An Antecedent, Consequences, and Policies View of Cyber Loafing among Students

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As the Internet has brought a lot of benefits to the education environment, the Internet also creates new problems that were not found before such as cyberloafing. Cyberloafing is defined as students' behaviours or tendencies to use the Internet for a personal purpose unrelated to class during class time. In this paper, the researcher will show the demographic areas and the factor that effects on the students to attraction to cyberloafing from the previous studies have been shown consciences of cyberloafing in both of students and universities. Finally, this paper will present some of the strategies and suggestions to control and reduce cyberloafing in the universities. This paper describes cyberloafing among students in a comprehensive way and it will help the researchers, and anyone interested in cyberloafing to get comprehensive descriptions for cyberloafing among students.

Key words: *Cyberloafing, cyberslacking, misuse of the internet.*

Introduction

The Internet has become a very important aspect of our life today and has changed people's lifestyle in ways which were unexpected before; especially in the education environment. Where the Internet is available at universities and schools, and used by employees and students, it offers great possibilities to improve the quality of education (Internetsociety.org, 2017). For instance, learning languages, accessing online journals, doing academic research, obtaining full academic degrees and browsing virtual libraries Internet usage among the students can contribute to educational activities required (Rayan et al., 2016). Today's college students are avid users of technology (Flanigan & Kiewra, 2018). However, the Internet creates some problems that have not have been before such as the cyberbullying, sexting,

hacking, cyberloafing. This research will focus on the cyberloafing phenomenon among the students.

The cyberloafing concept arose in studies of the work environment. Most of the previous studies on cyberloafing focused on previous precedents of cyberloafing in the workplace (Kim, Triana, Chung, & Oh, 2015). There are many terms to express cyberloafing such as personal Internet usage, cyberslacking (Whitty & Carr, 2006) and cyberdeviance (Lee, 2017). The terms and other similar terms are defined as employees use of e-mail or Internet for non-work related purposes during work time. Ugrin, Pearson, and Odom (2008) described cyberloafing as employees spending time on the Internet unproductively.

With the rapid and widespread development of the access to the Internet using laptops, smartphones and tablets, the development of the definition of cyberloafing in modern and changing research continues to be defined as an activity involving the use of smartphones and computers in the workplace for personal activity by employees (Jandaghi, Alvani, Matin, & Fakheri, 2015). After cyberloafing came into the education environment, Kalaycı (2010) described cyberloafing in an educational setting as students' behaviours or tendencies to use the Internet for personal purposes unrelated to class during class time.

Cyberloafing behaviours cause different negative effects on universities, students and the educational environment in general (Gökçearslan, Mumcu, Haşlaman, & Çevik, 2016). Cyberloafing considers a regular occurrence in classrooms throughout the United States of America (USA) (Flanigan & Kiewra, 2018). Between 70% to 90% of college students have regularly texting during the semester (Kornhauser, Paul, & Siedlecki, 2016; McCoy, 2016). Approximately 12 text messages are sent per class (Pettijohn & Frazier, 2015). In addition, there are from 25% to 60% of university students bringing their own laptops to the classroom and spending time reaching up to 60% of the lecture time using laptops for non-class activities (Ragan, Jennings, Massey, & Doolittle, 2014).

Cyberloafing is linked with poor and low outcomes, for instance low classroom performance and Grade Point Average (GPA), because it compels students to perform multiple tasks, reducing time, energy, and attention that could be allocated to learning (Kornhauser et al., 2016; Ravizza, Uitvlugt, & Fenn, 2017; Wu, Mei, & Ugrin, 2018), and it distracts the students' attention and prevents them from focusing on learning (Heflin, Shewmaker, & Nguyen, 2017; Soh & Yeik, 2018). Cyberloafing by the students during the classroom reduces student participation and active participation in learning activities in the classroom (Heflin et al., 2017), which negatively affects students' academic performance by splitting them from classroom learning processes, resulting in more disengaged behaviours (Wu et al., 2018).

