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Hugo Martires

Students' engagement in social media in Cambodia

O envolvimento dos alunos no Camboja com as mídias sociais

HUGO MARTIRES*

Abstract

Social media sites are considered one of the most used tools on the Internet nowadays, particularly among the younger generations. The impact of such sites in different areas of society is clearly observed in some more than others, and education is one of these. The purpose of this study is to explore the present reality of Cambodian students and their connection with social media. A survey was carried out with 300 undergraduate students from two universities in Phnom Penh, Cambodia. It was found that students have a strong interaction with social media and the intensity of usage of social network platforms can be associated with different factors. However, regardless of the intensity of use, there is no evidence that it promotes an active participation online. It is suggested to explore further implications in the academic environment.

Keywords: Computer-mediated communication. Country-specific developments. Media in education. Post-secondary education. Social media.

Resumo

Os mídias sociais (ou redes sociais) são considerados uma das ferramentas atualmente mais utilizadas na Internet, em particular junto da geração mais jovem. O impacto dessas plataformas é bem visível em diversas áreas da sociedade, em umas mais do que outras, e a educação não é exceção. O objetivo deste estudo passa por explorar a realidade atual dos alunos no Camboja e a sua relação com as redes sociais. Foi realizado um questionário a 300 alunos pré-graduados de duas universidades em Phnom Penh, capital do Camboja. Os resultados mostram que os alunos têm uma interação intensa

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com os mídias sociais e que a intensidade de utilização das plataformas das redes sociais pode estar associada a diferentes factores. Pese embora a intensidade de utilização, não há evidência de que esta promova uma participação online de forma ativa. Sugere-se futuras investigações que possam explorar outras implicações no contexto académico.

Palavras-chave: Mídia social. Mídia na educação. Comunicação mediada por computador. Países em desenvolvimento. Educação pós-secundária.

Introduction

In the last few years the world has witnessed significant changes in terms of Internet usage, which is perceived to be permanent and will become even more severe with the evolution of technology and the demand from its users. If, in the beginning of the Internet, users were only exchanging emails and browsing web pages, today we see the shaping of new relationships, both formal and informal, through the participation in social network services on the Internet (hereafter SN's or SN in the singular). According to Castells, this is the new social structure of the information age which he calls the network society (1999).

The present societies are involved in a complex transformation process never seen before. This transformation is changing the organization of our environment, the way we work, how we relate with each other and also how we learn (García, 2001). In the past the SN's played a role in such activities as the human rights movement, women's empowerment, and peace movements among others (Capra, 2004). More recently the digital SN's also have been utilized in political activities that often have major impacts on the world. With the new technologies the SN's became one of the most influential phenomenon in society. The network emerged as a new form of organization of the human activity in the current society (Castells, 1996), creating new environments of social interaction which Guedes da Silva defines as "virtual spaces where interaction activities take place among its participants and culminate in the establishment of social relations, forming complex social structures" (2007, p. 5).

The evidence is clear regarding the massive usage of the Internet SN's, in particular among the younger generation (Ofcom, 2008), as will be discussed in this paper. Present research on this topic is discussed in the next section which illustrates much of the debate in the academic community. If someone sees this new paradigm of communication as a threat to education, or harming the academic performance of the students, others, less skeptical, consider it as a potential boost to renovate methodologies and the learning processes. This paper does not aim to advocate for any side, but rather presents some empirical facts about the present reality in Cambodia which may lead to further research and considerations.

Purpose and hypotheses of the study

Taking a sample of university students in Phnom Penh, capital city of Cambodia, this exploratory study will analyze the intensity of SN's usage among higher education students. The research questions examined were:

Q1. How much time do university students use SN's?

Q2. What types of activities do they engage with on SN's?

Q3. With whom do they communicate?

Q4. What are the reasons why students use SN's?

Based on the literature review the following hypotheses were made:

H1. SN promotes an active participation online;

H2a. University students engage with SN's daily;

H2b. University students would use SN's primarily for social interaction;

H3. SN use is determined by who the students are communicating with;

H4a. SN frequent use is positively associated with activities focused on peer interaction;

H4b. SN frequent use is positively associated with motives based on peer interaction.

