Studia Psychologica UKSW 15(2) 2015 s. 123–137

NICOLA F. JOHNSON¹ Federation University Australia

ARGUING THE NEED FOR QUALITATIVE EXPLORATION IN THE FIELD OF EMERGING DIGITAL PATHOLOGIES

Abstract

Little has been done globally to ethnographically (and holistically) study and understand the lives of heavy Internet users, with insufficient qualitative research (that is, exploratory, descriptive, inductive) published throughout the world. This article presents the findings from qualitative semi-structured interviews with five psychologists, who were asked about their understanding of addiction and Problematic Internet Use. The findings demonstrate the complexity of the field and the possibility of co-morbidity, suggesting that so-called "Internet abuse" or multiple derivatives of the label are inaccurate and unhelpful. In-depth qualitative research is needed to add depth and insight to this highly topical area, where a myriad of scales are being put forward, tested and validated from one hegemonic paradigm within this field. Further nuanced understandings of Internet use need to be developed to work towards constructing theories and pedagogies that help to understand and address digital pathologies successfully.

Keywords: Internet, pathology, qualitative

O POTRZEBIE BADAŃ JAKOŚCIOWYCH W ZAKRESIE DYSFUNKCJI ZWIĄZANYCH Z TECHNOLOGIAMI CYFROWYMI

Streszczenie

Dotychczas przeprowadzono niewiele badań etnograficznych (i holistycznych) pozwalających zrozumieć sposób życia użytkowników internetu poważnie od niego uzależnionych. Dotyczy to szczególnie badań jakościowych (czyli eksploracji, opisu, badań prowadzonych metodą indukcyjną), które byłyby publikowane na całym świecie. W artykule przedstawiono wnioski z częściowo ustrukturyzowanych wywiadów z pięcioma psychologami, którzy zostali poproszeni o przedstawienie swojego sposobu pojmowania uzależnienia od internetu i dysfunkcjonalnego korzystania z niego. Wyniki badań wskazują na złożoność problemu i możliwość współwystępowania tych jednostek z innymi zaburzeniami. Może to sugerować, że tak zwane nadużywanie internetu

¹ Correspondence address: nicola.johnson@federation.edu.au

NICOLA F. JOHNSON

lub wiele podobnie określanych syndromów stanowi pojęcia niedokładne i mylące. Potrzebne są dalsze, wnikliwe badania jakościowe, aby dokładnie zrozumieć i pogłębić analizy tak często omawianego problemu, dla którego opracowano i zweryfikowano mnóstwo kwestionariuszy w ramach jednego, dominującego paradygmatu badawczego. W dalszej kolejności potrzebne jest bardziej subtelne zrozumienie sposobów korzystania z internetu, aby wypracować teorię i pedagogikę, które byłyby pomocne w skutecznym rozwiązywaniu cyfrowych patologii.

Słowa kluczowe: internet, patologia, badania jakościowe

INTRODUCTION

Much media attention has been given to the perceived over use of the Internet and its detrimental effects, for instance, anti-social behaviour, abnormality, and an unhealthy, sedentary lifestyle. Those who argue for the treatment of Internet addiction claim that high usage of the Internet is unhealthy and such addiction will lead to damaging engagement with pornography, gambling, a dependence on those who are not real, and inevitable addiction (Kim & Davis, 2009; Mitchell et al., 2009; Morrison & Gore, 2010). A significant proportion of studies has also focused on heavy Internet use as needing to be 'fixed', claiming it to be an aberrance or deviance from what is considered to be normal behaviour, that is a psychopathologisation (Harwood, 2010). Mantras from healthy living discourses are being applied to the Internet to compensate for a moral panic, despite the claim that addiction is a disorder of choice (Heyman, 2009). Keane's (2002) work on the historical constructs of drug addiction and alcoholism brings her to claim:

Discourses of addiction not only set out criteria by which some people are defined as outside the realm of proper and viable subjectivity, they also produce the right sort of body, the right way to live, the right way to be and the right sort of relationship to have to oneself and to others. But these ideals are promoted as the universal requirements of health rather than specific ethical formations (p. 189).

Addiction discourses are being constructed that do not take account of actual experiences. Further descriptive research in the field of digital pathologies is critical as values about what constitutes acceptable practice regarding 'health', 'wellbeing', 'leisure' and 'learning' are being imposed on society. Therein lies the need for studies that are exploratory and descriptive in focus.

