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Abstract

Social networking sites (SNSs), such as Facebook and Twitter, are gaining more popularity and use among students in higher education institutions. Based on the design principles, feature usability and interactivity and affordability, these sites offer a variety of opportunities to support student engagement and student learning. Despite the potential pedagogical advantages of SNSs, and the widespread usage among students and considerable time spent daily on SNSs, the results of many studies indicate that the use of SNSs for academic purposes is still significantly limited. In the present study, individual interviews and focus group discussions were conducted based on a purposeful sampling strategy in order to explore in depth the factors that might motivate students to devote more time and efforts for academic purposes on SNSs; accordingly, a Framework for Student Engagement in SNSs (FSESNS) is proposed.

Keywords: Web 2.0, Social media, Social networking sites, Facebook, Student engagement, Higher education, Case study research, Academic use of Facebook, SNS in education.

1. INTRODUCTION

The innovative interactive and collaborative features of Web 2.0 tools and services, particularly social networking sites (SNSs) have attracted the attention of many researchers in different fields to study this phenomenon and its applications in various fields. According to Steininger et al. (2011) Web 2.0 services have become one of the most widely discussed topics in Information Systems science and practice. Compared to other Web 2.0 and social media tools, SNSs are the fastest-growing and most popular technologies. Boyd and Ellison (2007) defined SNSs as web services that allow individuals to construct public or semi-public profiles, create a list of other users with whom they wish to be connected, and view and traverse the connections made by others. In education, academics and students are increasingly using SNSs to establish and maintain social contacts and relationships, and to support informal learning practices and learning activities (Eden et al., 2011). Many empirical studies have shown a high number of college students using SNSs (Smith et al., 2009; Smith and Caruso, 2010). According to the EDUCAUSE Center for Applied Research (ECAR) study of 36,950 students from 126 US universities and one Canadian university, 90% of the students used SNSs (Smith and Caruso, 2010). Compared to other e-learning systems and tools such LMS, SNSs features and tools are more flexible to support student-centred learning environment (Alhazmi and Rahman, 2012; Alhazmi and Rahman, 2013b). Moreover, SNSs attract students to join common interest communities, helping each other in their academic studies, building bonds with their classmates, and promoting supplementary interactions between them and their instructors (Griffith and Liyanage, 2008). According to Alexander (2006), SNSs support social learning and content sharing. In addition, McLoughlin and Lee (2007) summarised the capacity of social network software to facilitate teaching and learning into four main categories, namely: connectivity and social support; collaborative information discovery and sharing; content creation; knowledge and information aggregation; and content modification. In another study, Alhazmi and Rahamn (2013b) argued that SNSs support different forms of student learning, including constructive learning, social learning, real life learning, collaborative learning, interactive learning, and informal learning.

Among other social networking tools and services that promote social interaction, Facebook is the most popular and preferred social network site among university students across ages (Steinfield et al., 2008), and it makes sense to propose it as a higher education learning tool (Heiberger and Harper, 2008; Teclehaimanot and Hickman, 2011; Alhazmi and Rahman, 2013a). Many research studies have shown that the majority of college students use Facebook (Steinfield et al., 2008; Matney and Borland, 2009; Smith and Caruso, 2010; Eden et al., 2011; Lampe et al., 2011; Dahlstrom, 2012). A study by Matney and Borland (2009) reported that some 99% of students used Facebook. According to the ECAR study, 90% of students reported they used Facebook as a daily activity (Eden et al., 2011).

The enormous growth in the number of students who use Facebook, as well as the amount of time students spend on it, opens opportunities and creates challenges for higher education institutions (Alhazmi and Rahman, 2013a). Some higher education institutions have already started to encourage students and faculty to use these networks for educational purposes and some have not; in either case, universities are still in the beginning stages and not very much is yet known about students' motives to be highly engaged in the academic aspects of SNSs compared to non-academic activities. Although the main purpose of SNSs when first introduced was for social purposes, the results of some studies have indicated that using SNSs features and tools in relevant educational ways could support student engagement and overall academic performance and achievement. For example, the results of a study by Reynol (2012) indicated that using Facebook for collecting and sharing information was positively related to the students' GPA and number of hours spent studying. In addition, in order to evaluate how SNSs can influence student engagement and grades, an experimental study was conducted with an experimental group using Twitter for various academic discussions; the results showed that the experimental group had a significantly greater increase in engagement than the control group as well as an increased GPA (Junco et al., 2011). On the other hand, the more time students spent on social activities, the more their study could be affected negatively. The results

of the study by Reynol (2012) revealed that using Facebook for socialising was negatively predictive of the student's GPA and hours spent studying.