Literature review on social media

The SN's arose with the Web 2.0 which is based on interactivity and collaboration between users. During Web 1.0 years, the concept was "link to" and the idea was to create web pages and hyperlinks; with Web 2.0, the motto is "join me" where everyone wants to be connected to everyone through the network. In this new concept of the Internet, the users are responsible for creating their own content and establishing communities to build dynamic web pages in replacement of the old static content. Those in the past who were merely passive users now have an active role as content providers. In collaboration with other users they create and edit content forming what Bohn calls a collective intelligence (Bohn, 2009). The young generation, which Prensky describes as the "Digital Native" (2004), is not able to conceive the world without chat, sms or SN's. They were born in an era of digital information and communication with new tools that brought a new form of interaction among individuals which extends, without limit, the social context of a particular individual. This is the present society. If in the past the social context was restrained to the place where one lived or worked, today this context goes beyond geographical borders. In fact, while we are discussing Web 2.0, there is already a new version called Web 3.0, which is based in semantics and gives meaning to the huge quantity of data available on the web (for more on Web 3.0 refer to Hendler, 2009).

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dynamics and information processes that are part of the Internet, Fuchs et al. (2010) identified three qualities of the Web, namely Web 1.0 as a Web of cognition, Web 2.0 as a Web of human communication, and Web 3.0 as a Web of co-operation.

In recent rankings SN's sites like Facebook(2nd), YouTube(3rd) or Twitter(8th) show among the top 10 Web most visited sites, according to reports from alexa.com related to February, 2015. In Cambodia, Facebook ranks at the top of the list, followed by Google.

Cambodia background

In Cambodia there are 5 million Internet users with a penetration rate of 32% in the country's total population. There are 4.2 million active social media users only on Facebook, in which 39% are female users and 61% are male users. The age group between 18-34 years old represents 77% of all users according to a recent report from the Website wearesocial.com (Kemp, 2016). According to the same source, connectivity rates in Cambodia, in terms of mobile connections, are among the highest in the Asia Pacific region with 26 million connections. This represents 166% of the country's population.

The use of social media on mobile phones is very popular in the country. As from 2015, 96.9% of Facebook account holders said they accessed Facebook from their phones (80.5% said they accessed it solely from their phones). Only 3.1% accessed the site solely from a computer. Among the reasons that Facebook was valuable to them were to obtain information about events in Cambodia and to stay in touch with friends. They engaged more often in activities such as looking at photographs, liking or sharing posts and chatting (Phong & Sola, 2015).

Educational applications

Social media on the Internet has been attracting increasing awareness in society. The success of its application is well evident in many areas today and is considered one of the global phenomena of the 21st century (Heidemann, Klier, & Probst, 2012). Despite all of its different applications SN's sites are founded on common key features. However, more interesting than the technology behind the network is the varied emerging cultures around it (Boyd & Ellison, 2008). There is still one crucial application of SN's that was intentionally left out the previous discussion so that we can address it now from two opposite perspectives. Education has always been sensitive to fluctuations from the mainstream praxis that has been around for such a long time. Although the Internet was serving the academic world in the early days and its benefits soon acknowledged by most academics, there is still some ongoing discussion of its real contribution to education over the long term. The SN's as one of Internet's most used applications in the present day is at the epicenter of this discussion. To address this debate, two

different standpoints are presented next.

As a preamble for the discussion, we present a recent study on student media usage patterns in higher education, where Zawacki-Richter et al. (2015) investigated the extent that students used Web 2.0 tools and what usage patterns could be identified on a sample of N=2338 individuals. The findings show that exchange and communication with friends and acquaintances was considered by them, as most important. The SN's are also used for study purposes: 82% stated that they also exchange thoughts and ideas on academic matters. After socializing (77%), learning activities in the university were among the main activities on SN's. These included questions during self-study (76%), exchange of documents and literature (71%) and preparing for exams (66%) as most frequent. From the profiles of media usage patterns identified in the study, entertainment users and advanced users are the ones who reported using SN's for learning more often. These results show that SN's have very widespread use among students and are also used for studying, in the form of learning groups, as well as for interacting with fellow students.