As Internet Addiction has been suggested for inclusion in the American Psychiatric Association Diagnostic and Statistical Manual of Mental Disorders No. 5 (Young, 2004; Block, 2008), it is important that the public is well informed, additionally because calls for Internet Addiction Disorder and subsequent

treatment is proliferating within Australasian media (e.g., McDougall, 2011; 3 News Online Staff, 2012).

While qualitative research cannot answer all questions, in this field of research surrounding digital pathologies, the predominance of quantitative research is concerning. Indeed, there are few studies that employ mixed methods. As quantitative research provides generalisations and seeks to showcase representative samples from the population that can possibly be applied to other groups of people and other settings, this does occur but almost to a point of error. This article emphasises the value and necessity of qualitative research within a field that is remarkably complex, demonstrative of contestable historical and current constructs (Johnson, 2011). The research surrounding Internet over-use, mis-use, abuse, addiction and problematic use is limited if it only embraces one methodological approach and therefore one epistemological perspective. It is important that we document the multiple realities of these day-to-day lived experiences, detailing the actual experiences from the voice of those concerned, rather than imposing words and criteria from other fields (Mol, 2002). Active reframing of disdained practices may emerge through the provision of evidence-based qualitative research that seeks to understand and explain the phenomenon, rather than continuing to impose hypotheses explaining behaviour from a detached, decontextualised assumption. The marginalisation of people's everyday practice as detrimental (if it does involve Internet over-use) needs to be countered with the provision of evidence that demonstrates just what is going on and what it means for learning, and for society in general. Problematising people's Internet use (if it is all-consuming) transfers to a problematisation of their identity, that is, a psychopathologisation (Harwood, 2010) of practice regarded as aberrant and users labelled as deviant. Taken-for-granted assumptions need to be unsettled (Madison, 2005), through extending and applying critical and poststructural theories.

DEFINING THE PHENOMENA

The actual disorder or problem under investigation has many names and has arbitrary definitions (Keane, Moore & Fraser, 2011; O'Brien et al., 2006; Johnson, 2009a; Shaffer et al., 2000). Sarup (1993) argued for the need to identify how "rhetorical devices shape our experience and our judgements, how language serves to promote the possibilities of certain kinds of action and exclude ... others" (p. 47). A number of scholars have highlighted that there is an inappropriateness in applying medical models of addiction of drug use to sex and the Internet, e.g., previous work has explored discourses of addiction (Johnson, 2009a, 2009b; Heyman, 2009; Keane, 2002) and neuroscientific (disease) and behavioural models of addiction (e.g. Keane & Hamill, 2010; Seear & Fraser, 2010). In this context, physicians (e.g. O'Brien et al., 2006) and drug addiction

researchers (Keane et al., 2011) continue to debate and contest the politics and ethics surrounding the terms 'addiction' and 'dependence'. Shaffer, Hall and Vander Bilt (2000) argue that addiction as a general concept lacks strenuous construct definition and has widely been incorrectly applied to a range of human activities. They have critiqued the general addiction framework and the 'medicalisation of online behaviour', and urge caution in applying the term to 'intemperate' use of the Internet.

A further contestable notion surrounds just what precisely constitutes Internet 'over-use' or 'heavy' use. Indeed, there are no categorisations surrounding the time required to spend online to be deemed a 'light' or 'heavy' user. Public discourse shows that 'addiction' is understood and experienced in various ways, and is sometimes just used as an excuse for practices that are just preferred or habitual (for example, "I'm so addicted to my mobile phone", see Johnson, 2009a). Understandings and realities of Problematic Internet Use are multiple and users are positioned in accordance with what beliefs and ideologies are employed (Yellowlees & Marks, 2007).

The problem

Internet over-use is pathologised, yet those that argue for the 'disorder' are not informed by research that documents the existence and outworkings of the supposed aberrance. Keane et al. (2011) claim "all diagnostic instruments and practices construct their objects rather than describe a pre-existing 'reality'" rather than seeing "reality as partially produced within the scientific processes used to 'observe', 'measure' or 'diagnose' it" (p. 868). Little work has been done before to address the problem of the pathologisation of these cultural practices.

