A conceptual and methodological critique of internet addiction research: Towards a model of compensatory internet use

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A R T I C L E   I N F O

A B S T R A C T

Internet addiction is a rapidly growing field of research, receiving attention from researchers, journalists and policy makers. Despite much empirical data being collected and analyzed clear results and conclusions are surprisingly absent. This paper argues that conceptual issues and methodological shortcomings surrounding internet addiction research have made theoretical development difficult. An alternative model termed *compensatory internet use* is presented in an attempt to properly theorize the frequent assumption that people go online to escape real life issues or alleviate dysphoric moods and that this sometimes leads to negative outcomes. An empirical approach to studying compensatory internet use is suggested by combining the psychological literature on internet addiction with research on motivations for internet use. The theoretical argument is that by understanding how motivations mediate the relationship between psychosocial well-being and internet addiction, we can draw conclusions about how online activities may compensate for psychosocial problems. This could help explain why some people keep spending so much time online despite experiencing negative outcomes. There is also a methodological argument suggesting that in order to accomplish this, research needs to move away from a focus on direct effects models and consider mediation and interaction effects between psychosocial well-being and motivations in the context of internet addiction. This is key to further exploring the notion of internet use as a coping strategy; a proposition often mentioned but rarely investigated.

1. Introduction

Internet addiction[1] is typically described as a state where an individual has lost control of the internet use and keeps using internet excessively to the point where he/she experiences problematic outcomes that negatively affects his/her life (Young & Abreu, 2011). Examples of such outcomes are cases where individuals lost sleep or skipped meals because they were spending time on the internet, or where internet use has resulted in conflicts with family members or led to the detriment of a job or educational career. Most research on internet addiction is based on initial research by Young (1998), who conceptualized internet addiction as an impulse-control disorder, deriving diagnostic criteria from the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV) diagnosis for pathological gambling. Since addictions were not acknowledged in DSM-IV, Young contended that the diagnosis of pathological gambling was most akin to the pathological nature of internet use and adopting

the criteria would be helpful in clinical settings and stimulate further research (Young, 1998).

The subsequent empirical work has not been successful in terms of agreeing on a definition or the diagnostic criteria, nor in the explanations of what leads to or follows from internet addiction. Researchers have also been unable to agree on who is at greater risk, unable to agree on whether the problems are persistent and unable to determine whether the proposed methods for treatment are successful. Despite finding many associations between psychosocial well-being and internet addiction researchers have been unable to agree on a general theory about the etiology.

Traditionally, research on internet addiction has focused on direct effects models exploring the associations between psychological vulnerabilities and internet addiction. Studies have explored vulnerabilities such as depression (Kim et al., 2006), low self-esteem (e.g., Fioravanti, Dèttore, & Casale, 2012) and high sensation-seeking (Armstrong, Phillips, & Saling, 2000; Velezmoro, Lacefield, & Roberti, 2010; Widyanto & McMurran, 2004), loneliness and shyness (e.g., Caplan, 2002, 2003, 2005; Kim, LaRose, & Peng, 2009), locus of control and online experience (Chak & Leung, 2004), attention-deficit/hyperactivity/impulsivity symptoms (Yoo, Cho, & Ha, 2004) and suicidal ideation (Kim et al., 2006). Studies have also explored the association with psychosocial well-being (e.g., Young & Abreu, 2011; Caplan, Williams, &

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[1] Or excessive internet use, compulsive internet use, problematic internet use – labels that have been used interchangeably to describe more or less the same concept (Widyanto & Griffiths, 2006).

Yee, 2009; Lemmens et al., 2011; Van Rooij, 2011) as well as the association with various personality traits (e.g., Leung, 2007; Lo et al., 2005; Whang, Lee, & Chang, 2003), interpersonal skills and intelligence (Byun et al., 2009).

This psychologically oriented approach to studying internet addiction has yielded plenty of statistically significant results. However, because most factors were found to be significant predictors it has not been possible to make any claims about unique risk factors which has made it difficult to isolate the causes behind internet addiction. Furthermore, as I discussed in a recent article (Kardefelt-Winther, 2014) the associations for both loneliness and social anxiety with excessive online gaming lost significance when stress was controlled for. This result cautions that vulnerabilities posited as significant predictors of internet addiction may only be significant by virtue of being examined in isolation from other factors. A direct effects approach has not allowed researchers to explore the significant predictors of internet addiction while controlling for interactions with other influencing psychosocial conditions or mediating variables. Therefore, in terms of theory building the psychological approach has not contributed much to a better understanding of why some people keep using the internet despite experiencing problematic outcomes.