Cons

On the far side of the arguments against, there are some studies on the neurologic impact of Internet and SN's. Carr argues that Internet is compromising the mind in terms of concentration and contemplation and leading our mind to expect to receive information fast as it is distributed over the network (Carr, 2008). Research among South Korean students revealed that an extreme Internet usage can cause permanent or intermittent addiction (Jang, Hwang, & Choi, 2008). Goldberg, cited by Young (1996), was the first to introduce the concept of "Internet Addiction Disorder" after which the research by Young concluded that the addicted individuals spent most of their time on the Internet using chat rooms, the early precursors of SN's. On the consequences of SN's addiction, Turel et al. (2014) found that in groups of 20 Facebook users, technology-related addictions share some neural features with substance and gambling addictions, but they also differ in that they often do not lead to abnormal function of the inhibitory-control brain system, meaning that they can be overcome with cognitive behavioral therapy.

One other aspect that has been catching the eye of education scholars is academic performance. While the modern generation is changing and the educational organizations are slowly evolving, great challenges are ahead. The vast diversity of sources of information and the "so called" capability of multitasking through all of these channels is affecting the academic outcomes. A research on SN's users in the US unveiled that Facebook use carried out simultaneously with other study activities has a negative impact on students' grades and these students spend fewer hours per week studying than nonusers. One interesting fact is that the majority of the Facebook users claimed that they do not feel any impact (Kirschner & Karpinski,

2010). A later study comparing a US sample with a European sample of students exposed that a negative relationship between SN's and grades was moderated by multitasking only in the US sample (Karpinski, Kirschner, Ozer, Mellott, & Ochwo, 2013).

Another popular argument against SN's is that it promotes procrastination of tasks among students. A research lead by Meier et al. (2016) points out that a low self-control associated with habitual enjoyable Facebook checking predicts the use of the SN for procrastination. It also underlines that using Facebook for the irrational delay of important tasks increases students academic stress levels and contributes to the negative well-being effects of Facebook used beyond the academic domain.

A research on student engagement and the academic achievement of first-year university students in Cambodia revealed that student engagement in out-of-class course-related tasks, homework/tasks, and active participation in classroom settings, added significant value to Cambodian student achievement. On the other hand, common to more developed countries, out-of-class peer learning and extensive reading did not make any meaningful impact on student achievement (Heng, 2014a). This leads to the conclusion that certain effects of student engagement on achievement tend to differ in magnitude by students' pre-university academic experience and geographical origin. However there is also strong evidence that faculty behavior, namely their support and feedback to students, is a unique factor with strong and positive influence on students' academic achievement regardless of their pre-university academic experience and geographical origin (Heng, 2014b).

Another aspect of student engagement and its relationship with social media use, Junco (Junco, 2012) analyzed a large sample (N=2368) of college students in the US and found that the frequency of Facebook use is negatively related to engagement. Concerning Facebook activities, the research shows that communicative activities (like commenting and creating) are positively related to student engagement as well as with time spent in co-curricular activities while non-communicative activities (like playing games and checking up on friends) are negatively related to both. In fact, Facebook activities are stronger predictors of student engagement, time spent preparing for class, and time spent in co-curricular activities than time spent on Facebook. These results tell us, however, that SN's use is not determinative of academic outcomes and can indeed be used in such ways that are beneficial for students.

The substantial use of the SN's among university students is evident not only in the West but also in Asia. Regardless of its popularity, it is not noticeable yet if the effective use of social media tools can be used to facilitate teaching and learning according to a recent research in Hong Kong (Au, Lam, & Chan, 2015). The study denotes some barriers behind the phenomenon of SN's like security and privacy risks or the rapid changing of the environment which requires institutions to deploy a new pedagogical

approach, re-evaluating their position as a knowledge provider. The research concludes that with optimal monitoring, motivation and planning, SN's can be beneficial to: institutions, teachers and students in the long run. Picking up on this idea we analyze next some arguments in favor of the use of technology in education.

Pros

On the other side of the argument are those who advocate that technology is a continuously changing force in the modern world. Like it or not we all have to deal with it somehow, directly or indirectly. Experience shows that most of the time, the young generation is more likely to adopt technology than mature adults. They also do it faster than adults. According to some authors there is a pre-destination for technology within the new generation. Beastall (as cited in Kirschner & Karpinski, 2010, p. 1238) states an advanced relationship with technology formed at birth. This fact inevitably changes the way the new generation learns in the digital age (Veen & Vrakking, 2006). If that is so, we cannot ignore what is happening in society but rather try to understand the implications that it represents.