Many studies have derived diagnostic psychometric scales to measure and pathologise disorderly behaviour. Young's Internet Addiction Test (1998) is a wellused and modified scale, yet it is problematic as it was derived from the diagnostic criteria for gambling addiction - not germane to the issue in question, as the Internet is a media environment and not a defined activity. A number of studies continue to promote, use and modify the Internet Addiction Test (e.g. Chang & Law, 2008; Montag et al., 2010; Morrison & Gore, 2010; Ni et al., 2009; Spada et al., 2008; Tsitsika et al., 2008; Velezmoro et al., 2010; Widyanto & McMurran, 2004). Others have developed additional quantitative scales such as the Internet Related Problem Scale (Armstrong et al., 2000), the Generalized Problematic Internet Use Scale 2 (Caplan, 2010; Caplan et al., 2009), the Problematic Internet Use Questionnaire (Demetrovics et al., 2008; Thatcher et al., 2008), the Chen Internet Addiction Scale (Ko et al., 2008), the Index of Problematic Online Experiences (Mitchell et al., 2008), the Diagnostic Questionnaire for Internet Addiction (Siomos et al., 2008), the Compulsive Internet Use Scale (Meerkerk et al., 2010), and Internet Abuse (Blau, 2011). It is arguable that the origins on which Young's

IAT was established are still somewhat problematic with the continued use of the test despite its modification. If another term such as 'pathological Internet misuse' is introduced and used yet is still based on Young's original criteria, it is debatable as the connotations of the pathologisation is still occurring. However, as Morahan-Martin (2005) identified, the use of the word 'disorder' is problematic, and perhaps using the phrase 'Internet-enabled pathologies' is more helpful. Using more recently popularized terms such as pathological or Problematic Internet Use suggests "appropriate cautious-ness" (Morahan-Martin, 2005, p. 46). That said, while Problematic Internet Use has established itself as a more sophisticated label, there is still much work to be done because as yet, the predominant literature has examined Problematic Internet Use solely from a quantitative approach.

Currently, no measure of Problematic Internet Use (et al.) sufficiently differentiates the types of Internet activities that are deemed problematic. This assumes that all Internet use is equivalent, however different forms of activity engage people in different communities (real or fictional), and in different ways (through rewards, achievements, a sense of belonging) (Steinkuehler & Williams, 2006). Grohol (1999) notes the problem of confounding factors such as history of relationship problems, mental health problems, lack of social skills and poor self esteem on the predilection to Problematic Internet Use. Two other articles suggest co-morbidity (defined as the simultaneous presence of two or more diseases or disorders) is likely to be evident within the parameters of Problematic Internet Use but claim further research is required (Petersen et al., 2009; Shaw & Black, 2008). They also state that it is currently impossible to recommend evidence-based treatment for Problematic Internet Use.

From a meta-analysis of 30 refereed journal articles published during 2000–2010 about Problematic Internet Use, all used quantitative measures to collate and analyze data, only three studies were completed in Australia (Armstrong et al., 2000; Campbell et al., 2006; Hardie & Tee, 2007), and over half of the studies focused on university students. Only four studies focused on young people, occurring in Greece (Siomos et al, 2008; Tsitsika et al., 2008) and the Netherlands (van der Aa et al., 2009; van Rooij et al., 2010). This meta-analysis highlights the need for qualitative research to be conducted not only with adults but with children and young people.

A contrasting article (Lin et al., 2012) conducted a different type of research surrounding Internet addiction disorder and utilized neuroimaging studies of heavy Internet users' brains. Subjects were selected for the study via Young's Internet Addiction Scale (amongst other inclusion and exclusion criteria), which though it has been revised and modified as stated above, does not seem to recognize the fundamental differences in lifestyle changes between when the Internet Addiction Disorder (IAD) test was published and now. In 1998, most of us did not have a personal computer and we did not depend on electronic communication for work and leisure (especially those outside of the United States); additionally, the access of information was not commonly done via the world wide web. Lin et al. (2012) acknowledged that the standardized diagnostic tools for IAD need to be improved, and conceded that comorbid substance and psychiatric disorders may be present. Additionally, the Chinese context is very different to the Western context specifically in terms of Internet access, technological literacy, and parenting skills. With the 'one child only' mantra in existence, many parents are said to spoil their children and not provide firm guidelines for computer use (especially when the parents are not comfortable with using the computer themselves) (Hong-Kai, 2009).

Methodology of a recent, qualitative study

In 2011, the author conducted a qualitative project in order to understand the manifestation of Problematic Internet Use in order to theorise its pertinence to education and learning. The following research question helped to achieve the overall aim of the project: What do psychologists and counsellors understand to constitute addiction and Problematic Internet Use?

