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Smartphone Addiction: Proposing Ethical Codes for Minimizing Addiction Risk at Academic Institutions

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ABSTRACT

Objectives:
The purpose of this paper is to identify some potential sources of ethics which will motivate students to be more committed in guiding themselves on the proper use of Smartphone and in turn reducing the addiction risk.

Method:
This is a perspective paper that has been developed based on the literature review as well as based on opinion of the author.

Findings:
The paper argue that pasting some relevant religious teachings on the wall as an art installation in visible places would be a potential solution for minimizing addiction risk. The limitations and potential for further studies are also delineated at the end of the paper.

Implications:
Findings are useful for educators, policymakers, parents, and practitioners to overcome smartphone addiction risk and thereby improve learning performance. The suggestions presented in this paper from an objective morality point of view will enhance social harmony among the stakeholders within institutions.

Contribution:
Smartphone addiction is a growing phenomenon among students that endangers them from achieving their goals in academic life. Existing literature mostly sheds light on understanding the nature of addiction and its impact on academic performance. However, there is a dearth of research on how to minimize the addiction risk.

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1. Introduction

Smartphone is a pivotal ingredient of the greater information and communication technology (ICT). Prior studies have focused on the benefits and drawbacks of adopting ICT, especially the impact of ICT among the students in academic arena. Many studies have identified a positive association between the use of ICT and the performance of students (Cheung and Huang, 2005; Skryabin et al., 2015). On the contrary, there are several studies which reveal a negative association of between the use of ICT and academic performance (Aljomaa et al. , 2016; Salomon and Kolikant, 2016). Several recent studies reveal Smartphone addiction is a potential risk which may hamper students' academic performance (Hawi and Samaha, 2016; Samaha and Hawi, 2016). At the same time, there is no denying of the fact that Smartphone brings many blessings to our life as well as to the life of the students. This reveals that there are two streams of thoughts on this issue; some researchers advocate for the adoption of Smartphone among students whereas some other researchers are proponents of banning Smartphone among students (Trucano, 2015).

ICT is widely considered as a medium of development (Hilty and Aebischer, 2015; Islam, 2013; Islam, 2015; Thapa and Sæbø, 2014). Since Smartphone is an important component of ICT, it is often argued not to deter students from using it.   The notion is that the students will gain from the benefits of Smartphone if they can use it for their academic purposes (Chang et al. , 2014). Hence, focus should be given to the proper use of Smartphone. However, it is difficult to monitor and control students' behavior under autonomous environment. Similarly, it is challenging task to guide students to the proper use of Smartphone as there are certain contents of the Smartphone which are addictive.

In reality human beings have a tendency to follow their basic desires and it is very strong among the young (Diener, 2000; Tolman and Tolman, 2009). Basic desires if set free, may sometimes lead one to go astray through destruction and deception unless the desire is guided by a set of standards or rules. When the students use Smartphone there is an enhanced probability that their use of Smartphone is predominantly guided by their desires. Furthermore, the stakeholders including parents and teachers cannot monitor and manage children's Smartphone usage behavior at all times. This underlines the importance of finding a solution in order to minimize addiction risk and thereby improve academic performance.

In previous literature, several studies identified self-efficacy, or academic self-efficacy as a mediating or moderating factor to boost students' level of commitment towards better academic results (Chang et al., 2014; Zhu et al. , 2011). In contrast, few studies have advocated ethical self-efficacy as another factor to improve performance under autonomous environment (Wang et al. , 2013). Past studies also argue that students use ICT in their academic purpose when they possess strong self-efficacy towards their aim - which is improved academic performance. Whether it is an academic self-efficacy or ethical self-efficacy it has commonality with the classical concept of ethics (Bandura, 2014). Prior studies focus on the assessment of the relationship between ICT, efficacy and performance. However there is a lack of studies on how to build ethics which would help students in minimizing addiction risk. Also research on sources of ethics is scarce in the literature. Therefore, the research question of the study is what are the ethical codes and their sources for minimizing smartphone addiction risk? Thus, the objective of this study is to identify some ethical codes which will inspire and build a strong commitment among the students so that they can guide themselves and overcome addiction risk. Additionally, there is a need to address this issue from the viewpoint of objective morality. The contributions of the paper are manifold: first, the paper proposed some ethical codes which are scarece in the literature. Second, the ethical codes presented in this study based on objective morality point of view and thus it can be applied universally.

