



Full length article

Media multitasking and well-being of university students

Shan Xu ^{a,*}, Zheng (Joyce) Wang ^a, Prabu David ^b^a School of Communication, The Ohio State University, Columbus, OH, USA^b College of Communication Arts and Sciences, The Michigan State University, East Lansing, MI, USA

ARTICLE INFO

Article history:

Received 12 June 2015

Received in revised form

12 August 2015

Accepted 24 August 2015

Available online 26 September 2015

Keywords:

Multitasking

Well-being

Motivation

Synchronicity

Social success

Self-control

ABSTRACT

This study examines the impact of media multitasking behaviors on university students' social and psychological well-being (indicated by social success, normalcy, and self-control measures). To address inconsistent findings in recent literature, we characterized media multitasking behaviors by motivations, characteristics, and contexts. In particular, we examined the motivation of the primary task and the synchronicity of the task when social interactions were involved. Synchronous social interactions were found to be significantly and positively associated with social success, normalcy, and self-control. However, as predicted, media multitasking during synchronous social interactions was associated with lower social success. Further, although increased media multitasking during cognitive activities was linked with decreased self-control, media multitasking during entertainment activities was correlated with increased social success, normalcy, and self-control.

© 2015 Elsevier Ltd. All rights reserved.

1. Introduction

Media saturation and convergent technologies have made media multitasking a way of life for many. In the U.S., a majority of teenagers multitask “most” or “some” of the time when listening to music (73% of respondents), watching TV (68%), using a computer (66%), and reading (53%; Rideout, Foehr, & Roberts, 2010). In the UK, on average, 16- to 24-year-olds use media for 9.5 h a day, of which 52% involves media multitasking (Ofcom & GfK, 2010). Given its prevalence, media multitasking has drawn considerable interest from researchers.

Existing research on media multitasking has focused primarily on its increasing popularity and detrimental effects on cognitive performance and functions, but recently, its relationship with social and psychological well-being has gained attention (e.g., Pea et al., 2012; Shih, 2013). Potential negative consequences of media multitasking on well-being have been documented. For example, research has found that among children, it negatively correlates with the feeling of normalcy and capabilities to develop intimate relationship with friends (Pea et al., 2012), and it has been associated with the symptoms of depression and social anxiety in adults (Becker, Alzahabi, & Hopwood, 2012). Findings, however, have been

inconsistent. For example, Shih (2013) found no significant correlation between media multitasking and a range of psychosocial well-being factors, including emotional positivity, sociability, and impulsivity. In other studies, even positive effects of media multitasking on well-being have been suggested. For example, interacting with family members while viewing television enhanced children's prosocial behavior (St. Peters, Huston, & Wright, 1989), and media multitasking was positively correlated with university students' emotional satisfaction, albeit at the cost of cognitive performance (Wang & Tchernev, 2012).

Then, is media multitasking harmful, harmless, or beneficial to social and psychological well-being? Before addressing this question, we propose to further specify the concept of “media multitasking”; we suspect that one reason for inconsistent findings in the literature is the definition of “media multitasking”. In recent literature, media multitasking refers to the simultaneous pursuit of two or more relatively independent tasks, with at least one of the tasks involving media (e.g., Jeong & Fishbein, 2007; Sanbonmatsu, Strayer, Medeiros-Ward, & Watson, 2013). This broad and practical definition is invoked in everyday conversations, news coverage, and research. Its breadth, however, makes comparing findings across studies a challenge because it encompasses a plethora of diverse behaviors. This may obscure critical differences in contexts and characteristics of media multitasking behaviors in well-being research.

For example, both listening to music while studying and listening to music while talking face-to-face with people are

* Corresponding author.

E-mail addresses: xu.1724@osu.edu (S. Xu), wang.1243@osu.edu (Z. Wang), pdavid@msu.edu (P. David).

considered “media multitasking”, although these two behaviors manifest distinct intentions. On the one hand, individuals who listen to music while studying do so to make studying fun without too much distraction, and it is one of the most popular multitasking behaviors among university students (David, Kim, Brickman, Ran, & Curtis, 2014). On the other hand, listening to music during a face-to-face conversation is not common and is likely to be viewed as discourteous; it may suggest avoidance of social interaction. Hence, it is possible that frequent multitasking during face-to-face communication could be negatively associated with social relationships and well-being in the long run, but we may not easily draw the same conclusion for multitasking during study. However, existing research on the relationship between media multitasking and well-being relies on the popular media multitasking index¹ (Ophir, Nass, & Wagner, 2009) to gauge media multitasking behavior. This index, although valuable for assessing general media multitasking tendencies, aggregates a variety of media multitasking activities, making it impossible to distinguish the impacts of these different activities on well-being.