Overall, using SNSs among university students could affect student learning positively and negatively; it depends on what types of activities users perform online and how much time students spend on SNSs for academic purposes. As a result, this study aims to explore the factors that might influence students to devote more time and effort to purposeful academic activities on SNSs.

2. LITERATURE

2.1 Problem Background

Studies into the high level of social network site usage, particularly Facebook, among university students and the time students spend on it have revealed that the most common use is for social purposes. This includes keeping in touch with friends and maintaining existing relationships, while there is significantly little use for educational purposes (Kabilan et al., 2010; Roblyer et al., 2010; Eden et al., 2011; Hew, 2011; Dahlstrom, 2012; Alhazmi and Rahman, 2013a). A study by Hew (2011) included a comprehensive search of empirical studies on Facebook usage and concluded that the use of Facebook for educational purposes is significantly limited. Despite the high rate of usage among higher education students, many studies have stated that the most common reason for use remains social interaction and communication; while the use for academic purposes is still very much at the beginning stage (Hew, 2011; Alhazmi and Rahman, 2013a). For example, in one study only 4% out of a total of 68,169 wall postings were related to education (Selwyn, 2009); whilst 10% of 312 undergraduate students were found to use Facebook as a means of discussing academic work with other students (Madge et al., 2009). Regarding the level of communication between students and academic staff, 91% of 312 students (Madge et al., 2009) and 85.5% of 110 students (Ophus and Abbitt, 2009) reported that they had never communicated with an academic staff member using Facebook. In a study by Smith and Caruso (2010), it was found that only about 3 in 10 students reported they were using SNSs in course activities and 1 in 10 said they used them to communicate with instructors about course-related topics; only about 3 in 10 of the respondents who used SNSs said they had accepted college or university instructors as friends. The results of an exploratory study by Alhazmi and Rahman (2013a) showed that 97.2% of students used Facebook, with 78.9% of them spending more than an hour a day on Facebook for non-academic activities. While 36% of the students used it for academic activities, 92.3% spent less than one hour a day on academic purposes.

Although SNSs have a great potential for educators and practitioners, many researchers have argued that there are still many questions about the possible benefits, factors, challenges and obstacles that need to be explored and future research is needed to learn how its use can be improved. For example, Thongmak (2011) suggested that further research should be carried out in different environments or other countries and more factors should be investigated in order to deeply comprehend the importance of instructor characteristics and student characteristics in the implementation of social networking sites for education. Furthermore, Hew (2011) emphasised that for overall improvement of Facebook use for academic purposes, further studies need to be conducted in different countries, and in different academic institutions with consideration of the socio-cultural and geographical contexts.

It can be concluded that the academic use of Facebook is still limited in terms of both the number of students who use Facebook for academic reasons and the time students spend on Facebook to engage in academic activities. In contrast, the problem brought to the forefront by many administrators and parents is the widespread complaint that students spend far too much time engaging in non-academic activities using the Internet and other technologies (Heiberger and Harper, 2008).

Therefore, the question that needs to be raised is what might motivate students to be engaged more in SNSs for academic purposes. This includes studying the influential factors and the most appropriate ways of using

Facebook to support student engagement in academic activities, as well as improving students' learning and outcomes.

2.2   Student Engagement Theory

Student engagement is one of the most important issues in enhancing learning and teaching in higher education (Chen et al., 2008; Trowler, 2010). Student involvement theory was proposed by Alexander Astin in 1984 and has more recently been referred to as "student engagement" (Heiberger and Harper, 2008; Junco, 2012). Astin's theory of student engagement is the most popular theory to describe the concept of student engagement (Heiberger and Harper, 2008; Kuh, 2009; Junco, 2012) and has become the latest focus of attention among those aiming to enhance learning and teaching in higher education (Chen et al., 2008; Trowler, 2010). The theory helps higher education institutions to design, implement and evaluate different aspects of teaching and learning (Heiberger and Harper, 2008). According to this theory, a student is involved when he or she devotes considerable energy to studying, spends much time on campus, participates actively in student organisations, and interacts frequently with faculty members and other students. Conversely, a typical uninvolved student neglects their studies, spends little time on campus, abstains from extracurricular activities, and has infrequent contact with faculty members or other students (Astin, 1984). The theory of student engagement suggests that student time is the most valuable resource: the more time and effort students spend on academic activities, the more they learn and achieve particular goals. In other words, if the student spends a considerable amount of time on non-academic purposes, such as activities with family and friends, this will result in a reduction in the time the students have available to invest in academic purposes.

