



# Mapping and Auditing Internet Addiction in Technical Education

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## ABSTRACT

The current proliferation of social networking sites (e.g., Facebook), electronic devices (e.g., smartphones and tablets), and the internet has paved the way for a charge in promoting the phenomenon of internet addiction (IA). This paper analyzed and examined the validity and appropriateness of a well-established instrument for measuring IA among technical education students in Ghana, specifically students of Accra Technical University (ATU). Using a quantitative research method involving questionnaires, data collected from 260 (n=260) students in ATU was used to validate the research objectives and also measure the levels of IA among the students. The principal component tool in statistical package for social sciences (SPSS) was employed to analyze the received data. Analytical results of the study showed that a sizeable majority of students in ATU, especially male students, suffer frequent addiction problems due to the use of the internet. Additionally, results of the study showed that IA psychometric constructs in the Western world differ from those in the African context.

## KEYWORDS

Accra Technical University (ATU), Ghana, Internet Addiction (IA), Psychometric Constructs, Technical Education

## 1. INTRODUCTION

Globally, the current increased dependence on Information and Communication Technologies (ICTs) has enhanced personal communication and organization performance as a result of excessive and compulsive technology use (Nath, Chen, Muyingi, & Lubega, 2013). Additionally, the current prevalence and proliferation of the internet has introduced the concepts of information overload and big data in smart communities (Xia, Asabere, Ahmed, Li, & Kong, 2013). Previous research studies have suggested and emphasized that technology addiction, which is defined as “an obsessive pattern of IT/ICT-use behaviors and IT/ICT-seeking that takes place at the expense of other important activities,”

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leads to negative psychological, behavioral and cognitive consequences (Turel, Serenko, & Giles, 2013). Internet Addiction (IA), which is a component of technology addiction, refers to an extreme and uncontrolled need to use the Internet (Nath et al., 2013; Yellowlees & Marks, 2007; Widyanto, Griffiths, & Brunnsden, 2011). IA is found to be prevalent among young adults and has the potential to negatively affect a person's health, effectiveness, happiness and relationships (Nath et al., 2013; Young, 1998a; Yellowlees & Marks, 2007; Widyanto et al., 2011).

Unfortunately, IA often occurs undiagnosed, is difficult to diagnose and is frequently denied by addicts due to the fact that utilization of the Internet is often patronized at work and school (Yellowlees & Marks, 2007; Young, 1998a; Young, 1998b; Young, 1999). The factor involving time spent online has been found to be a strong and positive correlation for IA. Nevertheless, research has shown that time is not the only indicator of problematic use of the internet (Young, 1998a; Young, 1998b; Young, 1999; Widyanto & McMurren, 2004; Griffiths, 2000a; Griffiths, 2000b; Šmahel & Blinka, 2012). In order to corroborate this fact, Widyanto et al. (2011) identified three other underlying factors that collectively define IA. These include (i) mood modification, (ii) psychological/emotional conflict and (iii) time management.

The first factor, mood modification, which is quite troubling, suggests that individuals with IA tend to develop other emotional problems such as moodiness, depression and anxiety in the absence of the Internet (Widyanto et al., 2011). The research finding of Niemz, Griffiths and Banyard (2005) illustrated that IA was linked to lack of social inhibition and low self-esteem. The second factor, psychological/emotional conflict refers to a person's preference of being online rather than other social activities such as spending time with family and friends (Widyanto et al., 2011). The third factor, time management (which is the commonest) shows that individuals with IA choose to spend time online at the cost on neglecting other responsibilities and decreased productivity (Widyanto et al., 2011).

In another study, Whang, Sujin and Chang (2003) examined and analyzed the psychological profiles on Internet addicts and suggested that people who are addicted to the Internet usually try to escape from reality than those who are not addicted. Evidence from (Nath et al., 2013; Widyanto et al., 2011; Whang et al., 2003) confirmed that the impact of the IA goes beyond reduced productivity and has profound implications to the psychological well-being of individuals and stability of social units.

The medical field has offered neurobehavioural support for similarities between IA and substance addictions. The medical community has argued that both addictions emanate from mental conditions such as diminished impulse control, which, in the case of IA, is manifested by obsessive cognitions about the Internet and inability to reduce Internet use (Yellowlees & Marks, 2007). According to Saville, Gisbert, Kopp and Telesco (2010), Internet addicts have been consistently found to be more impulsive than others. Lee, Choi, Shin, Lee, Jung and Kwon (2012) illustrated that users suffering from IA showed levels of trait impulsivity as high as those exhibited by pathological gamblers. This signified that IA should be conceptualized as an impulsive disorder. Additionally, IA as a medium has been found to lead to compulsive consumption and gambling online (Turel et al., 2013; Widyanto et al., 2011).

Usage of the Internet among younger people is considerably higher than other age groups. Among college students, IA has shown positivity in terms their propensity to engage in in-class digital distraction, i.e. using digital devices in class to perform activities that are non-academic or unrelated to the class/course (Fried, 2008; Martin, 2011; Musingi, Nath, Chen, & Lubega, 2012; Dewan, 2014). Several studies have also shown that the use of digital technologies (e.g. smartphones, mobiles phones, PDAs, laptops, tablets etc.) in the classroom has a negative association with course performance (Nath et al., 2013; Xia et al., 2013; Widyanto et al., 2011; Fried, 2008; Musingi et al., 2012). According to Martin (2011), facilitating a business statistics related lecture in a computer equipped classroom has a detrimental and unfavorable effect on student performance. This assertion was corroborated by Wood, Zivcakova, Gentile, Archer, De Pasquale and Nosko (2012) who found out that students not using any digital technologies in the classroom outperformed students who use technology.

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