This nascent research explores and documents understandings of the contestable notions surrounding 'addiction', 'obsession', 'Problematic Internet Use', and the accompanying discourses and performances. It was anticipated that a key outcome of this ethnographic influenced research was the progressive theorizing of the multiple realities of Problematic Internet Use (et al.).

Theoretical framework

The theoretical framework that informs this study is shaped by the work of Annemarie Mol. Multiple realities – called ontologies – are the focus of the study rather than epistemology. This is because, "Epistemological normativity is prescriptive: it tells how to know properly. The normativity of ethnographic descriptions is of a different kind. It suggests what must be taken into account when it comes to appreciating practices" (Mol, 2002, p. 6). Mol argues that "*ontology* is not given in the order of things, but that, instead, *ontologies* are brought into being, sustained, or allowed to wither away in common, day-to-day, sociomaterial practices" (Mol, 2002, p. 6, emphasis in original). Mol highlights that ontologies exist in the everyday and inform and are informed by bodies as well as the shape of our technologies (Mol, 2002, p. 7).

Data collection

There were two rounds of data collection. The first round comprised semistructured qualitative interviews with five clinical psychologists/counsellors to explore their understanding and labelling of addiction and to explore their knowledge about Problematic Internet Use. The second round comprised in-depth interviews and observations with adults who deemed themselves heavy Internet users. This article focuses on presenting and discussing the findings from the counsellors' interviews. Participants were obtained via searching for their public listing on the Internet, had at least two years full-time experience in their profession, and were located within a particular rural region within Australia. Informed consent was gained from each participant in accordance with the University's Human Research Ethics Committee guidelines. Participants were sent the list of questions before the interview so they could consider their answers and decide whether or not to answer any particular question. Interviews were transcribed verbatim and participants were able to view, edit and approve the interview transcripts before the content was used in subsequent publication. The individual interviews were conducted at the participant's place of work during July - August, 2011 and took approximately 40-60 minutes. Results are presented in a totally deidentified summary in which no individual can be identified. All participants have been given a pseudonym. No demographic details other than their gender are detailed.

Data analysis

Data was analysed according to the research questions that informed the study. A content analysis of the interviews was conducted according to the questions asked during the interview. They were as follows:

- 1. How do you understand and explain addiction?
- 2. In which ways have you seen this performed? Please give examples.
- 3. What is your understanding of Problematic Internet Use (PIU), formerly known as Internet addiction?
- 4. Some scholars are arguing for PIU to be included in the *American Psychiatric Association Diagnostic and Statistical Manual of Mental Disorders 5* (APA DSM) while others are strongly against it. What is your opinion and perspective on this issue?
- 5. Have you had clients who you believe have been suffering from PIU or something similar? If so, what diagnosis or treatment and counseling did you provide for them?
- 6. How would you describe PIU compared to notions of obsession, compulsion and over-use?
- 7. What do you believe facilitates or enables heavy Internet use to be detrimental?
- 8. What do you believe facilitates or enables people to be obsessed or addicted to the Internet?

These questions were asked in order deemed to help answer the overall, exploratory research question of "What do psychologists and counsellors understand to constitute addiction and Problematic Internet Use?"

FINDINGS

The demographics of the five participants in the first round of data collection within this 2011 study are presented in Table 1.

Table 1Participants' Demographic Details

| Name | Gender |
|----------|--------|
| Kelly | Female |
| Stefan | Male |
| Kristy | Female |
| Margaret | Female |
| Tony | Male |

When asked, 'what is addiction?' the participants responded in multiple ways. Kelly's statement focused on behaviour:

Addiction is an inability to control a specific, a certain behaviour, that inability to even acknowledge that the behaviour has gotten out of control. It can be physical; psychological as well. It could be illogical yeah, but sometimes it stems from a pattern like behaviour.

This is in contrast to Stefan's response which focused on the word 'habit' and being productive:

Addiction is a habit that helps them to avoid conflict, in a positive psychology sense, it's a way of looking at the idea is that it's a low challenge situation that they can develop a reasonable skill around and they can feel that it gives them a reward and a degree of confidence and so the idea is it's serving a function for them but of course it means that they end up avoiding more challenging you know, high skilled kind of things that they have to be doing in their lives such as getting on with a career.