Conversely, to the sometimes popular argument on the dangerous effects of computers in a child's development and socialization, Bassiouny & Hackley (2013) found no evidence that digital media, including video and online games, is harmful itself. In fact, children's integration of technology is most often creative and positive according to the authors. The risk is not in the technology itself but in the context it is used in cultural and family issues. Access to digital media has become an integral part of a child's socialization and its powerful presence cannot be reversed. In line with these findings, Ferguson's (2015) research suggests that the influence of video games on increased aggression, reduced prosocial behavior, reduced academic performance, depressive symptoms, and attention deficit symptoms are minimal.

Sánchez-Rodríguez et al. (2015) did not find problems of addiction nor variation of usual behaviors in students, due to the massive use of social media. However, we should be keep in mind that today's technological trends allow virtually ubiquitous Internet accessibility and so it is easier to get involved in various activities parallel to the study.

Social media technologies were embedded in the academic curriculum as a learning and assessment strategy in a MSc program in the UK. In research carried out by Megele (2015), the author redesigned the online component of the module to incorporate the use of Twitter® and Wiki combined with Moodle. The different platforms selected were meant to support and optimise a dynamic and collaborative social learning environment. The results showed that the redesign was effective in promoting students' participation and active learning as well as introducing the students to social media and personal learning networks as a learning and professional tool. Also, the complementary nature of learning activities and the use of social media

increased the interrelational dimensions of students' learning and improved their online engagement. There are other studies supporting this argument, according to which, the use of Twitter and Facebook can contribute to improve the performance and the engagement of students in their studies (GreGory, GreGory, & Eddy, 2014; Junco, Heiberger, & Loken, 2010).

A nationwide survey on higher education institutions in Malaysia indicated that students use SN's for activities related to informal learning, i.e., to discuss academic work and to arrange group discussions with their peers. Learning is the second ranked activity right after socializing and overall, students perceive a positive effect of SN's in their academic life (Hamat, Embi, & Hassan, 2012). The introduction of a knowledge portal and social media to increase contact time with students lead to a significant improvement in academic performance in a South African college. Students agreed that SN's can be useful for increasing contact time with the learning material, their peers and lecturers (Dzvapatsva, Mitrovic, & Dietrich, 2014).

The impact of SN's in language learning should also be considered. Facebook groups used as a learning management system can enhance effective language learning as concluded in a recent research among Thai students (Tananuraksakul, 2015). The study explored two variables, positive attitude and motivation, that are seen to influence learners' achievement in language learning, and also interdependently influence one another. The outcomes revealed positive impacts of the Facebook group usage on students' attitude towards, and motivation in, learning English because they commonly found relevant learning activities in the Facebook group as regular users of this popular SN platform. It also showed that participation within the group gave them a sense of convenience, they found simplicity and relaxation and reduction of the cultural power distance between the instructor and them.

Despite the literature previously presented, there is still much research ongoing in social media and education. However, there is no present evidence of such studies in Cambodia. With a crumbling educational system left by the Khmer Rouge regime and a long civil war, Cambodians had other issues to resolve before they could consider education. Most of the educated minds in the country were either killed by the Pol Pot regime or fled abroad. The country was drained of scholars for a long period. In the early 1990's, with the help of external donors, the Cambodia educational system began to be put in place, resulting in the rebuilding of schools and training of teachers. The challenges of such a task in a emergent country is enormous and prevailing problems can deter current government policies and outcomes (Tan, 2007). That being said, it is understandable that there is an absence of research in such a particular area like SN's and its connection with the academic environment. It is consensual that Internet and the SN's became part of the everyday life and they are here to stay. As a consequence, the way individuals socialize have changed and while learning is also a social

event, there will be an impact upon it as well. The present study attempts to provide a discussion platform to explore further implications on the impact of SN's in higher education.

Methodology

Participants

This study was carried out in two universities in Phnom Penh, Cambodia. Zaman University (hereafter Zaman) is a private institution founded in 2010 with an international curriculum and international faculty with all the classes taught in English. The Institute of Technology of Cambodia (hereafter ITC) is a public university founded in 1964 and supported through cooperation between Cambodia and the former Soviet Union.

The total respondents (N=300) are undergraduate students who are studying in the above mentioned universities in Cambodia. The sample consisted of 72% male and 28% female students. The students are enrolled in different courses such as Architectural Engineering, Civil Engineering, Business Administration, Banking and Finance, Political Science and International Relations, Management Information Systems, Computer Science and Digital Arts and Design. The students were randomly chosen to participate voluntarily in the study to form a representative sample of the university's population.