Moreover, it has been suggested that engagement refers to wider factors and activities including interactions with faculty, involvement in co-curricular activities and interaction with peers (Pascarella and Terenzini, 2005; Kuh, 2009). Some have suggested that engagement is a student responsibility (Hu and Kuh, 2002; Krause and Coates, 2008), while others have suggested that the responsibility sits with the institutions (Little et al., 2009). Trowler (2010) argued that students and institutions are both responsible for student engagement. In the present study, in the social networking context, the term "student engagement" refers to the time and effort students invest in educationally-relevant activities in SNSs, both in-class and out-of-class. These activities include participating in learning activities and assigned tasks, providing feedback, sharing resources and experience, and interacting and collaborating with faculty and peers. In addition, it is proposed that promoting student engagement in the social networking context is the responsibility of students, faculty and institutions.

2.3   Student Engagement in Social Networking Context

Student engagement theory can be used as a theoretical lens for student engagement in the social networking context to explore students' experience and motivations to invest more time and efforts towards more effective academic engagement in these social networking technologies. According to Heiberger and Harper (2008), the Astin theory is widely endorsed as a straightforward, well-used model in many areas of student affairs research, and it can be used to support new thinking regarding student involvement with the new communication features of Facebook.

To date, there are few studies on student engagement with social networking, particularly Facebook. In a recent study, Junco (2012) stated that previous studies examining the relationship between Facebook use and student engagement were limited by their evaluation of usage and the way in which engagement was measured. The main concern of previous studies on student engagement with SNSs (including the work by (Junco, 2012) lay in to study the relation between the use of SNSs and the student engagement. However, it can be seen that the current approach to investigating engagement is predominantly in relation to social activities, rather than academic activities. However, faculty and students can use Facebook and other SNSs

in purposeful educational ways to promote student engagement and improve student learning, and this area remains largely unexplored.

Given that Facebook continues to be accepted in higher education, further research is needed to enhance the level of academic engagement commensurate with the current high level of social engagement (Alhazmi and Rahman, 2013a, 2013c). This start with exploring and identifying what might motivate students to get involved and invest more time and efforts for course related activities, such as, sharing academic resources, communicate, collaborate, and interact with peers and faculty. Because of the overlap of using SNSs for academic and non-academic purposes, it is important that educators and higher education institutions understand the most influencing factors that promote student engagement in these social technologies and then how SNSs features and tools can be used to support pedagogical sound practices. Without such knowledge, there is little guidance on how to best utilize technology and its' services to support learning.

Based on student engagement theory (Astin, 1984), the key argument in this paper is that the more students are involved in relevant academic activities on SNSs, the more they can improve their learning. The time and the activity are the main considerations. Social networking has a great potential to support student engagement; however, social networking as a medium cannot promote student engagement by itself as there are many factors related to it that have yet to be studied in any great detail. As many studies have identified the low level of student engagement in SNSs, it is important to explore the factors that might motivate students to be engaged more in SNSs for purposeful academic activities. As a result, based on student engagement theory, an inductive approach is applied by using focus group discussions and interviewing experienced students in the field to investigate their preferences and experiences. Understanding what might promote student engagement in SNSs will consequently help to develop a better and deeper understanding of SNSs and their possible academic applications in higher education institutions.

