Cognitive Dissonance of Online Socialization among Tertiary Students

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ABSTRACT
Social networking sites (SNS) are designed to ease online information sharing and enhance information sharing among people, and the sites also relate to socio-cultural, academic, entertainment, educational and business domains. From teaching and learning perspectives, SNS increase comprehension effectiveness and allow faster information accesses. Today, tertiary students’ lives are synonymous with network connectivity. This paper argues that socializing online could affect interpersonal relationship among them. A sufficient cognitive dissonance is required to prevent cyberspace addiction. Hence, the study investigates the extent of SNS that affects academic enhancement among the undergraduates. Their levels of awareness on the potential risks of social networking are also identified. The finding revealed that majority of the respondents found that social networking sites are necessary (especially Facebook). They spent more than half of their daily routine being online. Most of the respondents were also aware of potential risks of SNS. Therefore, self-discipline and self-awareness regarding the risks of social networking sites are crucial to enhance their potential values.

Keywords: Social networking, cognitive dissonance, tertiary students.

1 INTRODUCTION
Online socialization is the connection effort made at social websites via Internet and other mobile devices. The effectiveness of online social connectedness is supported with advancement in communication medium, especially the Internet and mobile devices such as Smartphone, notebook, tab and such. Undeniably, information technology plays an increasingly important role in people’s life and its significant role inevitably has influenced the escalating number of users from all over the world. The popularity of online social networks has created a new world of communication where social networking sites (SNS) have become integrated into daily social lives and routine including the tertiary education students. In Malaysia, the adoption of SNS has increased in the last few years in conjunction with the progress and development of iPad, iPhone and the like, facilitating easy access anytime and anywhere for the search of information (Saodah & Norealyna, 2015).

Despite its escalating popularity, there are complaints among academia that their students pay less attention to the in-class lectures. The students are interrupted by the online ‘alerts’ and updates in their ‘smart’ mobile phones. A market research by GFK Asia (2013) reported high consumer demands for Smartphone and basic features phone in the Southeast Asia region. Increasing mobile phone sales, especially among 7 key markets in the region such as Singapore, Malaysia, Thailand, Indonisia, Vietnam, Cambodia and the Philippines are also reported. Sales increment in 2013 accounted for over 118 million units. Malaysia and Singapore show some penetration levels of Smartphone with more affordable price range of USD100 to USD200. It is believed that teenagers are major contributors to the sales of Smartphone increment.

At the edge of technological expansion, it seems that today’s youths often face social-psychological problem affected by internet and other online socialization activities. Social-psychological problems include: the internet addiction disorder, mental disorder (depression, anxiety, and mood swing), a serious health problem or disability, or a social relationship problem. High intensity of time spent online might interrupt their daily life, works and relationships. Misused source of information through the internet is violated by online games, gambling, cybersex and cyber-relationship addiction, or compulsively surfing in the social networking at the Facebook and other android apps such as Instagram, WhatsApp, Foursquare, Flickr, Tumblr and Twitter.

Milanovic (2015) affirmed that “social networking” is not new – ever since there have been humans, as they constantly look for ways to connect, network, and promote with one another, until SNS has taken new and momentum in the digital age. As a result, many technological risks might occur if youths are not aware of the adverse effects of SNS, as well as not practicing caution when utilizing them. Some of online social networking risks concern include inadvertent disclosure or personal information, damaged reputation due to rumors and gossip, unwanted contact and harassment or stalking,
surveillance-like structures due to backtracking functions, use of personal data by third-parties, and hacking and identity theft (Boyd & Ellison, 2008).

In addition, online addiction among university students affects learning environment where they spend more time checking, updating and communicating in social networking sites rather than completing their academic tasks. Losing focus and low academic performance called the study to investigate the utilization of social networking among undergraduates. The undergraduates’ cognitive dissonance and awareness towards potential risks of social networking were also identified. Thus, underlined by the theory of Cognitive Dissonance, the present study investigated the extent of online socialization (attitudes) which affects students’ SNS utilization (cognition).

II LITERATURE REVIEW

A. Online Connectivity
The internet is perceived as open technological-based sources for information on economic, politic and social-cultural access and sharing. Subrahmanym and Lin (2007) and Subrahmanym and Greenfield (2008) asserted that the internet becomes synonymous with daily social life among adolescents and emerging adults. Even so, high intensity of internet connectivity might cause internet addiction where it causes detrimental outcomes for young people that may require professional intervention (Kuss et al., 2013). Many users might find the Internet to be entertaining, interesting, interactive and satisfactory, but the heavy use of Internet had caused dependency and other psychological intolerance.