Two important criteria to differentiate media multitasking behaviors are motivations and resources demands. There is growing evidence that different goals motivate different media multitasking behaviors, which have different impacts on gratifying these goals (Hwang, Kim, & Jeong, 2014; Wang & Tchernev, 2012; Zhang & Zhang, 2012). Furthermore, based on the psychological literature, eleven cognitive dimensions of media multitasking behaviors (e.g., relevance of the tasks, modalities of the tasks, behavioral responses required by the tasks) have been identified as making some media multitasking behaviors more resource intensive than others and, thus, impacting behavioral outcomes and choices differently (Wang, Irwin, Cooper, & Srivastava, 2015). Based on Wang et al.'s cognitive dimensional framework, it is easy to see why, despite the overwhelming number of studies showing negative consequences of media multitasking on task performance, some studies have found an increase in task performance, such as when the tasks are highly relevant and executed through non-competing modality channels (e.g., Moreno & Mayer, 1999; Wang et al., 2015). Following these ideas, it seems reasonable to predict that distinct motivations and cognitive characteristics of media multitasking behaviors can impact social and psychological well-being in different ways, leading to divergent findings on their relationships. This is the general issue explored in the current study.

In this study, we compared media multitasking behaviors motivated by different goals and with different cognitive characteristics. Specifically, based on recent portrayals of the communication activities of university students (David et al., 2014; Wang & Tchernev, 2012), we categorize media multitasking behaviors by their primary task motivation (social, cognitive, and entertainment); we also consider synchronicity, an important characteristic

of media multitasking behaviors that determines resource demands (Walther, 1996; Wang et al., 2015).

2. Media multitasking among university students and its motivations

Media multitasking has become increasingly popular thanks to the versatility and accessibility of computers, smartphones, and tablets, which allow for the seamless integration of work, play, and social interaction (e.g., Carrier, Cheever, Rosen, Benitez, & Chang, 2009; David et al., 2014; Rosen, Mark Carrier, & Cheever, 2013; Srivastava, 2013). A recent investigation in the U.S. (David et al., 2014) revealed the major communication and media activities of undergraduate students on a typical day based upon self-report of 992 respondents. In this study, estimates of time spent on communication and media reached 39 h a day. Such an overestimation can be—at least partially—attributed to multitasking.

Media multitasking has been examined mainly for its negative impact on cognitive performance and functions, such as academic performance (e.g., Junco, 2012; Junco & Cotten, 2012; Wood et al., 2012). However, entertainment and social functions of media use and media multitasking are also important (Hwang et al., 2014; Wang & Tchernev, 2012). In a longitudinal experience-sampling study on university students' daily activities over a month, Wang and Tchernev (2012) found that students sacrificed performance on cognitive tasks for emotional and entertainment gains by engaging in media multitasking activities. More specifically, despite students' stated cognitive motivation, emotional and entertainment needs were gratified by media multitasking although they were not consciously sought after.

The diverse motivations and functions of media multitasking behaviors point to the importance of the context in which media multitasking occurs. When listening to music for relaxation or entertainment, responding to a text message may have no consequences. However, if the motivation for listening to music were to learn the lyrics of the songs (i.e., cognitive motivation), texting during listening would interfere with learning. In this example, the impact of the same media multitasking behavior changes when the motivation of the primary task changes.

In line with previous studies on university students' time spent on communication and media activities (Calderwood, Ackerman, & Conklin, 2014; David et al., 2014; Wang & Tchernev, 2012), this study identifies three communication contexts of media multitasking: (1) social-interaction activities driven by social needs, which are comprised of face-to-face communication, phone and video chat, texting, and social networking; (2) media-based entertainment activities driven by relaxation, emotional, and entertainment needs, including listening to music, watching TV or videos online, and playing video games; and (3) cognitive activities motivated by cognitive needs, mainly reading and studying (in our sample of university students).

3. Resource characteristics of media multitasking behaviors

Another important way to specify media multitasking behaviors is to take into consideration the resource demands of the tasks. Based on psychological theories and findings on limited resources and resource allocation (Lang, 2000; Salvucci & Taatgen, 2008; Wickens, 2002), media multitasking has been conceptualized as a multidimensional behavior, with the dimensions of tasks requiring and attracting different types and amounts of resources (Wang et al., 2015). For example, multitasking activities with lower levels of modality sharing and higher levels of control over information flows (e.g., listening to music from a playlist while doing homework) are less demanding than those that compete for the

¹ The media multitasking index was developed by Ophir et al. (2009) and adapted by Pea et al. (2012) to define the level of media multitasking. This measure includes 8 different media forms: (1) watching video content (TV, YouTube, movies, etc.); (2) playing video games; (3) listening to music; (4) reading or doing homework; (5) e-mailing or sending messages/posting on SNS (not including Facebook chat); (6) texting or instant messaging (including Facebook chat); (7) talking on the phone or video chatting; and (8) participating in face-to-face conversations. For each media-use category, respondents reported the total number of hours per week they spend engaging in it. The question was followed by a multiple-choice scale with options that were assigned numerical values for analysis: *never* (0), *less than 1 h* (.5), *about 1 to 2 h* (1.5), *about 2 to 3 h* (2.5), *about 3 to 4 h* (3.5), or *more than 4 h* (4.5). The media multitasking index is the weighted sum of the number of additional media an individual is using when involved in these eight communication activities. Therefore, the index encompasses a wide range of media multitasking behavior.

Download English Version:

<https://daneshyari.com/en/article/350170>

Download Persian Version:

<https://daneshyari.com/article/350170>

[Daneshyari.com](https://daneshyari.com)