3. METHOD

3.1 Research Design

This research uses the qualitative single case study design (Yin, 2009) with multiple qualitative methods. The case study approach is chosen as the context matters in both the student engagement context (Coates, 2005; Chen et al., 2008; Kuh, 2009) and in the social networking context (boyd, 2006; Lewis and West, 2009; Hew, 2011, Junco, 2012). Two qualitative methods were used, namely, the semi-structured individual interviews, which constitutes the empirical backbone of much qualitative research (Campbell et al., 2013), and focus group discussions which create an opportunity for data collection through group interaction and discussion and thus provide insights into a given research topic (Morgan, 1996). The qualitative design is selected due to the recent emergence of SNSs in the academic context and because the current theoretical models do not provide adequate insights into student engagement in the social networking context. Thus, the qualitative approach seems necessary for a better understanding of the phenomenon in the academic context. Exploratory research is meaningful in any situation in which the researcher does not have enough understanding of the problem, and is usually followed by further exploratory or conclusive research (Kombrabail, 2009). According to Creswell (2008), qualitative research is exploratory and is useful when there is little research on a concept or when the researcher wants to know the important variables to study. Further, in IS and social science research, qualitative methods have been typically used for exploratory purposes to generate theoretical insights and to develop better understanding of a phenomenon (Walsham, 2006; Venkatesh et al., 2012). Figure 1 illustrates the research design of this study.

3.2 Sampling and Data Collection

Qualitative purposive sampling techniques were used in this research to select the respondents for semi-structured individual interviews and focus group discussions. Voluntary participants were selected based on specific criteria to ensure a good level of experience and interaction with Facebook for education and course-related activities. The criteria included: the participant should have been registered as a Facebook user for at least two years, the participant should be a full-time student, and the participant should have some experience in the academic use of Facebook with peers and lecturers.

Facebook was selected as the social networking site, as it is currently the most dominant social networking sites among students in higher education (Steinfield et al., 2008; Matney and Borland, 2009; Smith and Caruso, 2010; Eden et al., 2011; Lampe et al., 2011; Dahlstrom, 2012; Alhazmi and Rahman, 2013a). Respondents from a variety of backgrounds, experience and study level were purposefully included in order to maximise the opportunities to share good practices and experience and to understand students' motives to spend more time on Facebook for academic purposes. Taking advantages of the Facebook technology, eleven invitations sent to potential participants through Facebook messages. Nine out of eleven responded positively and agreed to participate in the data collection tasks. Nine semi-structured face-face interviews were conducted with postgraduate students from five faculties and seven nationalities including seven male and two female students. A general interview guide, including interview questions and issues, was created and sent to the participants in advance. Table 1 presents a summary of the profiles of the respondents involved in the individual interviews.
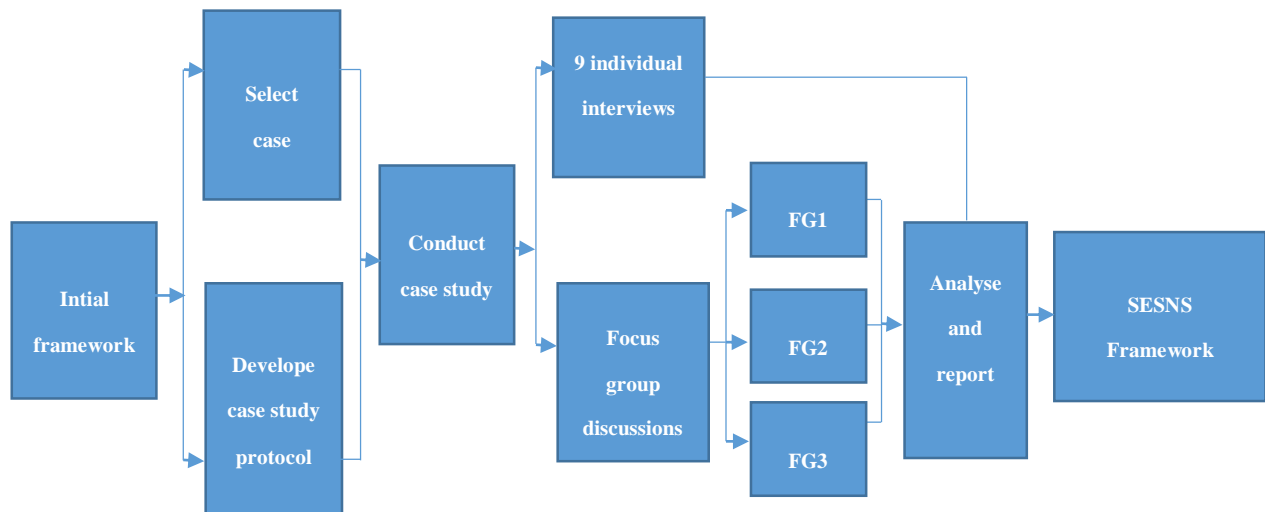

Figure 1.   Case study design – Single case with multiple methods

In focus group discussions, three groups of individuals were selected by researchers with the help of the students' society to discuss the research topic. Prior to the discussions, an invitation and focus group guideline were sent to the participants in order to help keep the discussion focused on the important issues and to ensure the information gathered is useful. The guideline contained an outline of focus group discussion objectives, questions, rules and schedule. A summary of the focus group participants' profiles can be seen in Table 2.