Concern over online socializing and psychological issues arise where internet addiction might affect the psycho-socio development and pose physical health threatening risks to the students. In addition, addicts have high tendency to access internet, where being offline, they often face loneliness, depressed mood and compulsivity, be more vulnerable to interpersonal dangers and showing an unusually close feeling for strangers (Whang et. al, 2003). Hence, cognitive consistency is vital to reduce dissonance behaviors affected by SNS addiction. Amerio, Bosotti and Amione (1978) proved that dissonance reduction among children could be achieved with internalized norm of self-awareness.

B. Cognitive Dissonance
The theory of cognitive dissonance (Festinger, 1957) suggested that an inner drive of a person holds the attitude and belief in harmony, and avoid psychological conflict or dissonance. Thus, the psychological difficulty or cognitive dissonance occurs when a person has conflicting attitudes, beliefs or behavior. Feeling of discomfort and disorder might be the impacts of undergraduates’ addiction to online socialization activities. Cognitive dissonance might affect others too, due to the comfort imbalance of beliefs and attitude of a person. For example, the students are aware that addiction to being online (behavior) aggravates further addiction and makes them lose focus on their study and other curricular activities (cognition), but most of them still could not resist being online. Thus, their mental well-being and attitudes may alter due to the external influences within the person. A critical dissonance occurs when a person is being forced to perform an action that is inconsistent with their belief. Hence, a person may show rebellious or other unpleasant behaviors after being notified by the others to reduce or stop the inappropriate cognition. Festinger and Carlsmith (1959) suggested that inappropriate behavior or dissonance can be reduced by re-evaluating the attitude.

Dissonance experiences are unpleasant and may jeopardize interpersonal relationship and other psychosocial conflict (Rotsztein, 2003). Amerio et. al, (1978) and Balakrishnan and Shamim (2013) mentioned that a person or others in-companion are motivated to reduce and eliminate sign of disagreement in order to achieve a mutual consonance. Psychological conflict of dissonance often leads to uncertainty, which entails affirmation (Randles, Inzlicht, Proulx, Tullett and Heine, 2015). Fortunately, with proper monitoring and restraint, socializing online could give more positive impacts such as creating learning community via interactive academic online discussion or e-learning. Consistency between attitudes and behavior is important to ensure maximum use of internet, and other social medium for academic performance enhancement among tertiary education students.

C. Valued Features of Social Networking Sites (SNS)
Boyd and Ellison (2008) defined SNS as ‘web-based services that allow individuals to construct a public or semi-public profile within a bounded system, articulate a list of other users with whom they share a connection and view and traverse their list of connections and those made by others within the system’. In relation to the significance of SNS to students, Cheung and Chiu (2011) affirmed that understanding why students use online social networking sites is crucial for the academic...
community, as this new communication platform exhibits important impact on students’ motivation to learn to produce affective learning, and classroom climate (Mazer, Murphy & Simonds, 2007). Furthermore, social media sites also creates networks or social relationships among students, in which these sites enable any kind of information sharing activities such as sharing interests, business endeavours and current issues (Saodah & Norealyana (2015). Besides, virtual community can generate new ideas through responding and exchanging content, which reinforces dynamic content creation (Quan-Haase & Young, 2010). With regards to Facebook, Balakrishnan and Shamim (2013) claimed that it was the choice among Malaysian students for social networking, psychological benefits, entertainment, self-presentation and skill enhancement.

D. Possible Risks of Social Network Sites (SNS)
There is no doubt that SNS have gained their beneficial values when they are able to widen many people’s horizons. Nonetheless, there have been many risky circumstances as reported by media of SNS users were being bullied and deceived or even cases of group suicide. Federal Communications Commission (2009) shared some of the risks associated with the use of social media such exposure to inappropriate content (offensive language, sexual content, violence or hate speech), harassment, sexual predation, fraud and scams, failure to distinguish between who can and who cannot be trusted when sharing information, compromised privacy and exploitation to exploitative advertising.

Reports by Commonwealth Joint Select Committee on Cyber-Safety (2010) and Internet Society (2012) further informed that the nature, prevalence, implications of and level of risk associated with cyber-safety threats are such as use of children online (cyber-bullying, cyber stalking and harassment), exposure to illegal and inappropriate content, inappropriate social and health behaviours in an online environment (technology addiction, online promotion of anorexia, drug usage, underage drinking and smoking), disclosure of personal information and data theft and breaches of privacy. As such threats and risks are on the rise, SNS users should be able to make full use of SNS by boosting their valued features and preventing their potential risks. Discussed earlier, there are various psycho-social problems and internet threats that might affect students due to the high involvement of SNS (Rotsstein, 2003; Young, 2004; Byrne, Dvorak, Peters, Ray, Howe & Sanchez, 2016).