Instrument and measures

A quantitative survey was applied throughout the universities. The instrument used was a 20 item questionnaire that consisted of three sections. The first section comprised a demographic profile of the students, where gender and age were collected along with academic information about the course and years of study. The second section consisted of a SN's usage profile where data was collected regarding the student bond with the network in a six-point Likert-type scale. The last section was intended to measure the SN's intensity usage and the students' engagement with the network. This construct, a six-point Likert-like scale, was developed based on previous research that examined the intensity usage of Facebook (Ellison et al., 2007). The option for six points in the scale is to establish two median levels of response and to avoid neutrals. By using this approach, the respondents are required to position themselves either on the positive or negative side of what is being studied, even if they feel comfortable in the neutral zone. The questionnaire was developed after intense research on previous instruments. In addition to the previously mentioned study, others have also contributed to the design of this instrument (Pempek, Yermolayeva, & Calvert 2009; Mazman & Usluel, 2010; Ophus & Abbitt, 2009; and Yang & Brown 2013).

A first version of the instrument was developed based on the theoretical framework of our research. It was then submitted to a panel of eight experts

in education and social sciences for reviewing. After careful revision, it was tested through a pilot project involving 55 students. Finally the instrument was submitted to a factorial analysis and Chronbach's alpha was applied to test for internal consistency, which confirmed the statistical validity of the construct. The factorial structure was acceptable and coincident with the theoretical framework. The pilot also allowed a first contact of the respondents with the instrument and the researcher, who made some observations and collected some suggestions from the students. This contributed to the improvement of the questionnaire. The analysis of the structure and wording of the instrument held after the pilot, together with the feedback from the students, has improved some parts of the instrument, which initially seemed completed.

After the pilot questionnaire, the revised questionnaire was administered with two different approaches. First, was an online questionnaire platform, LimeSurvey. After that, in order to reach more students it was administered in the classrooms in paper format. The questionnaire was anonymous. The answers were private and confidential, collected only by the researcher who analyzed the results.

Chronbach's alpha was applied to estimate the internal consistency of the instrument in relation to 71 variables with a sample of 300 subjects. An internal consistency index of .945 was obtained for the complete scale, which is considered to be a good score. As for the separated sections of "SN's usage profile" and "SN's intensity usage", the score was .939 and .812 respectively. Although a global score beyond 0.90 suggests shortening the scale by reducing the number of items, the theoretical relevance of the items was taken into consideration rather than its statistical consistency.

Data analyses

Quantitative data were analyzed using the software Statistical Package for the Social Sciences (SPSS) version 21. For the analysis of the demographic data, frequency and percentages were employed to describe the sample and descriptive statistics were conducted to demonstrate the findings. The SN's intensity analysis was conducted based on the scores of the different items in the scale and then computed to explore relationships between the variables in the study. In the following section of the results, the sample will be delineated using basic descriptive analyses, followed by correlation analysis to attest the hypotheses.

Results

Descriptive statistics

The age of the participants ranged from 16 to 39, although over 81% of the sample were between 18 and 22 years old. The mean age was 20.3 with a standard deviation of 2.2. The distribution of the students across the

different years of studies was 28% of first year students, 13.7% of second year, 25.3% of third year and 28.3% of fourth year students, with 4.7% representing the remainder of the sample. The majority of the students in the sample were from Zaman University (68.3%) representing 46% of the overall student population in that institution. Business Administration (N=49), Civil Engineering (N=33) and International Relations students (N=30) were the most representative in the sample. Due to access constraints, only 31.7% of the sample were students from ITC. However, although all of them were majoring in Computer Science, they represented 75% of the student population in the Department of Information and Communication Engineering in the university. Most of the students have used the Internet for several years now with over 71% of the respondents using it between three and seven years. Unsurprisingly, all of the students have an email address but only 18.7% mentioned having a personal webpage. However, 56.2% do have a blog. Over 85% of the respondents use the Internet more than one hour a day (39.1%, 1-3 hrs.; 23.7%, 3-6 hrs. and 23.4%, more than 6 hrs.) and a significant part of that time is dedicated to SN's as nearly 75% use it several times a day (Q1) which confirms *hypothesis 2a* related with student engagement.