The lack of theoretical development is evident in Young's edited book (2011) where each chapter suggests different causes for internet addiction. Although it constitutes an important effort to summarize the existing research it leaves the reader with many possible explanations but no consensus. Considering the amounts of data that have been collected and the efforts made, the lack of progress indicates that there are issues somewhere along the way that makes theoretical development difficult. Ingleby's (1981) review of epistemological issues in psychiatry suggests that researchers sometimes delude themselves that all that is needed for theoretical development is just "more findings". He further suggests that *"the literature on mental disorders is quite out of proportion to the adequacy of our knowledge about them"* (p. 23). What matters, Ingleby argues, are the fundamental principles which govern the acquisition and interpretation of "findings"; and these principles, although they are governed by matters of fact, are not themselves discovered empirically – they are as much philosophical as scientific ones (p. 24). What is needed, then, is not more findings but a reappraisal of the kind of explanations we should be looking for. Following Ingleby's ideas, there may be much to gain by considering alternative theories for internet addiction that do not only take the literature on mental disorders as its starting point.

Early speculation by Young suggested that internet addiction may occur when the internet is used to cope with difficult real life situations (1998). This has been repeatedly mentioned in the literature on internet addiction (e.g., Armstrong et al., 2000; Bessière, Kiesler, Kraut, & Boneva, 2008; Chak & Leung, 2004; Kim et al., 2009; Kuss, Louws, & Wiers, 2012; Shen & Williams, 2011; Whang et al., 2003; Widyanto & Griffiths, 2006; Young, 2009; Young & Abreu, 2011) but rarely empirically investigated. The tenet of Young's speculation is that internet use has a propensity to alleviate dysphoric moods and may therefore be used to cope with or compensate for real life problems. Similar ideas about the compensatory potential of media use was suggested in an early study by Kubey and Csikszentmihalyi (1990), who claimed that people were more likely to engage in bouts of heavy TV watching when they were in dysphoric states. Bessière, Kiesler, Kraut, and Boneva (2004) stated that if this logic applies to the internet as well, it would suggest that people who are feeling bad are using online entertainment as a form of self-medication (p. 31). Indeed, in later works Caplan and High (2011) also suggested that through the exchange of online messages, users compensate for what they may lack in real life. In the context of internet addiction, Young and Abreu (2011) discussed whether an individual becomes addicted to Facebook because they are using Facebook to fulfill missing social needs (p. 12). These recent discussions take the idea of compensatory internet use to a more detailed level where applications are assumed to have different compensatory potential depending on their affordances.

However, while plenty of speculation has surrounded the idea of compensatory internet use few studies have empirically investigated the compensatory potential of internet applications in the context of excessive internet use. Crucially, researchers have not investigated whether a theory of internet addiction based on the idea of compensation may better explain why people spend so much time online that they experience problematic outcomes, compared to the dominant theory of internet addiction as compulsive behavior and a mental disorder. While there is a theoretical basis for investigating internet addiction as mental disorder, no theoretical model exists to support research on compensatory internet use in this area. The lack of theoretical support may be one reason for why the idea of compensation is repeatedly mentioned but rarely followed up empirically. It would also explain why the conceptualization of internet addiction as a mental disorder is still dominating research despite the apparent shortcomings in terms of furthering the development of internet addiction theory (e.g., Widyanto & Griffiths, 2006).

In this paper I will develop the claim that internet addiction can be usefully approached from a perspective of compensation rather than compulsion. Instead of the compulsive, pathological, nature that internet addiction is ascribed in the literature, I argue that it can be better understood as a coping strategy grounded in understandable (but not always healthy) motivations. This follows on Wood's (2008) observation that theories of addiction are increasingly moving away from a focus on the activity or substance as a causal factor and instead suggesting that *"addiction concerns the interaction between the individual, their culture and their environment"* (p. 177). In his paper, Wood (2008) recommends a dose of healthy skepticism towards the idea of video game addiction, but maintains that a minority of people do play excessively. A model of compensatory internet use recognizes and seeks to understand this minority outside a framework of pathology and mental disorders. I will discuss how researchers can develop this theory by combining existing research on the psychological antecedents of internet addiction with knowledge from research concerned with the attractions and compensatory potential of the internet.

2. Towards a model of compensatory internet use

This paper proposes a theory of compensatory internet use where negative life situations can give rise to a motivation to go online to alleviate negative feelings. The basic tenet of the theory of compensatory internet use is that the locus of the problem is a reaction by the individual to his negative life situation, facilitated by an internet application. As an example, if real life is characterized by a lack of social stimulation the individual reacts with a motivation to go online to socialize which is facilitated by an application where socializing is afforded, such as an online game or a social networking site. This can then have positive and negative outcomes: positive in the sense that the individual feels better because he gets the desired social stimulation and negative because he may not go out and make new offline friends, which in the long run means he could become dependent solely on the internet for social stimulation. This scenario would be labeled as an internet addiction when approached through a pathological perspective, but has little to do with the compulsive nature of addictions. It is an understandable and practical way to acquire social stimulation when there is a lack of it (e.g., Chappell, Eatough, Davies & Griffiths,