III METHODOLOGY
Recognising the attitudes and identifying online socialization behaviours among local university undergraduates in Sarawak are the main objectives of the present study. A survey questionnaire was designed to which the items were adapted from the study by Chou (2001) on the internet addiction among Taiwanese college students. Attitudinal elements were measured through the students’ awareness towards SNS risks including: multiple SNS membership, the necessity of SNS in students’ lives, daily frequency in utilising SNS, their preferred SNS, the valued features when utilising SNS and how the respondents set their profiles in SNS accounts, utilizing the five-level Likert scale. The behavioural aspect was also measured through the students’ online social network usage, using two-level Likert scale.

Convenient sampling technique was used to recruit the respondents where they were the students who often assembled (between classes or during lunch hours) at the Students’ Centre of the university. That spot provides free and high-speed e internet connectivity (WiFi), hence making it a popular meeting point among students. 120 students agreed to administer the questionnaire with 33% of response rate. 70 sets of usable questionnaires (with less than 30% of missing values) were used for data analyses. For the purpose of arbitrary enquiry, only frequency analyses were performed to identify the percentages of agreement with the measured items; which will be valuable for future investigation and analyses.

IV FINDINGS AND DISCUSSIONS
In view of demographic details, more than half of the respondents were females (60%); aged between 21 and 23 years old (53.3%). This shows that the young adults can afford to have devices (laptop and Smartphone) for their online socialization activities. In addition, 55.7% of the respondents were in their Diploma studies, while the rest were Degree students. The finding also illustrates lighter academic load among diploma level students which might give them more time to conduct online socialization activities. In a verbal communication between the researchers and 44.2% of degree students, their online socialization involvement was secondary activity.

The following Table 1.0 reports the undergraduates’ networking (SNS) profiles. The respondents’ agreements to the statements are accessed to identify their motivation, involvement and awareness to any socialization risks.
It is not surprising to know that 66.7% of respondents were having multiple SNS account, in which they gained access to various social networking sites such as Facebook, Twitter, MySpace and many other social networking website accounts. This finding is in-line with the study by Zwart, Lindsay, Handerson and Phillips (2011) where most of students at the Victorian High School in Australia admitted that they were active members of few SNS such as Bebo, Tumblr, Twitter, MySpace and Facebook. Particularly, among many types of online socialization sites, Facebook was the most preferred or favourite site (93%) among students. According to Subramaniam (2014), Facebook is the most visited SNS with 10.4 million users, of whom 3.5 million are youths between 18 and 24 years old, i.e., those of studying age. Likewise, Sensis Social Media Report (2015) also reported that Facebook continues to dominate the social media space, capturing 93% of users where they spend an average of eight and a half hours a week on the site.

In dealing with necessity of SNS in daily life, 79.3% of respondents acknowledged the importance of social networking sites in their everyday life. The result reflected the intensity of the respondents who used SNS as a main mode of their communication daily. Updating status, location and activities are considered as routine to ensure their friends and family members are notified. With minimal monthly subscription fees to the network connection, communication through SNS is considered effortless, economical and unlimited to inform and being informed. This result is in line with the result in Debatin et al. (2009) which indicated assimilation of SNS usage into daily routine for most of Victorian middle school students. Notably, 20.7% of the respondents perceived SNS as necessary activities during their spare time.

Consequently, the results have shown 40.0% of the respondents had spent more than 4 hours of their daily routine utilizing the SNS. In average, the undergraduates spent 4 to 8 hours daily (weekdays) for lectures, tutorial or laboratory works. Informal chat between the researchers with the respondents indicated that SNS activities are continued even during lectures, tutorial or laboratory works due the ‘need’ to check the updates ‘and replying the posted messages and information on the SNS. To add, 30.0% of respondents spent between 1 to 2 hours daily on SNS, while 16.7% of respondents utilized between 2 to 3 hours daily over SNS. Nonetheless, 13.3% of respondents claimed that they utilized SNS less than an hour daily. In general, the result shows that a majority of the respondents who had several SNS possessed cognitive dissonance in response to the imbalance of attitude and behavior. The students were aware of the danger of SNS addiction (cognition) but they were unable to avoid the systems (attitude). They realized that they could turn up to be internet addicts, but they were unable to resist its temptation. The result gave further support to the consonance argument by Amerio et. al, (1978) and Rotsztein (2003) on the motivation and cognitive agreement, as well as Randles et al. (2015) on knowledge affirmation.