In the landscape of SN's, students rated the use of different platforms on a six-point Likert-type scale with responses ranging from 1 (*Unused*) to 6 (*Widely used*). Out of thirteen SN platforms YouTube is the most widely used with an average score of 4.95 ($SD = 1.28$) followed by Facebook with 4.89 ($SD=1.36$). Instagram is used often by the students with a score of 3.18 ($SD=1.97$) while Google+ scores 3.08 ($SD=1.70$). Twitter comes halfway on the list with a score of 1.83 ($SD=1.24$) followed by Tumblr and the business-oriented social media service LinkedIn.

In terms of personal identity a question was presented based on potential markers that might be used to express the user identity. SN's offer a wide variety of forms in which one can present themselves to others, which is a facet of identity. Of the categories of personal information that SN's provide space to share, those most often included were demographic types of information (e.g., gender, birthday, hometown), interest and media preferences. These findings are consistent with those reported by Pempek et al. (2009), however, this study introduces "university issues" and "academic qualifications" as two more categories of personal information that students share on SN's (see *Table 1*). Religion and political views were not shared by the majority of the students.

For each possible category of information that can be shared on SN's, students were asked a series of questions about why they included such information in the platform. Apart from gender, students often posted music and personal interests as a way to express identity (see *Table 1*). The "About me" category, which allows users to briefly describe themselves, was also commonly chosen as an expression of identity. Although used to

express identity by some students, a considerable number of students post information on the SN's just because there is a specific place to enter that information and not for identity related issues or any personal conviction. In fact, expressing opinions was rarely selected in responses for information shared on SN's.

Table 1 - What kinds of information shared on SN's and why

	I do not share this information	Because there is a place to enter this information	Because it is important for people to know	Because I have a strong opinion on the subject	To express who I am
	Row N %	Row N %	Row N %	Row N %	Row N %
About me	32.8%	27.0%	16.2%	2.7%	21.3%
Favorite music	28.4%	25.1%	10.4%	11.0%	25.1%
Favorite movies	34.7%	22.9%	14.8%	12.5%	15.2%
Favorite books	29.6%	23.2%	18.9%	13.5%	14.8%
Personal Interests	25.3%	23.0%	16.2%	9.8%	25.7%
Political views	65.4%	11.9%	13.2%	6.8%	2.7%
Religion	63.2%	13.7%	14.1%	1.7%	7.2%
Work issues	51.9%	19.5%	15.0%	9.6%	4.1%
University issues	24.6%	19.8%	28.7%	13.0%	14.0%
Hometown	30.7%	30.1%	17.9%	4.4%	16.9%
Academic qualifications	38.4%	21.2%	21.2%	6.5%	12.7%
Relationships status	57.2%	17.5%	10.3%	4.8%	10.3%
Sexual orientation	78.8%	9.6%	5.5%	1.4%	4.8%
Gender	23.3%	32.2%	17.5%	2.1%	25.0%
Birthday	31.9%	35.6%	13.2%	2.0%	17.3%
Facts and false information	51.2%	14.7%	19.1%	7.8%	7.2%

Fonte: (Martires, 2017).

Social networks intensity

In the last section of the questionnaire students were asked to consider the SN that they use most frequently to answer the question. The following results are based on a specific SN chosen by the students (hereafter the

network), which is irrelevant to the analyses. This study does not focus on any particular SN platform nor does it aim to find any correlation between students and their behavior in a particular platform. Rather, it analyses students' engagement in the broader landscape of social media. These results cannot be extrapolated into any other than the most frequently utilized SN's mentioned in the previous results.

The social networks Intensity scale was adapted from the original created by Ellison et al. (2007) which includes three self-reported assessments of behavior in the network, designed to measure the extent to which the student is actively engaged in SN activities. These assessments are the number of contacts and the amount of time spent on the network on a typical day in passive mode and active mode. The last two items were adapted following the findings in Pempek et al. (2009) which clearly distinguishes two different types of usage, the time users spend on the SN without posting any information, i.e. lurking and observing other's actions and the time they spent actively engaged in the SN, posting contents or updating profiles. The measure also includes a set of six-point Likert-scale attitudinal questions (1-Strongly disagree to 6-Fully agree") designed to perceive the emotional connection to the SN and the extent to which the SN is integrated into student daily activities (see Table 2 for item wording frequency and descriptive statistics).

Table 2 - Summary statistics for network intensity

SN's Intensity (Cronbach's alpha = .812)

How many contacts do you have in the network?