No.	Background	Gender	Interest	FB Social Experience	FB Academic Experience
P1	Yemen	Male	Policy Science and Innovation	4 years	3 years
P2	Sudan	Male	Information Security	5 years	2 years
P3	Kashmir	Male	Business Administration	3 years	2 years
P4	Pakistan	Male	Collaborative Learning	5 years	3 years
P5	Iran	Male	Business – Leadership	4 years	2 years
P6	Yemen	Male	SME Services	4 years	2 years
P7	Indonesia	Male	Knowledge Management	5 years	3 years
P8	Malaysia	Female	Facebook in family issues	5 years	2 years
P9	Malaysia	Female	Quality Management in Higher Education	4 years	2 years

Table 1.   Individual interviews: Respondents' profiles

Focus Group Discussions	Respondents' profiles						
	No.	Gender		Study		Background	
		Male	Female	Postgraduate	Undergraduate	International	Local
FG1	7	7	-	2	5	1	6
FG2	3	3	-	3	-	3	-
FG3	7	3	4	-	7	-	7
Summary	17	13	4	5	12	4	13

Table 2.   Focus group discussions: Respondents' profiles

4.   RESULTS

4.1   Data Analysis

Data were collected from March to September 2013. The participants were asked to discuss their experience of using Facebook for academic activities and to explain the most important factors that would motivate them to be highly engaged with Facebook for academic purposes. After the focus group discussions and interviews were conducted, the data were transcribed and coded for the purpose of data unitising and categorising. The unit of analysis was the interview parts, which ranged in length from a set of words or sentence to several paragraphs (Campbell et al., 2013; Berg, 2011). The coding process was performed in NVivo 10 using auto-coding for the interview questions. Selective coding was used to identify the central categories and then systematically and logically relate all the sub-categories to these central categories. Selective coding in NVivo is similar to open coding, in which the "researcher carefully reads the document line by line and word by word to determine the concepts and categories that fit the data" (Strauss, 1987).

To ensure the quality and trustworthiness of a qualitative study, the reliability and validity should be addressed (Yin, 2009; Graneheim and Lundman, 2004; Krippendorff, 2004; Perry, 1998). In case study

research, reliability refers to demonstrating the transparency of the study by developing the case study protocols and creating a case study database to ensure that the same case can be conducted again (Yin, 2009). In the present research, reliability was ensured by developing case study protocols which included a set of clearly defined steps and related procedures for collecting, coding and analysing the data. In addition, a case study database was created to gather different data sources, transcribed files, nodes, data queries and other relevant materials.

Validity in qualitative research refers to the extent to which a measuring procedure represents the intended concept (Neuendorf, 2002). In case study research, construct validity refers to identifying the correct operational measures for the concept being studied (Yin, 2009). Ryan and Bernard (2003) explained that checking the validity is necessary in order to make sure that the identified themes are valid; however, "there is no ultimate demonstration of validity" as it depends on the agreement across coders. It was suggested that inter-coder reliability needs to be calculated, which refers to the degree to which the coders agree with each other about themes (Neuendorf, 2002; Ryan and Bernard, 2003). In this research, the reliability procedures were conducted by presenting the coded statements to an expert in the field to show his agreement and disagreement, and then the inter-coder reliability were calculated using Percent Agreement (PA) (Neuendorf, 2002; Ryan and Bernard, 2003). The results reflect a 0.88 inter-coder reliability, which indicates a high reliability coefficient (Ellis, 1994; Neuendorf, 2002). Any disagreement on the coding tested for reliability was resolved through discussion.

As a result of the analysis and coding validity processes in the present study, the various constructs that influence student engagement in SNS were identified. Seven major themes emerged from the results, namely, institutions, faculty, technology, peers, content, privacy, and interest.