2. Literature review

Several of the earlier studies have found a positive relationship between the use of ICT and academic performance of the students (Cheung and Huang, 2005; Jackson et al., 2006; Kulik, 1994; Sosin et al., 2004; Woessmann and Fuchs, 2004).   On the other hand many studies have also found a negative relationship between the use of ICT and academic performance (Aljomaa et al. , 2016; Gökçearslan et al. , 2016; Hawi and Samaha, 2016). Moreover, there are studies which did not find any association between the use of ICT and the performance of the students (Angrist and Lavy, 2002; Banerjee et al. , 2005; Cuban and Kirkpatrick, 1998; Goolsbee and Guryan, 2006; Islam and Fouji, 2010). Zhu et al. (2011) had also suggested that a significant relationship exists between Internet information seeking behavior and academic performance among high school students, subsequently their study concluded that there is a positive relationship between Internet use and academic performance among children. Kim et al. (2014) conducted research using large size sample in Korea and revealed that students who used ICT performed well in the examinations. Additionally, Skryabin et al. (2015) studied the relationship between the use of ICT and learning performance among school students and found that ICT is a strong predictor of the academic performance. In short, there are literature that suggests that the use of ICT has a positive impact on the learning performance of the students. On the other hand those who found negative impact revealed that students did not use the ICT for their academic purpose, instead, they spent most of their time for entertainment purpose, which is addictive in nature.

2.1 Smartphone addiction and academic performance

It is obvious that Smartphone is an essential and powerful element of ICT (Lee et al. , 2014). Recent studies also reveal a growing trend of Smartphone addiction among the students (Haug et al. , 2015; Hawi and Samaha, 2016). Moreover, several studies revealed that this addiction results in poorer academic performance. A testimony of this is the revelations made by Samaha and Hawi (2016). Their study identified a negative relationship between smartphone addiction risk and academic performance of the students. In addition, they found a positive association between Smartphone addiction and stress. Additionally, studies in non academic arena also reveals that the risk of Smartphone addiction is a threat to normal life of human beings in their professional and personal lives (Bian and Leung, 2015). This underlines that Smartphone addiction is an emerging threat to the academic performance of the student.

Several studies have also revealed that social networking, including Facebook, Whatsapp, Instagram etc. (Hong et al. , 2014; Robeson, 2013; SZ et al. , 2011), pornography (Kwon et al. , 2013a), games (Kwon et al. , 2013b) are some of the most common addictive elements on Smartphones. Students have been found engaged with their Smartphones while they are in classroom (Enez Darcin et al. , 2016). However, ICT is generally credited as one of the key development indicators that contribute to better performance (Batchelor et al. , 2003). Thus, there is an ongoing debate whether or not we should ban Smartphones within the academic premises (Trucano, 2015).

Many institutions are planning to ban Smartphone at schools while others have withdrawn the banning after having bitter experience of banning (Trucano, 2015). Thus, there is a lack of consensus whether Smartphone should be banned or not for use within the academic institutions. However, the Internet is widely used in daily life, especially in educational environments. The Smartphone is an easy and user friendly tool which brings the internet in the palm of the students. Therefore, the Smartphone can be a valuable learning and teaching tool when appropriately used. Subsequently, the focus is to be given on the purpose of the use. It remains a constant concern among stakeholders, especially parents and teachers.

2.2 Academic self-efficacy

Since banning is not a solution, we need to find out possible way outs to ensure students' use Smartphone for academic purposes. There are studies which revealed some factors that mediate the relationship between the use of ICT and academic performance. For example, Chen et al. (2014) found that academic self-efficacy mediates the relationship between internet use and academic performance. Moreover, Zhu et al. (2011) also revealed that academic self-efficacy either mediates or moderates the relationship between internet use and academic performance. Thus, both studies advocate enhancing the academic self-efficacy in order to improve academic performance. In addition, Kuo and Hsu (2001) proposes the use of "ethical computer self-efficacy" for identifying people's ethical conduct related to computer use. Wang et al. (2013) identified "ethical self-efficacy" as a mediating factor in online behavior.

The terms academic self-efficacy, ethical self-efficacy or ethical computer self-efficacy have all evolved from the word "self-efficacy". Self-efficacy is the belief of individuals in their ability to successfully perform tasks in a particular domain (Bandura, 1993). Social cognitive theory proposed by Bandura (1986) provides a reliable and comprehensive theoretical framework for self-efficacy, human behavior, social interaction, and psychological well-being (Bandura, 1986; Bandura, 1989; Bandura, 1997). Bandura (2014) argued that social cognitive theory adopts a cognitive interactionist perspective to moral phenomena. Additionally, moral thinking guides people while doing actions as a self-regulatory mechanism (Bandura, 1986). Bowen (2017) maintains that ethics deals with what is morally right and wrong. Therefore, self-efficacy, or academic self-efficacy or ethical self-efficacy; all are directed toward a common concept- ethics. Hence, it is clear that prior studies suggest to develop ethics to face addiction risk and improve academic performance. However, the extant literature failed to address how to develop the ethics and the sources of ethics in this specific context. Moreover, there is a need to elaborate upon the sources of ethics from objective morality point of view to overcome Smartphone addiction and subsequently improve the academic performance.