	Frequency	%
<25	11	3.7
25-50	12	4.0
51-100	45	15.1
101-300	101	33.8
301-500	55	18.4
>500	75	25.1

Typically for how long do you use the network in...

	... PASSIVE mode		... ACTIVE mode	
	Frequency	%	Frequency	%
<15 min	23	7.7	125	41.7
15-30 min	48	16.0	61	20.3
31-60 min	70	23.3	63	21.0
1-3 hours	84	28.0	19	6.3
+6 hours	43	14.3	17	5.7
>6 hours	32	10.7	15	5.0

	Mean	Std. Deviation
The network is part of my everyday activity	4.533	1.377
I am proud to tell people I'm on the network	3.217	1.482
The network has become part of my daily routine	4.174	1.464
I feel out of touch when I haven't logged onto the network for a while	3.478	1.557
I feel I am part of the network community	3.700	1.413
I would be sorry if the network shut down	3.963	1.678

Fonte: (Martires, 2017).

These findings also suggest a daily interaction in the network which supports *hypothesis 2a* related with student engagement.

To capture a student's usage profile, a set of questions were presented on the activities, the motives and with whom they communicate in the SN. Using the SN as a communication media, students reported on a six-point Likert-scale (1-*Never* to 6-*Frequently*) frequent interactions with friends and colleagues with a mean of 4.96 ($SD=1.25$) and 4.20 ($SD=1.37$) respectively. In accordance with these results, some of the activities students perform most on the SN are "Send a message" and "Chat with others", with means of 4.28 ($SD=1.42$) and 4.07 ($SD=1.39$) respectively, although the main activity is "Check out the news feed" ($M=4.60$, $SD=1.56$). They seldom interact with strangers ($M=1.85$, $SD=1.01$) and not very often with teachers ($M=2.89$, $SD=1.27$).

Among the motives for using the SN, students responded from 1 (*Strongly disagree*) to 6 (*Fully agree*). The main reason was to keep in touch with friends ($M=4.83$, $SD=1.26$) followed by getting information about social

events ($M=4.27$, $SD=1.43$). These results, supported by the number of contacts in the network.

(Table 2), confirm hypothesis 2b as students use SN's mainly for social interaction. Other reasons revealed that particular interests for education were related with the academic environment, either to discuss academic issues with colleagues or connect with someone from the university. The latest has a mean of 4.14 ($SD=1.32$) while the former scores 4.01 ($SD=1.45$). It is also noteworthy that most students considered the SN enjoyable as this item has a score of 4.11 ($SD=1.35$). These results are not conditioned by the students' gender. An analysis by group does not change the outcomes.

Correlations

In order to test the remaining hypotheses, several tests were conducted to determine the relationship between the variables in the study. To analyze the relationship between the use of SN's sites and the active participation of students in their most used SN, a chi-square test was performed and the results showed a positive correlation between these two variables (X^2 (25, $N=298$) = 41.17, $p = .022$). In fact, only the students that use SN's sites several times a day (74% of the sample) reported that they spend more than one hour actively in the network (43 out of 223 students). It is clear that the more time they use SN's, more actively they engage online, which confirms hypothesis 1. However, it should also be noted that a significant part of students only adopt an active approach for less than 15 minutes a day (92 out of 223 students).

Communication in the network was analyzed to see whether it determined the frequency of use. The analysis was conducted considering two different forms of use: passive and active. The findings suggest a noteworthy association between these variables. A Spearman's correlation coefficient indicates a strong positive correlation of communication with friends ($r_s = .158$, $p < .001$) and university colleagues ($r_s = .168$, $p < .001$) with the passive form of using the network. On the other hand using the network actively has a correlation with communication with family ($r_s = .230$, $p < .001$) and teachers ($r_s = .233$, $p < .001$). These findings suggest that students are more likely to engage actively if they are communicating with family and teachers while interaction with friends and colleagues is based on observing each other online. The different types of individuals students engage with determine the form of interaction in the network thus confirming hypothesis 3.

