


Technology Addictions and Technostress: An Examination of the U.S. and China

Stoney Brooks, Middle Tennessee State University, Murfreesboro, USA

Xuequn Wang, Murdoch University, Perth, Australia

 <https://orcid.org/0000-0002-1557-8265>

Christoph Schneider, City University of Hong Kong, Kowloon Tong, Hong Kong

ABSTRACT

In today's technology-centric world, people are becoming increasingly dependent on the Internet. The most common use of the Internet is through social media, which is used to communicate, share, collaborate, and connect. However, continued usage of a hedonic system can be linked with compulsion or addiction. Since problematic usage/behaviors can lead to negative outcomes, this study aims to determine differential effects of Internet and social media addictions on social media-related technostress. This is examined in two different cultures: The U.S. and China. The results support the association between the Internet and social media addictions with increases in social media-related technostress. Additionally, these effects are moderated by culture. Implications for research and practice are discussed along with future directions for this stream.

KEYWORDS

Addiction, Cross-Cultural, Internet Addiction, Social Media, Technostress

1. INTRODUCTION

In today's technology-centric world, people are becoming increasingly dependent on the internet for their jobs, their information needs, and their entertainment. By 2016, the United States had a broadband internet penetration of 73%, a number expected to increase even further (Pew Research Center, 2017a). Additionally, the overall trend is toward spending ever-increasing amounts of time on the internet. By 2013, it was estimated that the average U.S. internet user spent at least 2 hours per day using the internet (Laudon & Traver, 2014).

The usage of social media has become one of the most popular activities on the internet (Socialnomics.net, 2012). In 2016, 69% of online adults in the U.S. were social media users (Pew Research Center, 2017b). As of 2018, Facebook alone had over 2.23 billion monthly active users (Facebook, 2018). On average, 27% of time spent using the internet is with social media, more than for (non-social media) entertainment, email, and news combined (Tatham, 2013). Yet, despite (or because) of its widespread use, social media has given rise to various negative effects. In particular, social media has been associated with various 'dark side' phenomena, such as addictive behaviour (Kuss & Griffiths, 2011; Patterson, 2012), negative emotional states such as depression (e.g., Brooks & Longstreet, 2015), and reduced performance (Brooks, 2015). While past research has provided a foundation for understanding this phenomenon, it is not understood if the findings are globally generalizable or if the effects of social media use differ across cultures.

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In this paper, we aim to examine differential effects of internet and social media addictions on social media-related technostress. Further, given the differences between cultures (Hofstede, 2001), we investigate the influence of culture in these relationships. To the best of our knowledge, no other study has investigated the links between internet and social media addiction to technostress using culture as a lens for examination. Drawing on the Cognitive-Behavioural Model of Pathological Internet Use (Davis, 2001) and focusing on the cultural dimension of individualism (Hofstede, 2001), we develop a model of internet and social media addiction and test the model using participants from the United States (a highly individualistic culture – Hofstede cultural score of 91) and China (a highly collectivistic culture – Hofstede cultural score of 20).

In the following, we will provide a brief overview of internet and social media addictions and technostress. Then, we will present the hypotheses that form our research model. Afterwards, we present the methodology and analysis before discussing the results, implications for theory and practice, and future directions for this stream of research.

2. LITERATURE REVIEW

2.1. Internet and Social Media Addiction

In many cases, using information systems (IS) can be as intrinsically rewarding as taking substances, and can hence be addictive (Han et al., 2010, 2011). In the field of psychiatry, internet addiction has been recognized as a mental disorder that could potentially affect millions of users. Internet addiction is being put forth by many for inclusion in the Diagnostic Statistical Manual (e.g., Block, 2008; Young, 1998). Reports have placed the percentage of the internet-using population at risk of internet addiction between 6% and 18.5% in the US and Europe (Young, 2011). China was the first country to officially recognize internet addiction disorder, and along with South Korea, supports education, research, and treatment (Block, 2008), and has even built numerous treatment facilities. Internet addiction is the state where use of the internet becomes compulsive; the user starts to develop a dependence on the internet for their psychological well-being, and the user experiences unpleasant feelings when deprived of the internet. This creates a state where the user feels that he or she needs the internet to function in their daily lives, a state sometimes referred to as ‘pathological Internet usage’ (PIU; Davis, 2001)¹.

The Cognitive-Behavioural Model of Pathological Internet Use explains how internet usage can become pathological internet usage for a subset of all internet users (Davis, 2001). For this subset, PIU can be classified as either generalized (involving the internet as a whole) or specific (involving a subset of specific activities on the internet). For both forms of PIU, behavioural symptoms will manifest, recursively influencing the maladaptive cognitions that helped to form the PIU. These behavioural symptoms are often investigated as cognitive symptoms, but emotional effects can result as well (Davis, 2001). In this paper, we investigate both the general PIU and a specific PIU—that of social media. In particular, social media is examined due to its widespread use and potentially addictive qualities. By investigating a specific platform within the internet, a deeper understanding of the factors underlying PIU can be gained. For example, social media is a primarily hedonic technology that users voluntarily use in the pursuit of enjoyment (van der Heijden, 2004). However, many uses of the internet are utilitarian rather than hedonic, and users do not gain enjoyment from their usage. Paying bills, reviewing literature, and examining the weather forecast may all be utilitarian uses of the internet, and would likely have different effects.

Given the ubiquitous nature of internet technologies in the modern environment, social media addiction—a subset of internet addiction—has become especially prevalent. Individuals are using various internet-connected devices to check for status updates, friend requests, news feed updates, and much more. Often, the user is performing these actions in pursuit of diversion, self-presentation, and relationship building, pursuits that have been shown to be positively related with social media

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