2.3 Source of ethics – the proposed solution

Harvard University, USA, posted several legal quotations as art installation on the wall of main entrance of Faculty of Law. These legal quotations described as "the words of justice" collected from various sources including religion. One of the religious quotations were collected from the Holy Quran. The following verse of the Holy Quran related to the justice can be found on the wall of the main entrance of the faculty of law.

"O ye who believe! stand out firmly for justice, as witnesses to Allah, even as against yourselves, or your parents, or your kin, and whether it be (against) rich or poor: for Allah can best protect both." (The Quran, Surah An-Nisa 4:135). According to the website (Minow, 2013) of the university they believe that the words on the walls "…affirm the power and irrepressibility of the idea of justice. They give testimony to the endurance of humanity's yearning for fairness and dignity through law. It reflects a hope that the aspirations and ideals expressed here will continue to inspire all who struggle for laws that are just. "Additionally, these words of justice are found to be

powerful language which helps developing moral values among people in authority dealing with justice (Minow, 2013). Moreover, the words on the wall acts as a constant reminder to the students and staffs as it have been pasted in the highly visible area. Garcia-Retamero and Cokely (2014) found that presentation of visual message has an impact on behavior. Therefore, the current study proposes similar approach to minimize the risk of Smartphone addiction among the students.

Ethics refers to the principles of good and bad which guides people while doing certain action. The sources of ethical codes can be derived from religion, culture, philosophy or what a person assumes as good and universal (Skorupski, 1993). This study will focus on religion, particularly Islam, as a potential source of ethics for dealing with the addiction challenge. Since pornography games, and social networking' are major addictive elements. Hence, the study prescribes few Quranic verses as a potential solution to address these phenomenon under autonomous environment. The holy Quran is the revelation from Allah(God) containing powerful languages that changes life of 1.7 billion people ((CIA), 2017). The study proposes following verses to be pasted on the wall with an aim to minimize the addiction risk.

2.3.1 Minimize pornography

The following verses of the Quran prohibits human to abstain from pornography and similar indecent acts. Since, pornography is one of the addictive elements among the students the pasting of these verses may help overcoming this situation.

"Surely Allah (God) enjoins justice, kindness and the doing of good, to kith and kin; and He forbids all that is shameful, indecent, evil, rebellious and oppressive." (Quran 16:90)

"Tell them (O Muhammad): 'My Lord has only forbidden indecent acts, whether overt or hidden...'" (Quran 7:33).

"Say to them (O Muhammad!)? Do not even draw near to things shameful–be they open or secret.... ...? " (Quran 6:151 partial)

"Verily those who love that indecency should spread among the believers deserve a painful chastisement in the world and in the Hereafter. Allah knows, but you do not know." (Quran 24:19)

2.3.2 Minimize time waste

Time is a valuable thing in our life. Wasting time has an adverse consequence in rest of the life. Since students found to spending much of their time in games, social networking and other areas the following verses of the Quran will motivate them to take care of their valuable time.

By (the Token of) Time (through the ages), Verily Man is in loss, Except such as have Faith, and do righteous deeds, and (join together) in the mutual teaching of Truth, and of Patience and Constancy. Qur'an (103:1-3)

"And on the Day when He shall gather (resurrect) them together, (it will be) as if they had not stayed (in the life of this world and graves, etc) but an hour of a day." [Quran 10:45]

Two relevant hadiths would add more impact since these are heart touching and powerful. Hadiths are the sayings, actions, and the silent approval of the Prophet Muhammad (peace and blessings of Allah be upon him).

And the Prophet (peace and blessings of Allah be upon him) said: "Take advantage of five matters before five other matters: life before death, health before sickness, free time before becoming busy, youth before old age, and wealth before poverty." Saheeh al-Jaami', 1077.

The Prophet (peace and blessings of Allah be upon him) said: "There are two blessings which many people do not make the most of and thus lose out: good health and free time." Narrated by al-Bukhaari, 6412.

In the first hadith it emphasize on five things and "youth before old age" is one of five things. The time span of youth life is temporary stage within the lifecycle. Thus, every bit of moment in youth life is meant to do something for future, either here and hereafter. However, the smartphone addiction may ruin the value of youth in the absence of proper time consciousness. In the second hadith it emphasize to make use of free time by doing good deeds.