In addition, cyberloafing consumes the cognitive resources of students that could have been used for classroom learning, such as many multiple tasks, which were also found to have negative effects on classroom learning and academic achievement (Junco, 2012; Sana & Weston, 2013), and the negative academic effects remain to hold true regardless of students' interest, motivation, and intelligence (Ravizza, Hambrick, & Fenn, 2014; Ravizza et al., 2017). Therefore, if the students do their personal tasks rather than the Internet-based learning tasks they are responsible for, their educational, their learning interactions become incomplete or absent, and this reduces the effectiveness and efficiency of the course (Varol & Yıldırım, 2018).

Conversely, some researchers consider the cyberloafing as benefit active for the employees for taking rest, stress reduction, self-development and refresh their mind for back to work and give a good result for their organisations (Baturay & Toker, 2015; Lim & Chen, 2012). Likewise, cyberloafing may lead to enhancing the environment of education, flexibility, creativity, and increase the innovators (Derin & Gökçe, 2016).

Demographics of Cyber Loafing

Because of the development of technology, cyberloafing is possible regardless of occupation. A lot of studies report that a large number of samples for measurement include cyberloafing (Akbulut et al., 2017, 2016; Gökçearslan, Uluyol, & Şahin, 2018; Lee, 2017; Lepp, Li, Barkley, & Salehi-Esfahani, 2015; Nayak, 2018; Varol & Yıldırım, 2017). One of these studies found that 45% of students reported using the Internet for personal purposes during the class (Varol & Yıldırım, 2017).

Some studies of cyberloafing exploration have been conducted in academic environments using demographics as cyberloafing predictors (Baturay & Toker, 2015; Yılmaz et al., 2015). Baturay and Toker (2015) studied some of the demographics such as grade, gender, level of Internet skills, and use of the Internet. The finding of that studied showed that the relationship between grade, gender, and the experience of the Internet are significantly related to cyberloafing. Similar was reported on a study involving 288 students in the high school at Turkish by Yılmaz et al. (2015), that revealed a significant difference in the degree of cyberloafing in terms of the study departments, use of the Internet frequency, and gender. Some of the previous studies had advanced beyond demographics in order to provide visions deeper into explaining why the students do cyberloafing (Soh & Yeik, 2018). For example, Özcan, Gökçearslan, and Yüksel (2017) examined students' gender with cyberloafing wtih a sample of 287 undergraduate students in one of the public universities. As a result, they reported that male students more likely attracted to cyberloafing than female students. However, recent studies disclose that gender differences may vary consistently with the

characteristics and kinds of cyberloafing activities (Akbulut et al., 2017, 2016; Carbonell, Chamarro, Oberst, Rodrigo, & Prades, 2018).

In addition, the previous studies have found that the Internet skill level effect on the students toward the cyberloafing, with the transition from intermediate to advanced user, who decided to play an important role in cyberloafing (Arabaci, 2017; Baturay & Toker, 2015; Mercado, Giordano, & Dilchert, 2017). Specifically, students with expert and advanced online skills had greater experience than students that have intermediate and novice level skills (Baturay & Toker, 2015). On the other hand, Li, Luo, Zhang, and Sarathy (2017) found there are no significant difference between the experience of using the Internet and cyberloafing.

Antecedent of Cyber Loafing

The previous study investigates many of the factors that influence the cyberloafing such as access to technology, addiction, habit, norm, boredom, and personality traits.

One of the important factors in predicting cyberloafing behaviour is technology access by the students; meaning if the technology is available for students, they can engage in cyberloafing activities (Arabaci, 2017). Students who do not have Internet access out of their school computer or smartphones will not be able to cyberloaf. However, according to Internetworldstats (2019), there are 4.38 billion users of the Internet around the world. Likewise, according to Statista (2018), an estimated 2.71 billion people have smartphones. In addition, a study by Rayan et al. (2016) shows that 96% of university students reported that they use the Internet. Because of this fact, the majority of students have access to using technology at university.

There is another factor that has been identified as a contributing factor to cyberloafing which is the addiction to the Internet has been shown to increase cyberloafing (Keser, Kavuk, & Numanoglu, 2016; Yan & Yang, 2014; Yaşar & Yurdugül, 2013). Yaşar and Yurdugül (2013) found the Internet addiction construct as one of the reasons that lead to cyberloafing activities when the sample was 215 higher education students. In another study by Keser et al. (2016), it was found that the male Internet addiction level was higher than female.