Kristy's response focused on the nuances between addiction and habit:

Addiction is I guess where you can't do without it, you get irritated or restless because you haven't had the opportunity to do it so you're looking for it, for relief. This is more of habitual, like an emotional sort of connection that you fill your time in with and there's something that draws you back there all the time. I tend to treat it as a problematic thing that they can change. Addiction, I guess is more difficult to change so it's a matter of definition I suppose.

This has similarities to the notion of a continuum scale between a habit, obsession, and addiction (Johnson, 2009a) which was reified by Kelly:

I guess maybe it's just an understanding of whatever it is they're doing. I guess there's really no fine line for each person to draw in terms of where a problem did become an addiction. I think the line between obsession with addiction is blurry.

Margaret's statement about addiction focused on the notion of 'compulsion':

Addiction is when you're just absolutely compulsed to do something and it doesn't necessarily have to be a job based thing, it can be a behaviour. I think it's about being 'in excess', I think once you get to the point that the 'something' would be identified with them as an addiction, I think it almost implies that there's a problem.

Finally, Tony's answer included multiple aspects, namely, compulsion, habit and behavioural disorder:

Addiction is a compulsion of habit or a behaviour. It is a behavioural disorder, oh well you know its got its cognitive components and I guess it's a belief that you need to be able to do something to feel satisfied, to feel complete.

As can be seen, the understandings and descriptions of addiction as an overall concept are varied. Many of them commented on the rewards and benefits evident in the behaviour, which the users know, like and want to be reinforced, therefore their behaviour or practice continues. The positive reinforcement enables the users to reduce anxiety or threat, avoid challenge and help the person feel temporarily better. The addiction or behaviour serves a purpose that helps the person avoid real life, stress, depression, or social interaction. Kristy posited, "I would say there's an emotional predisposition there already and the Internet is there and it fits in. It gives that person an 'out' from society so they sit there and they're in touch with what's going on but they're not having to actually talk to anyone in real life". An example of this was given by Tony who referred to a father whose son had social problems, but said the father sends 200 emails a day because he doesn't talk to people. Tony called this an "overuse" of the Internet and a "manifestation of his poor social skills", which his son has possibly observed and perhaps taken on himself.

The psychologists stated that few Internet over-users refer themselves to counseling. Stefan stated that, "More often I get other people referring them and when I get self referrals it's often combined with something else like alcoholism, violence, partners leaving them. More often than not, particularly with the adolescents, it's mum referring so it's mum saying, 'Look, you've got to change him; this is not working'". Likewise, Kristy claimed, "Very, very seldom come and say, 'Oh I've got a problem with using the Internet', it's usually something that comes up during the assessment". This lends support to Morahan-Martin's (2005) claim that "it may be more productive at this point to acknowledge coexistence of Internet abuse with other psychopathologies without specifying one as the

cause of the symptom of the other" (p. 42). Margaret highlighted the complex nature of these presented behaviours: "I've seen all sorts of different problematic behaviours that I would classify as addictions, from looking at Internet pornography to gambling to lying to substance abuses to just perpetually you know, being in a state of conflict with your family members or something. That's an addiction too, some people can't live in peace and they like to be in a state of fight and I think that's also an addiction." Of interest to note, Kristy avowed, "There's lots of vulnerable people using the Internet, they're not addicted to it but they're using it in a dysfunctional way so that's problematic."

In terms of what 'problematic behaviours' include, Stefan maintained, "More often than not it's the social interaction issues and it's why it is a problem you know". An example of this is the need to be constantly in contact with others which is immediately reinforced via social networking media and text messaging (on mobile phones). Tony stated,

It's almost like they develop you know, a panic or a stress disorder you know, stress symptoms if they don't get on them [social networking sites or their mobile phones] and answer their friends because they'll lose all their friends and therefore I'll be isolated or neglected or left out or I won't belong and all that sort of stuff. That's one of the things with the adolescents is belonging to a group or whatever and it's now just a circle of friends called the internet family you know, for people like that. I think it's just the rapid reinforcement schedule it's on, you go, "Beep, beep,", and the, "Beep, beep, beep," so it's rapid so it becomes a self reinforcing behaviour and I think that's because you get feedback straight away.

In terms of whether the Internet usage is actually benefiting and rewarding the clients, the counselors ask things similar to what Kristy detailed below:

You would look at why they're using the Internet; what are they looking for; what are the benefits they can see and sometimes they're not really benefits, sometimes it is just a distraction; sometimes you know they might call something a benefit that's really you know a disadvantage. You've got to weigh up – is it really what you think it is?