### Table 1.0. Networking (SNS) Profiles

<table>
<thead>
<tr>
<th>Items</th>
<th>Values</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Member of multiple SNS</td>
<td>Yes</td>
<td>47</td>
</tr>
<tr>
<td>No</td>
<td>23</td>
<td></td>
</tr>
<tr>
<td>SNS a necessity in everyday life</td>
<td>Yes</td>
<td>56</td>
</tr>
<tr>
<td>No</td>
<td>21</td>
<td></td>
</tr>
<tr>
<td>Daily frequency of SNS utilization</td>
<td>&lt; 1 hour</td>
<td>9</td>
</tr>
<tr>
<td>1–2 hours</td>
<td>21</td>
<td></td>
</tr>
<tr>
<td>2–3 hours</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>&gt; 4 hours</td>
<td>28</td>
<td></td>
</tr>
</tbody>
</table>

### Table 2.0. Reasons of Online Socialization Activities (Consonance Behaviours-SNS)

<table>
<thead>
<tr>
<th>Reasons of SNS (Items)</th>
<th>S.D</th>
<th>D</th>
<th>N</th>
<th>A</th>
<th>S.A</th>
</tr>
</thead>
<tbody>
<tr>
<td>To search for information</td>
<td>1.4</td>
<td>8.6</td>
<td>28.6</td>
<td>61.4</td>
<td></td>
</tr>
<tr>
<td>To get information</td>
<td>1.4</td>
<td>12.9</td>
<td>24.3</td>
<td>60</td>
<td></td>
</tr>
<tr>
<td>To keep in touch with friend</td>
<td>4.3</td>
<td>21.4</td>
<td>74.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>To find new friend</td>
<td>1.4</td>
<td>4.3</td>
<td>28.6</td>
<td>64.3</td>
<td></td>
</tr>
<tr>
<td>To share experience</td>
<td>21.4</td>
<td>35.7</td>
<td>42.9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>For education purpose</td>
<td>2.9</td>
<td>13.5</td>
<td>35.7</td>
<td>11.4</td>
<td></td>
</tr>
<tr>
<td>To stay up-to-date</td>
<td>1.4</td>
<td>4.3</td>
<td>21.4</td>
<td>37.1</td>
<td></td>
</tr>
<tr>
<td>For entertainment</td>
<td>2.9</td>
<td>7.1</td>
<td>12.9</td>
<td>77.1</td>
<td></td>
</tr>
<tr>
<td>For gaming purpose</td>
<td>2.9</td>
<td>15.7</td>
<td>15.7</td>
<td>30</td>
<td>35.7</td>
</tr>
</tbody>
</table>

*S.D: Strongly Disagree; D: Disagree; N: Neutral; A: Agree; S.A: Strongly Agree

In searching for the balance of cognitive dissonance among undergraduates, the respondents had given various arguments to the reasons of online socialization. In line with studies by Balakrishnan and Shamim (2013), several motives to SNS are adapted to identify attitudes over SNS. First, 61.4% of respondents strongly agreed to the motives of SNS utilization are for information searching either for academic purposes or general knowledge. Second, 60.0% of respondents strongly agreed that utilization of SNS is to extract relevant information for their academic writing. Third, 74.3% of respondents used SNS to continuously connect with friends. Fourth, SNS is utilized to find new friends (for social networking, support and share interest) as strongly agreed by 64.2%. Additionally, 42.9% of respondents utilized SNS to share experience with the others. The respondents indicated that experiences and information sharing involved jokes, news updates, knowledge findings, general information, feelings and opinions or argument on certain subject matters.

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http://www.kmice.cms.net.my/
Sixth, moderate agreement was found among the undergraduates on the use of SNS for academic or education purposes. The respondents perceived SNS as neutral where they balanced the use between academic and non-academic purposes. Slight portion of the respondents agreed that SNS was beneficial for education purposes with 35.7% of agreement. Notably, it can be generalised that the main reasons of the respondents to utilise SNS were for social communication and interpersonal networking purposes. This result gave further support to a study by Cheung and Chiu (2011) where social presence has the strongest impact on the intention of using Facebook in order to gain instant communication and connection with their friends. Seventh, 37.1% of respondents agreed that the use of SNS was to stay connected or up-to-date with news, information, gossips and other social notification (such as reunion, meetings, discussion or dating). Eighth, majority or 77.1% of respondents strongly agreed that the use of SNS were for entertainment purposes. Some SNS provide easy access and updates to the screen play, especially YouTube and other website of ‘fan club’ to particular celebrities, dramas or movies. Lastly, as youths, 35.7% of respondents strongly agreed that the use of SNS utilization was for gaming purposes. Online gaming or downloading the software to play offline is also the reason of joining online socialization activities.