For the following analysis only respondents that use SN's on a weekly or daily basis were considered. In respect to the activities performed in the network, the analysis of an independent samples test indicates a positive association with the frequency of SN's use in activities such as checking out people's pages without leaving a comment (X^2 (1, $N=278$) = 7.20, $p = .007$), sending a message (X^2 (1, $N=278$) = 5.31, $p = .021$), checking people's photos without leaving comments (X^2 (1, $N=280$) = 5.05, $p =$

.025) and chatting with others ($X^2(1, N=278) = 5.03, p = .025$). Although sending messages and chatting are both peer interaction activities, there are other activities such as posting on other people's pages, replying to other's comments, joining a group, among others, that were not significantly associated with the frequent use of the network, hence our *hypothesis 4a* is not confirmed.

The motives for using the network were then analyzed to determine an association with the frequency of SN's use. The results showed a strong positive correlation with motives such as that it is enjoyable ($X^2(1, N=277) = 5.81, p = .016$), for entertainment ($X^2(1, N=276) = 8.75, p = .003$) and checking out someone they want to know better ($X^2(1, N=278) = 4.38, p = .036$). These findings denote that the frequent use of the network is mainly for recreational motives, which does not uphold *hypothesis 4b*.

Discussion

Cambodian university students are frequent users of the Internet and most of them have used it for several years now. This generation of students started to use the Internet in the Web 2.0 era. A significant part of their Internet usage is devoted to SN's, with YouTube and Facebook as the most widely used. Higher education institutions should be encouraged to use these communication channels not only to promote the institution but also to keep close contact with enrolled students and their activities. The fact of having an official channel in several SN's, as in the case of the universities in this study, does not exclude students' direct participation in that same channel.

The findings of information that students share on SN's confirm those reported by Pempek et al. (2009) in which demographic, personal interests and media preferences are among the most common as a form of expressing their identity. Students rarely use the SN's to express opinions. In terms of ideology, religion and political views, these are not shared by the majority of the students which either reveals a lack of interest in these subjects and no political participation in the society or some concern in sharing it publicly. There is a very thin line in SN's between privacy and expression of identity which should be discussed with the students. Instructors can play an important role in counseling and preparing students to feel comfortable in the digital society.

The engagement in SN's activities is popular among students with conversation related activities and checking news feeds being the most common (Q2). Students reported a large amount of friends on the network although they acknowledge they only communicate with a few on a regular basis. Most of them communicate with friends and colleagues from the university but not often with Instructors (Q3). Although the university uses SN's mainly to publish events and achievements it would be wise to take advantage of this digital tools to reach out to students and bring academic discussions online. Instructors can play a substantial role in this task as it

depends mainly on them and not on a university itself. This should not be addressed as an institutional policy but rather as a pedagogical praxis embraced by the instructors for which training might be of importance. To accomplish this, however, a disjunction should be implemented in the communication channels to keep internal academic issues apart from the open channels to the general public. This could be achieved with closed groups, forums or other tools available in the different SN platforms to promote more active participation of students online. The network is a part of their everyday life and communication is the main reason indicated for its use, mainly for chatting and messaging, which students enjoy (Q4).

The Social Networks Intensity Scale corroborates the findings in the original research (Ellison et al., 2007), showing a very strong bond of students with the network. These results confirm a strong presence of digital media in the young generation as claimed by Bassiouny & Hackley (2013). Although there is evidence of an intense use of SN's, most of the students are still mainly consumers of information and not producers. The frequency of use is determined by the individuals that students engage with. There is no evidence of a strong association between peer interaction activities and motives and the frequent use of SN's.

Limitations

There are several limitations in this study. First, the sample is not representative of the whole university population in Cambodia. Second, although the sample consists of students from both a private and a public university, most of the data was collected in the private university which can lead to bias in the results. Finally, the use of social media is a complex and multifaceted phenomenon as stated by Kirschner & Karpinski (2010) and there are many factors that can be addressed in order to have a broader perspective of the subject, like further examining the specifics of social media user and nonusers participation, average grades, extracurricular involvement, among others.

Conclusion

This paper discusses the present state of social media in a university environment in Cambodia in terms of usage profile and intensity. Further research can be conducted to explore direct implications on learning and academic related matters in general. Previous research found that the use of SN's in and of themselves cannot determine academic outcomes, and can in fact be used in ways that are advantageous to students (Junco, 2012). It is now up to the educational institutions to decide what to do with this digital and social phenomenon. There is a wildly complex world out there on the Internet but higher education administrators and faculty have the opportunity to help students facing this new reality and to embrace the use

of social media in ways that are beneficial to their academic experience and personal development.

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