This aligns with Margaret's thoughts on risk perception:

To me, the Internet is New York City with no police and so I think it allows a certain part of the population – the one's that are not good at managing risk or are more likely to take risk – I think it allows them to behave in ways that push boundaries even further than they would if they thought that they were being watched.

These insights procure a number of possibilities for why Internet misuse or abuse might be occurring.

LIMITATIONS OF A PHYSICAL, MENTAL MODEL

Tony and Margaret each discussed the use of the DSM in their work. Broadly speaking, the use of the DSM of which the field of psychiatry is based, and subsequent labelling is akin with using a physical or medical model of treatment (or understanding). It invokes the sense a diagnosis or consequent label means that the behaviour is not something that can be changed. A disorder or label presents itself as *fait accompli* and so little responsibility is or can (or might) be taken by that person. Clients can use the label as an excuse and consider that their behaviour is unchangeable. So while the presentation and identification of symptoms according to the DSM as a guideline can be helpful, many of the counselors prefer to focus on a behavioural model which focuses on what are the problems, why are they there, and what strategies or procedures can relieve the problems, or assist clients' lives to be improved. They seek to modify and change behaviour according to the provision and maintenance of structures, guidelines and boundaries, rather than offer their clients an excuse for not changing their behaviour and giving up on the possibility of change.

CONCLUSION

This article has reviewed much of the literature in the field of Problematic Internet Use et al and highlighted the predominance of quantitative methodologies which have helped to advance the field, yet this prose has argued and showcased the value of qualitative research that provides insight and illumination in a highly contestable and complicated area. The data provided demonstrates that understandings of addiction are multiple as are understandings of what constitutes problematic use and whether the use of a label as a diagnosis is a helpful way for psychologists to address co-morbid behaviours or asserted problems of social interaction. The field of Internet addiction et al would do well to learn from the fields of alcohol and drug addiction where sophisticated levels of literary analysis, qualitative and ethnographic data collection, and contemporary socio-political theory are used to problematise, question and move the field beyond the imposition of diagnoses and beyond quantifying the existence of criminal activity and harmful health practices (see for e.g., Brook & Stringer, 2005; Keane, 2002; Seear & Fraser, 2010).

The evidence presented in this article – while not generalisable or conclusive – demonstrates the complexity of the multiple realities and multifaceted behaviours that comprise current social use of the Internet and subsequent digital pathologies. The Internet is used as a coping strategy, an avoidance mechanism, a meaningful activity, a way to build esteem, and a way to connect and communicate with others. Rapid reinforcement, perceived reward, meaningful benefits and high levels of access means this use or abuse of the Internet enables complex manifestations of (mis) beliefs and (in)appropriate behaviours. Therein lies the need for further qualitative research that will provide the data we need to understand *why* and *how*, rather than *what*, *who* and *when* according to somebody else's ideas of inappropriate behaviour.

References

- 3 News Online Staff (2012). *Study: Internet addiction is real*. Retrieved from http://www.3news.co.nz/environmentsci/study-internet-addiction-is-real-2012011309#axzz3rZeTTuw3
- Armstrong, L., Phillips, J. G., & Saling, L. L. (2000). Potential determinants of heavier Internet usage. *International Journal of Human-Computer Studies*, 53, 537–550.
- Blau, I. (2011). Application use, online relationship types, self-disclosure, and Internet abuse among children and youth: Implications for education and Internet safety programs. *Journal of Educational Computing Research*, 45(1), 95–116.
- Block, J. J. (2008). Issues for DSM-IV: Internet Addiction. The American Journal of Psychiatry, 165(3), 306–307.
- Brook, H. & Stringer, R. (2005). Users, using, used: A beginner's guide to deconstructing drugs discourse. *International Journal of Drug Policy*, *16*(5), 316–325.
- Campbell, A. J., Cumming, S., & Hughes, I. (2006). Internet Use by the Socially Fearful: Addiction or Therapy? *CyberPsychology & Behavior*, 9(1), 69–81.
- Caplan, S. (2010). Theory and measurement of generalized problematic Internet use: A two-step approach. *Computers in Human Behavior, 26*, 1089–1097.
- Caplan, S., Williams, D., & Yee, N. (2009). Problematic Internet use and psychosocial well-being among MMO players. *Computers in Human Behavior*, 25(6), 1312–1319.
- Demetrovics, Z., Szeredi, B., & Rozsa, S. (2008). The three-factor model of Internet addiction: The development of the problematic Internet use questionnaire. *Behavior Research Methods*, 40(2), 563–574.
- Grohol, J. M. (1999). Too much time online: Internet addiction or healthy social interactions? *CyberPsychology & Behavior*, 2(5), 395–401.
- Hardie, E. & Tee, M. Y. (2007). Excessive Internet Use: The role of personality, loneliness and social support networks in Internet addiction. *Australian Journal of Emerging Technologies and Society*, 5(1), 34–47.
- Harwood, V. (2010). Mobile asylums: Psychopathologisation as a personal, portable psychiatric prison. *Discourse: Studies in the Cultural Politics of Education*, *31*(4), 437–451.
- Heyman, G. M. (2009). *Addiction: A Disorder of Choice*. Cambridge, MA: Harvard University Press.