<table>
<thead>
<tr>
<th>Questions</th>
<th>Values</th>
<th>Fr</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. How do you set your profile in your SNS accounts?</td>
<td>Restricted access</td>
<td>50</td>
<td>71.4</td>
</tr>
<tr>
<td></td>
<td>Open to public</td>
<td>20</td>
<td>28.6</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>70</td>
<td>100</td>
</tr>
<tr>
<td>2. Do you know the potential risk(s) of using SNS?</td>
<td>Yes</td>
<td>55</td>
<td>78.6</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>15</td>
<td>21.4</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>70</td>
<td>100</td>
</tr>
</tbody>
</table>

*Fr: Frequency

The respondents were generally aware of the risks or social violence on the use of SNS where 71.4% of respondents apply some access of restriction on their personal information in the SNS. The respondents created restricted access to the personal profile by using password or allowing only certain ‘friends’ to view their personal information. However, 28.6% of respondents revealed their personal information to public views. This is an example of cognitive dissonance among students on the internet addiction as claimed by Amerio et. al. (1978), Chou and Hsiao (2000), Rotsztei (2003), and Whang et. al, (2003). By reviewing SNS privacy policy, SNS users at least have some knowledge pertaining to data security and information protection. When the students have certain level of awareness, they will take precaution by restricting some personal information access (in their SNS account) and being more selective to choose viewers of their profiles. Consonance or balancing of behavior is revealed from the result, where most of the respondents were aware of SNS risks and their privacy rights. Utilization of online materials gives vital impression that virtual knowledge is the most dependable and affordable source of information among today’s university students. Hence, further issues worth to investigate is the extend on how virtual knowledge can be manageable, reduce dissonance and affirm certainty, as posited by Randles et al. (2015) and Byrne et al. (2016).

In addition to the access restriction, 78.6% of respondents acknowledged the potential risk(s) of using SNS. The SNS risks or violence include: bullying, harassment, identity theft, inappropriate content, privacy issues, information exploitation and so forth. As suggested by McLeod, one of the methods to reduce dissonance is to acquire new information where SNS users need to update their knowledge regarding internet security. However, 21.4% of the respondents were unaware of such risks. Byrne et al. (2016) shows that online exposure, internet threats and related risks create dissonance which depends on the characteristics of individual user. To sum, the findings of this study identify moderate balance between attitude and cognition among undergraduate students with regards to online socialization issues.

V CONCLUSION

The present study comprehends the cognitive dissonance implication on the use of online socialization among tertiary students in Sarawak. As argued by scholars (Subrahmanyan & Lin, 2007; Subrahmanyan & Greenfield, 2008), Balakrishnan & Shamim, 2013 and Randles et al. (2015); the inappropriate use of the internet and SNS affects the cognitive dissonance and might cause psychological disorder (loneliness, salience, loss of control, withdrawal, and relapse and reinstatement). However, the findings of the present study indicate that most of respondents were in control of their attitudes over SNS and possessed sufficient cognition to online socialization risks and dangers. The most significant finding is: the cognitive dissonance among young adults towards SNS is manageable where a balance between the attitude and cognition is achieved. The findings of the present study also give further prop up to the cognitive consistency in social behavior as suggested by Amerio et. al, (1978) and Randles et al. (2015).
Though the internet is perceived as a significant medium of communication and socialization where it offers unlimited opportunities for learning, knowledge, information and other online activities, SNS users need to be aware of their potential risks and threats. The findings of this study provide useful insights on how tertiary students utilized social networking sites as well as their awareness on the possible incorporated risks of SNS; in-line with findings in the study by Byrne et al. (2016). The results also indicated that many of the students were frequent daily users of SNS and they owned more than one account of SNS. Besides, the overwhelming majority preferred Facebook where the most highly valued features of SNS were the abilities to socialize (to stay connected with friends and to acquire new friends) as well as to gain access to information.

Though many of the students practiced a certain degree of caution in utilizing SNS, they should be able to balance their time between social media and studies so that their academic achievements are not affected. As privacy concern is not well understood by many younger SNS users, self-discipline and self-awareness regarding the risks of social networking sites are also vital to enhance the benefits of SNS use and to minimize the negative implications. There are still subjective issues of cognitive dissonance to unwrap and it remains to be among the issues of online socialization. Nonetheless, young people need to be equipped with the necessary knowledge to efficiently manage their SNS accounts and to cope with potential risks associated with everyday use of SNS.

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