A study by Huma et al. (2017) showed that habits directly affect behaviour cyberloafing of individuals. If the habit is higher in an individual, it is associated positively with a higher level of cyberloafing (Soh & Yeik, 2018). The same study found when cyberloafing is a habit formed, cyberloafing is routinely performed without conscious effort and consideration of its effects, when he collected the data from 238 university students.

A study by Soh and Yeik (2018) investigated the relationship between the norm and cyberloafing in the education setting among 238 university students, and the result have

shown higher levels of prescriptive norms will positively correlate with higher levels of students' intention to cyberloafing during class. In addition, higher levels of descriptive norms will positively correlate with higher levels of students' intention to cyberloafing in the class (Soh & Yeik, 2018).

Another important factor that leads the students attracted to cyberloafing is boredom (Varol & Yıldırım, 2018). Cyberloafing will prevent students from being bored in the classroom and learning activities (Yılmaz & Yurdugül, 2018). In fact, college students reported they were bored about 50 % to 60% of the time while attending lectures (Pekrun & Garcia, 2014). Therefore, to combat boredom in the classroom, college students often resort to their mobile devices or will be attracted to cyberloafing for stimulation (Pielot, Dingler, Pedro, & Oliver, 2015).

One of the important factors that was studied is the relationship between personality traits and cyberloafing behaviour. Several studies found that there is a relationship between personality traits and cyberloafing (Jia, Jia, & Karau, 2013; Lepp et al., 2015; Varghese & Barber, 2017; Yan & Yang, 2014). Recent studies have shown that personality traits of agreeableness have negatively related to cyberloafing (Andreassen, Torsheim, & Pallesen, 2014; H. Jia et al., 2013; Varghese & Barber, 2017). Likewise, some of the studies presented they are negatively related between conscientiousness and cyberloafing (Andreassen et al., 2014; Kim et al., 2015; Varghese & Barber, 2017).

On the other hand, some studies examine the relationship between openness and cyberloafing, and they found the openness has positively related with cyberloafing (Jia et al., 2013; R. Jia & Jia, 2015). Similarly, the traits extraversion and neuroticism have been positively related to cyberloafing (Andreassen et al., 2014; Varghese & Barber, 2017). The need to be in socially stimulating environments may encourage them to search for social networking sites or other online entertainment resources by cyberloafing (Varghese & Barber, 2017).

Consequences of Cyberloafing

The previous studies have not focused on the consequences of cyberloafing as they focused on factors that affect cyberloafing and it is less common (Jandaghi et al., 2015). Cyberloafing is associated with poor low outcomes, such as low classroom performance and GPA, because it compels students to perform multiple tasks, reducing time, energy, and attention that could be allocated to learning (Kornhauser et al., 2016; Ravizza et al., 2017; Wu et al., 2018); it also distracts the students' attention and prevents them from focusing on learning (Heflin et al., 2017; Soh & Yeik, 2018). Cyberloafing by students during class reduces student participation and active participation in learning activities in the classroom (Heflin et al.,

2017), which negatively affects students' academic performance by splitting them from classroom learning processes, resulting in more disengaged behaviours (Wu et al., 2018).

Cyberloafing has negatively influenced students' academic performance by distracting them from learning processes in the classroom, leading to more uncooperative behaviour (Soh & Yeik, 2018; Wu et al., 2018). A study by McCoy (2016) found that student use rose to an average of 11.43 times in a typical school day, resulting in 20.9% of students' time being distracted by a digital device. In this previous study, respondents said that this behaviour may cause a distraction that could damage their class performance.

Research has shown that excessive or overexploitation use of ICT, in general, leads to reduced student participation (Oberst, Wegmann, Stodt, Brand, & Chamarro, 2017), burnout, and depressive symptoms (Brooks, 2015). This, in turn, reduces academic performance (Yılmaz et al., 2015). This means that excessive handling of cyberloafing by students is negatively correlated with their academic performance (Wu et al., 2018).

Cyberloafing has a significantly negative relationship with GPA (Wu et al., 2018). Cyberloafing may reduce the student GPA, when the student spends a long time during class using the technology for personal purposes it will effect the student focus and they may get misunderstood from the subject and this will effect the student GPA. According to Lepp et al. (2015), who investigated the relationship between using the smartphone during the class with the GPA among 510 undergraduate students, there is a negative relationship which demonstrated that the student who uses the smartphone will get reduced GPA.