- Hong-Kai, T. (2009). *Internet addiction* [Interview with Tao Hong-Kai and Nicola F. Johnson. China Radio International, Today on Beyond Beijing]. Retrieved from http://english.cri.cn/7146/2009/08/27/481s511785.htm
- Johnson, N. F. (2011). "No, they're not digital natives and they're not addicted": An essay critiquing contestable labels. *Fast Capitalism*, 8(2). Available at http://www.fastcapitalism.com
- Johnson, N. F. (2009a). *The Multiplicities of Internet Addiction: The Misrecognition of Leisure and Learning*. Aldershot, UK: Ashgate.
- Johnson, N. F. (2009b). Teenage technological experts' views of schooling, *Australian Educational Researcher*, 36(1), 59–72.
- Johnson, N. F. (2009c). The Teenage Expertise Network: The online availability of expertise. *International Journal of Learning*, *16*(5), 211–220.
- Keane, H. (2002). *What's Wrong with Addiction?* Melbourne, VIC: Melbourne University Press.
- Keane, H. & Hamill, K. (2010). Variations in addiction: The molecular and the molar in neuroscience and pain medicine. *BioSocieties*, *5*, 52–69.
- Keane, H., Moore, D., & Fraser, S. (2011). Addiction and dependence: Making realities in the DSM. *Addiction*, *106*(5), 875–877.
- Kim, H.-K. & Davis, K. E. (2009). Toward a comprehensive theory of problematic internet use: Evaluating the role of self-esteem, anxiety, flow, and the self-rated importance of internet activities. Computers in Human Behavior, 25, 490–500.
- Ko, C.-H., Yen, J.-Y., Chen, S.-H., Yang, M.-J., Lin, H.-C., & Yen, C.-F. (2009). Proposed diagnostic criteria and the screening and diagnosing tool of Internet addiction in college students. *Comprehensive Psychiatry*, 50, 378–384.
- Lin, F., Zahou, Y., Du, Y., Qin, L., Zhao, Z., Xu, J., & Lei, H. (2012). Abnormal white matter integrity in adolescents with Internet addiction disorder: A tractbased spatial statistics study. *PLOS ONE*, *7*(1), 1–10.
- Madison, D. S. (2005). *Critical Ethnography: Methods, Ethics, and Performance*. Thousand Oaks, CA: Sage Publications.
- McDougall, B. (2011). Distressed families flood psychiatrists over children dangerously addicted to computer games and the Internet. Retrieved from http:// www.dailytelegraph.com.au/news/distressed-families-flood-psychiatristsover-children-dangerously-addicted-to-computer-games-and-the-internet/ story-e6freuy9-1226207549370
- Meerkerk, G.-J., van den Eijnden, R. J. J. M., Franken, I. H. A., & Garretsen, H. F. L. (2010). Is compulsive Internet use related to sensitivity to reward and punishment, and impulsivity? *Computers in Human Behavior*, *26*, 729–735.
- Mitchell, K. J., Sabina, C., Finkelhor, D., & Wells, M. (2009). Index of problematic online experiences: Item characteristics and correlation with negative symptomatology. *CyberPsychology & Behavior*, *12*(6), 707–711.

