance of players' Community and Interdependence:** because gamers do not reveal their real identity and personality, and social reaction in the public sphere is put on the back burner, this social world organized around anonymity can encourage them to get "hooked" on the virtual social network;

• **Ubiquity**: doing more than one thing at once suits the multitasking personality. Clinically speaking, Hautefeuille & Wellenstein[33] corroborate this reality,

Showing that problematic kinds of video game use do indeed exist. In 2009, some 60 French language professionals around the world created a clinical network called *La Guilde* (the Guild) with the aim of expanding their knowledge of these conditions and discussing possible approaches to clinical intervention and support. To sum up, they found that most gamers (77%) played MMORPGs and 69% of cases claimed to have become habituated to gaming, while 52% experienced depressive states[33]. In Quebec, the largest treatment center in Quebec, Centre Dollard Cormier is currently treating 75 people suffering from this kind of addiction, which confirms that, although it concerns a virtual world, the problem is a real one[37].

Some people defend the use of video games, claiming that some action games can increase visual acuity, ability to concentrate, and visual short term memory. On one hand we can think of the french child psychiatrist Marcel Rufo who suggests using an iPad at the age of three, as an alternative to treating hyperactive behavior with Ritalin. This psychiatrist has installed video games in his waiting room for his very young patients. The time these young children (aged three to four) spend playing, around 10 minutes, enables them to channel their attention in a positive way:http://www.gameblog.fr/blogs/poufy/p_17505_marcelrufoconseillelesjeuxvideodes3ans (consulted February 7, 2013). Viewed from this perspective, the use of video games can have a calming effect on hyperactive children and may even enhance the brain's intellectual capacities. On the other hand, Tisseron[29] an expert psychiatrist on Internet culture and child's development, did demonstrate that children develop their imagination, memory and resilience when they read books instead of reading on a screen. Among the explanations, the culture screen is an eternal present as it is an instant response with a click while in the book there is a before, a present and an after. This story narration while reading contributes to a better imagination for the child and therefore his development process. In the same logic, Pagani, Fitzpatrick & Barnett[38] did find that every hour a child (29 months) is exposed to a television screen translates into a diminution of vocabulary and competencies in mathematics, a lower participation in the classroom and lower physical skills while joining the preschool level. To the extent that the early child period constitute a crucial phase for the brain's development, the child learns by what Pagani, Fitzpatrick & Barnett call " direct experiences", interactions with humans that permits the growth of social and emotional intelligence.

One of the last medical discoveries using a video game is it's application of eye complications and treatment[39]. A researcher from McGill University, Dr Simon Clavagnier, developed a video game in collaboration with Ubisoft company. It is a black and white game where the interactive elements are in red and blue in order to target each eye. Suffering from amblyopia, a visual deficiency where the brain uses only one eye the other one being too weak, the video treatment create the conditions where the two eyes are mobilized. Within two months, the brain learns to use both eyes and the vision is definitely corrected. (http://m.radiocanada.ca/regions/montreal/2015/03/03/004jeu-videovisionamblyopiecorrectionyeux.shtml)

Hooked on Facebook: Addiction to Social Media?

Wilhelm Hofmann of the University of Chicago studies personal and social psychology, with a particular emphasis on selfregulation and decisionmaking. A study of resistance of the desire to consult one's Facebook page reveals that it is very difficult to stop following social networks; the impulse to visit them is gradually transformed into an intense need or desire[40]. While Nadkarni & Hofmann[41] question the basic motivations behind using Facebook in terms of personality and individual differences, Lewis deepens our understanding of what he calls the biology of desire[42].

According to Hofmann, Schmeichel & Baddeley[25], addiction to social media is more difficult to treat than addiction to psychotropic substances because this desire is more difficult to resist in view of its greater availability and lower cost. Luhmann, et al's[43] study of subjective daily desires confirms this trend: the later in the day it is, the less willpower one can muster against social networks, and consequently the less one can exercise self-control. Can we describe this as an increased tolerance of Facebook- the more you use it, the more you experience a "loss of control" and willpower?

