Editor's Corner

Human Development 2017;60:141–143
DOI: 10.1159/000479842

Human Development

Mobile Technology and Social Media: The "Extensions of Man" in the 21st Century

Daria Kuss

Nottingham Trent University, Nottingham, UK

A prisoner in the United States has recently been released after being jailed for 44 years for attempted murder. Walking around a now very different New York City, the 70-year-old found himself bewildered by the world before him. Watching people talking to themselves with headphones dangling from their ears, he was reminded of CIA agents. People barely paid attention to their surroundings and instead studied their smartphones while crossing the street, engrossed in their own personal bubbles. In 40 years, technology had dramatically changed the way we live and the way we relate to one another.

My research examines the possible negative consequences of Internet use, including social media and gaming. I have explored how psychotherapists from around the world treat individuals who arrive at their treatment centres presenting with technology overuse and addiction. One of the 20 therapists I interviewed told me:

> [My clients] actually believe people want more from them than they actually do. They certainly fear the sort of relentlessness of ongoing messaging … But concurrent with that is an absolute terror of exclusion. [Kuss & Griffiths, 2015]

This interviewee alluded to what is known as the fear of missing out (FOMO): the "pervasive apprehension that others might be having rewarding experiences from which one is absent" [Przybylski, Murayama, DeHaan, & Gladwell, 2013]. FOMO is the pressure to be ubiquitously connected and present in social media environments, switched on 24 h a day, seven days a week, which may be particularly problematic for children, adolescents, and young adults as they have not yet developed sufficient self-control capacities and are more likely to act impulsively [Motti-Stefanidi, 2015]. Social media refer to the Web 2.0 capabilities of producing, sharing, and collaborating on content online (i.e., user-generated content, implying a social element). Social media include a wide range of social applications, such as collaborative projects, weblogs, online communities, social networking sites, virtual game worlds, and virtual

E-Mail karger@karger.com
www.karger.com/hde

Daria Kuss
Nottingham Trent University
50 Shakespeare Street
Nottingham NG1 4FQ (UK)
E-Mail daria.kuss@ntu.ac.uk

social worlds. Social media have become an important pastime activity for many, allowing individuals to connect with one another online irrespective of time and space limitations [Kuss & Griffiths, 2017].

FOMO may lead to the compulsive use of social media, which in turn may develop into an addiction, with individuals experiencing symptoms similar to substance addiction. These symptoms include salience (social media being on your mind constantly), mood modification (using social media to feel better or relaxed), tolerance (needing to spend increasing amounts of time using social media), withdrawal (feeling anxious, irritated, or restless when use is discontinued), conflict (losing control over social media use, and developing problems with people in their environments), relapse (going back to using social media after a period of not using them) [Kuss, Shorter, van Rooij, Griffiths, & Schoenmakers, 2014].

Research on social media addiction is relatively scarce in comparison to that covering gaming addiction. I have previously outlined the usage patterns, motivations, user personalities, and negative consequences of use and potential addiction [Kuss & Griffiths, 2011]. In my research I have shown that social networks are primarily used for social engagement, particularly to maintain real-life relationships. Different people also use social networks in different ways. For instance, extroverts use them for social enhancement, whereas introverts use them for social compensation, suggesting social network use can have distinct relationship benefits for users. On the downside, I found that using social networks may lead to less participation in real-life relationships, as well as lower academic achievement, and relationship problems. Specifically, using social networking sites significantly predicts self-reported Internet addiction scores in samples of Dutch adolescents [Kuss, van Rooij, Shorter, Griffiths, & van de Mheen, 2013] and UK university students [Kuss, Griffiths, & Binder, 2013]. Research using 23,533 Norwegian adults suggests the presence of other mental health problems (such as attention deficit hyperactivity disorder, obsessive-compulsive disorder, anxiety and depression) significantly predicts addictive social media use [Andreassen et al., 2016]. We have also shown that using the popular photo-sharing site Instagram is associated with social networking site addiction and depression in young UK adults more so than the use of Facebook, Twitter, and Snapchat. For example, spending larger amounts of time on Instagram may lead to stronger beliefs that other people lead happier lives. This feeling may be exacerbated when users are connected online to people they do not know personally as Instagram is a platform that allows individuals to follow celebrities and public figures, many of whom lead privileged lives, leading to a correspondence bias and a possibly problematic upward comparison. This may lead to lower self-esteem as the repetitive viewing of other people being "happier" than yourself can contribute to feeling depressed [Donnelly & Kuss, 2016].

Taken together, there is increasing evidence to suggest that excessive social media use can in some cases be associated with a wide variety of behavioural and mental health problems, including academic, professional, and relationship problems, addiction and depression. Moreover, there appear to be differences in problems depending on what kinds of social media platforms are being used, why and how they are being used. We need more research in order to discern how excessive social media use may impact young people from a developmental perspective, particularly in light of their psychosocial maturation. In the present day and age, mobile devices and smartphones have become "extensions of man" ever more so in the 21st century than when the

term was first coined by McLuhan in 1964. Mobile technologies and social media help us connect, but this may come at a cost given their unequivocal impact on our behaviour, thinking, and ways of relating.

References

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*, 252–262.

Donnelly, E., & Kuss, D.J. (2016). Depression among users of social networking sites (SNSs): The role of SNS addiction and increased usage. *Journal of Addiction and Preventive Medicine, 1*, 107.

Kuss, D.J., & Griffiths, M.D. (2011). Online social networking and addiction – A review of the psychological literature. *International Journal of Environmental Research and Public Health, 8*, 3528–3552.

Kuss, D.J., & Griffiths, M.D. (2015). *Internet addiction in psychotherapy*. London: Palgrave.

Kuss, D.J., & Griffiths, M.D. (2017). Social networking sites and addiction: Ten lessons learned. *International Journal of Environmental Research and Public Health*, *14*, 311.

Kuss, D.J., Griffiths, M.D., & Binder, J.F. (2013). Internet addiction in students: Prevalence and risk factors. *Computers in Human Behavior, 29*, 959–966.

Kuss, D.J., Shorter, G.W., van Rooij, A.J., Griffiths, M.D., & Schoenmakers, T. (2014). Assessing Internet addiction using the parsimonious Internet addiction components model – A preliminary study. *International Journal of Mental Health and Addiction, 12,* 351–366.

Kuss, D.J., van Rooij, A., Shorter, G.W., Griffiths, M.D., & van de Mheen, D. (2013). Internet addiction in adolescents: Prevalence and risk factors. *Computers in Human Behavior, 29*, 1987–1996.

McLuhan, M. (1964/1994). *Understanding media: The extensions of man*. Cambridge, MA: MIT Press.

Motti-Stefanidi, F. (2015). Identity development in the context of the risk and resilience framework. In K.C. McLean & M. Syed (Eds.), *The Oxford handbook of identity development* (pp. 472–489). Oxford: Oxford University Press.

Przybylski, A.K., Murayama, K., DeHaan, C.R., & Gladwell, V. (2013). Motivational, emotional, and behavioral correlates of fear of missing out. *Computers in Human Behavior, 29*, 1841–1848.