- Mol, A. (2002). *The Body Multiple: Ontology in Medical Practice*. Durham, NC: Duke University Press.
- Morahan-Martin, J. (2005). Internet abuse: Addiction? Disorder? Symptom? Alternative explanations? Social Science Computer Review – Deviance and the internet: New challenges for social science, 23(1). Retrieved from http://dl.acm.org/citation.cfm?id=1066551
- Morrison, C. M. & Gore, H. (2010). The relationship between excessive Internet use and depression: A questionnaire-based study of 1,319 young people and adults. *Psychopathology*, *43*, 121–126.
- Ni, X., Yan, H., Chen, S., & Liu, Z. (2009). Factors influencing Internet addiction in a sample of freshmen university students in China. *CyberPsychology & Behavior*, 12(3), 327–330.
- O'Brien, C., Volkow, N., & Li, T.-K. (2006). Editorial: What's in a word? Addiction versus dependence in DSM-V. *The American Journal of Psychiatry*, *163*(5), 764–765.
- Petersen, K. U., Weymann, N., Schelb, Y., Thiel, R., & Thomasius, R. (2009). Pathological Internet use: Epidemiology, diagnostics, co-occurring disorders and treatment. *Fortschritte der Neurologie, Psychiatrie*, 77(5), 263–271.
- Sarup, M. (1993). *An introductory guide to post-structuralism and postmodernism*. New York: Harvester Wheatsheaf.
- Seear, K. & Fraser, S. (2010). Ben Cousins and the 'double life': Exploring citizenship and the voluntarity/compulsivity binary through the experiences of a 'drug addicted' elite athlete. *Critical Public Health*, 20(4), 439–452.
- Shaffer, H. J., Hall, M. N., & Vander Bilt, J. (2000). "Computer addiction": A critical consideration. *American Journal of Orthopsychiatry*. 70(2), 162–217.
- Shaw, M. & Black, D. W. (2008). Internet addiction: Definition, assessment, epidemiology and clinical management. *CNS Drugs*, *22*(5), 353–365.
- Siomos, K. E., Dafouli, E. D., Braimiotis, D. A., Mouzas, O. D., & Angelopoulos, N. V. (2008). Internet addiction among Greek adolescent students. *CyberPsychology & Behavior*, 11(6), 653–657.
- Spada, M. M., Langston, B., Nikcevic, A. V., & Moneta, G. B. (2008). The role of metacognitions in problematic Internet use. *Computers in Human Behavior*, 24(5), 2325–2335.
- Steinkuehler, C. A. & Williams, D. (2006). Where everybody knows your (screen) name: Online games as "Third Places". *Journal of Computer Mediated Communication*, 11(4), 885–909.
- Thatcher, A., Wretschko, G., & Fridjhon, P. (2008). Online flow experiences, problematic Internet use and internet procrastination. *Computers in Human Behavior*, *24*, 2236–2254.
- Tsitsika, A., Critselis, E., Kormas, G., Filippopoulou, A., Tounissidou, D., Freskou, A., Spiliopoulou, T., Louizou, A., Konstantoulaki, E., & Kafetzis, D. (2008). Internet use and misuse: A multivariate regression analysis of the

predictive factors of Internet use among Greek adolescents. *European Journal of Pediatrics*, 168, 655–665.

- van der Aa, N., Overbeek, G., Engels, R. C. M. E., Scholte, R. H. J., Meerkerk, G.-J., & van den Eijnden, R. J. (2009). Daily and compulsive Internet use and well--being in adolescence: A diathesis-stress model based on big five personality traits. *Journal of Youth Adolescence*, *38*, 765–776.
- van Rooij, A., Schoenmakers, T. M., van den Eijnden, R. J. J. M., & van den Mheen, D. (2010). Compulsive Internet use: The role of online gaming and other internet applications. *Journal of Adolescent Health*, 47, 51–57.
- Velezmoro, R., Lacefield, K., & Roberti, J. W. (2010). Perceived stress, sensation seeking, and college students' abuse of the Internet. *Computers in Human Behavior*, 26(6), 1526–1530.
- Widyanto, L. & McMurran, M. (2004). The psychometric properties of the internet addiction test. *CyberPsychology & Behavior*, 7(4), 443–450.
- Yellowlees, P. M. & Marks, S. (2007). Problematic Internet use or Internet addiction? Computers in Human Behavior, 23, 1447–1453.
- Young, K. S. (1998). Caught in the Net: How to Recognize the Signs of Internet Addiction – and a Winning Strategy for Recovery. New York: John Wiley & Sons, Inc.
- Young, K. S. (2004). Internet addiction: A new clinical phenomenon and its consequences. American Behavioral Scientist, 48(4), 402–415.