In a study conducted by a French psychiatrist on 517 people with an average age of 26 years recruited on Facebook and in chat rooms, Couderc[22] compiled information on years of use, number of friends, goals sought, and time spent, as well as sociodemographic data. The results revealed that young "addicts" spent three times as much time on Facebook as the average user: 191 minutes per day. Among other factors predicting cyberaddiction, Couderc noted that "addicts" connected an average of 11 times a day and had more virtual friends; 48% of them showed signs of depression, compared to 9% of regular users, while 4.5% of the sample showed symptoms of depression as defined by the DSMIV. While exclusive investment in Facebook trumps other sources of interest and pleasure in the peoples' lifestyles it is suggested to call it SMAD (Social Media Anxiety Disorder).

A Norwegian psychologist Cecilie S. Andreassen and her team at the University of Bergen, created a tool called the Bergen Facebook Addiction Scale to measure addiction to Facebook[10]. Based on a sample of 423 students (227 women and 196 men), the findings were similar to those of Couderc[22]: addiction is more likely to occur among young users who are anxious and live in precarious social situations in which virtual communication is less anxiety provoking than facetoface communication. The Bergen Facebook Addiction Scale is based on six basic criteria assessed as (1) Very rarely, (2) Rarely, (3) Sometimes, (4)

Often, and (5) Very often:
• You spend a lot of time thinking about Facebook or planning how to use it
• You feel an urge to use Facebook more and more
• You use Facebook in order to forget about personal problems
• You have tried to cut down on the use of Facebook without success
• You become restless or troubled if you are prohibited from using Facebook
• You use Facebook so much that it has had a negative impact on your job/studies

If you have at least four of these six characteristics, and when you are afraid to disconnect from Facebook because you think you are going to miss something important, you may be "addicted" to Facebook. Said differently, the more you are connected, the more lonely you are in terms of real social ties.

Conclusion and Outlook:

To sum up, although we are all candidates for different addictions, there is no doubt that when the primary motivation is pleasure, the likelihood of developing a problem is very low or even non-existent. For example, one might consider the great majority of people who are moderate drinkers of alcohol when the ritual associated with its use (not misuse) is connected with pleasure, conviviality, and sharing. On the other hand, when the primary motivation is to escape from difficulties related to work stress, loneliness, boredom, low selfesteem, or identity or mental health problems, the chances of triggering an addiction are higher.

Another positive marker, which is more related to personality, complementing our understanding of the cycle, is when a person has many sources of interest and satisfaction in his/her lifestyle[42]. Equipped with these assets, the individual is less likely to become dependent because he/she can tap into a variety of personal and social resources that constitute protective factors. Insofar as environment in the public arena encourages certain norms and behaviors as being socially desirable and discourages others, one can better understand the centrality of environment in determining what is acceptable and what is not[2,44]. Some Canadian experts and therapists propose also Internet-based interventions for gamblers who develop addictions[45]. The use of technologies and social networks has completely changed our social relationships and the process of socialization. This multitasking approach to social reality and communications has a number of positive aspects but also some potentially harmful ones[2]. Despite the growth in knowledge regarding cyberaddictions, the study of this phenomenon is still in its beginnings. As technology continue to grow at its current speed, mental health professionals should be aware of the spectrum of Internet Addiction (IA), and work towards implementation of preventive, diagnostic and treatment strategies[4].

Although cyberaddiction is a way of escaping from reality, the virtual behavior often stems from more profound suffering and is directly related to feelings (low selfesteem, anger, sadness, etc). It is important to act proactively and preventively by giving young people and their parents objective, non-moralistic information about the potential harmful consequences associated with video games and Facebook (depression, romantic breakups, family problems, cyberbullying). Parents can feel helpless when they realize that their children are already hooked and dysfunctional in their lifestyle. Preventive practices aiming at informing the parents and schools about this « silent epidemy » cannot be harmful, it can only create more constructive conditions to share their concerns and find positive alternatives.While the dominant medical model privileges *symptomatology instead of etiology* without tackling the context that gave birth to these conditions, could we not include psychosocial determinants in our intervention perspective? Is there room for a more unified and multifactorial approach in the DSM5 ?[46]

In light of these observations, we can conclude that there are different schools of thought regarding the place that video games and Facebook can or should occupy in social life. Given that games and social media have become more popular and are clearly here to stay, would it not be appropriate to favor a harm reduction approach, rather than aiming to control and legislate them?

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