2.4 The necessity of objective morality

An intriguing query is, who develops these principles? Is it he/she who is doing certain action? Or is there other source of principles? Well, in the literature there is a big and long lasting debate about the objective and subjective morality (Kainz, 1979; Weeden and Sabini, 2007; Yuill et al. , 1996). In most of the cases subjective morality leading to bias, conflict and complexities. Classical concept of ethics claims that ethical codes can be derived from philosophy, culture , religion or what a person believe to be good and universal (Skorupski, 1993). If human being is the source of own ethics there is a potential threat of conflict in the society. For example, one can view certain thing as ethical while others may think it as unethical. Similarly, one can view watching pornography as ethical while other may argue it as unethical (Hald et al. , 2014). Thus, subjective morality leads

to conflict and chaos. This can be explained easily by referring to two examples:

Example 1:

Once I asked my undergraduate students sitting in the class, "How many of you believe that pre marital relationship among boys and girls is acceptable? Please raise hands." I found many hands, mostly boys. Then I asked, "How many of you will allow your younger sister to go with her boyfriend before her marriage? Please raise hands." Nobody raised hands. It is clear that the action which is moral for oneself, in contrary he/she defines this same action as immoral for others. Here, the action is pre-marital relationship. You view this action as moral for yourself but at the same time you think it is immoral for your sister. In this case you may go and beat your sister as well as you can abuse the boyfriend of your sister physically or verbally, because they are doing certain action you consider as immoral. On the other side, you may experience the same fate from the guardian of your girlfriend because you are also doing the same action (pre-marital relationship) thinking it as moral but her guardian thinks it as immoral. It is clear that subjective morality leading to conflict and quarrel within society. Thus, there is a need of absolute truth- that is the pre-marital relationship is either good or bad.

Example 2:

Suppose two students are sharing the same room in a dormitory where one views that pornography is moral while the other one view it as immoral. This subjective morality will hamper their harmony as well as degrade their social relation. Thus, there should be an absolute definition of morality; that is pornography is either good or bad. It is not rational or logical to stand on both the sides.

Therefore, there is an increased discussion on the importance of objective morality in the literature (Margolis, 1979; Smith, 2008).   The central idea of objective morality is that the codes of ethics should come from impartial source and it should be universal. The source should be from most knowledgeable being. Additionally it should come from the being who knows everything about man, life and the universe. Therefore, it is Allah (God), the creator of man and the universe, is the only source of objective morality who can define the absolute truth. Since, the Quran is the revelation from Allah (God). Consequently, the verses in it are absolute truth and represent objective morality for the humanity. It should be worth mentioning here is that some people has a fascination to the science. They believe that science can be a solution for everything. However, science is unable to do anything with the morality. Additionally, science cannot be a basis for judging anything since science itself proved to be untrue and bias in the history of science and is influenced by scientists and researchers' own philosophy (Kuhn, 2012).

3.   Concluding implications and scope for further research

There is an increasing trend of Smartphone addiction among the students. Studies have found that there is a negative association between Smartphone addiction risk and students' academic performance. Thus, there is an emerging debate whether institutions should ban the Smartphone in school or not. However, ICT is considered as an important element of development. Since the Smartphone is an essential part of ICT thus it is suggested not to ban it. Rather, students should be motivated morally so that they can filter the use of Smartphone under autonomous environment.

Previous literature suggests academic self-efficacy and ethical self-efficacy as a mediating or moderating factor between Smartphone use and academic performance. These studies also argue that self-efficacy or morality should be enhanced among the students so that they can emphasize on the use of Smartphone for their academic purpose. Most of the studies focus on the assessment of Smartphone addiction and academic performance. However, there is a lack of studies on how to minimize the Smartphone addiction among the students.

This study focuses on the sources of morality and presents a set of verses from the Quran as a moral code for the enhancement of ethics among the students. The verses from the Quran are the symbol of objective morality since it is revealed from the Allah (God), the All Knowing. The verses presented here address prohibiting some actions which are the potential cause of addictions. The study proposes that the verses should be pasted on the wall in highly visible locations so that students can view and get a continuous reminder of their actions.

Nevertheless, this paper has few limitations. Firstly, this is a perspective paper which presents the opinion of the author on the of ethics codes as a potential solution for minimizing Smartphone addiction. Future studies, can test it empirically to see the effect after installation of these verse as an art work on the walls. Students from other religious groups may not welcome these verses since its source is Islam. However, anyone from objective point of view will find these verses as universal and rational.

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