Cyberloafing has a negative impact on the education environment as it causes distraction and affects students' attention and ability to focus (Soh & Yeik, 2018). In a study by Taneja et al. (2015), who investigated the effect of cyberloafing on the students' focus during class and have collected data from 274 undergraduate students in public university in the USA, the results of the study show that cyberloafing has a negative relationship with students' focus in class and will reduce students' attention.

Students may lose their attention, interest, self- control, and motivation in the class as a result of popular smartphone applications and their learning processes may be interrupted (Lee, Cho, & Kim, 2015). In addition, Arabaci (2017) believed that any kind of activity that drives students away from targeted activities during the course such as cyberloafing will disrupt their concentration, motivate them and cause disciplinary problems.

Policies and Anti-Cyber Loafing

Given the negative consequences associated with cyberloafing, college teachers should minimise the impact of cyberloafing on student learning (Flanigan & Kiewra, 2018).

Reducing students' use of mobile technology is standard for many college lecturers (Langmia & Glass, 2014).

Some lecturers told the students to hide their phone during the lectures and told the students about a "no cell phone" policy, however, they realised that way does not work to reduce use of the phone in the classroom and there are some students who keep using the phone after a short period (Langmia & Glass, 2014). Flanigan and Kiewra (2018) suggest that instead of just incorporating a "no cell phone" policy into the curriculum and verbal rebuking students when they do cyberloafing, lecturers must explain how the policy benefits students' learning such as more complete observations, more attention, and higher achievement.

Baker, Lusk, and Neuhauser (2012) found that students and lecturers perceived reduced grades and verbal rebuke as effective strategies to combat cyberloafing during the lectures. Similarly, Berry and Westfall (2015) reported that more than 60% of university students would be less likely to use a phone during a lecture if they saw a colleague in the class being reprimanded (for example, verbal warning) or punished (for example, grade reduction or phone confiscation) because of cyberloafing.

The main reason that leads students to cyberloafing is boredom (Kornhauser et al., 2016; Ravizza et al., 2017; Varol & Yıldırım, 2018). In fact, the students in universities reported that they were bored about 50-60% of the time while attending lectures (Pekrun & Linnenbrink-Garcia, 2014). Students resort to values of cyberloafing to minimise boredom within the lecture (Langmia & Glass, 2014; Lepp et al., 2015; McCoy, 2016). If the lecturers give the students direct education, the students will feel bored and they will start looking for something else to entertain them such as cyberloafing (Varol & Yıldırım, 2017). At the same time, students have reported that the active lectures lead to reduced boredom and cyberloafing desires (Flanigan & Babchuk, 2015; McCoy, 2016). Teaching by active practices such as making small-group work, debates, class discussions, and problem-based activities decrease lecture cyberloafing (Flanigan & Babchuk, 2015).

Many of the students in the universities do not understand the harmful consequences of cyberloafing, providing students a more realistic understanding of multitasking and consequences can help the students adhere to mobile technology policies (Flanigan & Kiewra, 2018). This was the case when university students were informed about the results of research on cyberloafing and asked to link those findings to their own experiences (Flanigan & Kiewra, 2018). This awareness-raising technique has been effective in motivating students to follow course policies against the use of mobile technology in the classroom.

Rather than focusing on ways to reduce the use of laptops and phones during the lecture, also the lecturers can use technology as an educational tool. Lecturers can encourage students to use laptops and phones instead of traditional hand-tapping tools to participate in classroom

polling exercises (Imazeki, 2014). University students enjoy interactive polling platforms and believe they develop classroom learning (Shon & Smith, 2011). Lecturers can encourage students to use technology to search for information during the lecture. Although students use of mobiles to participate in surveys or search for information, can enhance learning and lecture enjoyment, Imazeki (2014) warns that the productive use of technology devices during the lecture may be counterproductive because the presence of handy portable devices increases the temptation and behaviour outside the task.

Conclusion

This conceptual paper attempts to explain the factors that affect the students to attract cyberloafing behaviour during the lecture. As provided, there are some of the consequencse of cyberloafing and the benefits of cyberloafing for both students and universities. In addition, some solutions are suggested that are shown in the previous study.

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