4.2 Framework of Student Engagement in Social Networking Sites

Figure 2 shows the proposed Framework of Student Engagement in SNSs which describes the main emerged themes and the relationships among them as identified through the interviews and focus group discussions. Each of the major themes is discussed in detail in this section.

4.2.1 Institutions

The results indicated that the role of the academic program or the institution in the academic use of Facebook is important. The provision of training and a policy framework was commonly reported as the institutional responsibility. As one respondent noted: "To encourage students and lecturers using social networking for teaching and learning purposes there should be a policy; you can't enforce anybody to use it for education because of the social side of it". Further, when the participants were asked what might motivate them to invest more time on Facebook for academic activities, one interviewee commented, "If Facebook is introduced for students by the institution and faculty staff".

As long as the higher education institutions intend to integrate social networking into the educational systems whether in face-to-face, online or hybrid courses, the policy is important in this context to specify the relevant producers and roles. It is suggested that there should be a policy that considers working on some activities on social networking as a part of the course assessment activities, or to integrate Facebook activities into the course plan and allocate a specific amount of time in the course credit hours in order to motivate students to participate and interact in social networking for course- related activities.

In relation to training, some of the respondents emphasised the importance of training for the stakeholders on the technical use of Facebook features for academic use. In contrast, other students during the focus group discussions reported that there was "no need for training, everybody can use it". However, what is required in relation to training is a more comprehensive training approach that focuses not only on how to

use some features and tools but also on creating and sharing pedagogical practices supported by related Facebook functions and tools. Although Facebook provides a variety of interactive features that can be used for education, students need to know them and if some features are highlighted and explained to the students, they will more easily get motivated to work academically on Facebook.

4.2.2   *Faculty*

The students reported that the role of faculty is essential to promote student engagement in SNSs for academic purposes. One respondent reported that he used to use Facebook just for social and personal activities until his supervisor opened his eyes to the the value of Facebook for learning purposes by asking him to follow her academic activities on Facebook. He explained: "*She was always posting and I got a lot of insights and motivation to use it for academic reasons*". In response to the question asking the students to describe their experience of using Facebook for academic purposes, another respondent commented that his academic use of Facebook had been much better in the previous semester: "*In the last semester, we created a Facebook group for one subject and it was very useful because of our lecturer. She was so active in that group, she gave us a lot of hints, shared Powerpoint slides related to that subject, and if we had any questions we can ask at any time she can answer. She was very active*".

Despite some respondents identifying the important role of the faculty to promote student engagement through these social technologies, other students reported that their lecturers were not very active academically on Facebook. For example, during the focus group discussion, one respondent mentioned, "*I do not think lecturers access to Facebook for academic work*". Another stated: "*When you look at the groups which some lecturers are members of, when you see who replies it is just students, lecturers don't reply to students, most of them don't respond*". This was emphasised by another respondent who answered: "*Oooh lecturers*! *If I am not mistaken only one doctor, he is the only lecturer who uses Facebook for academic stuff*". This gives an answer to some of the questions raised in the literature about the low level of student engagement with SNSs for academic purposes and what might contribute to the effective academic use of these sites.

In addition to the importance of the faculty involvement and participation to motivate higher education students to interact and communicate on Facebook for academic purposes, relationships and friendships were also reported as motives for academic communication and interaction between faculty and students. In response to the question "What kind of lecturers would you like to interact and communicate with more for academic purposes on Facebook, one postgraduate student replied: "*It mainly depends on the lecturer, if he is friendly and not difficult*". He added, "*Those who understand me and I understand them, I will ask them questions and freely access to them*". This indicates that on SNSs, students expect their faculty to wear the cap of a friend and not the cap of a teacher. Likewise, lecturers need to communicate and interact with their students as friends rather than students. Such characteristics seem to be vital for effective academic interaction on Facebook; most of the undergraduate participants emphasised this point during the focus group discussions using different terms such as, "*open minded*", "*friendly*" and "*supportive*". In contrast, failing to understand the more appropriate ways of contacting students through these technologies might unintentionally cause student disengagement.

Furthermore, cultural issues were reported by some respondents in response to the question about students' preferences to have a Facebook relationship with teachers, rather than the academic interaction. In addition, the faculty role can be described from different perspectives, including support and inducement, involvement, responsiveness, and relationship, which in turn have an impact on students' interest as well as their behavioural engagement to use SNSs for academic purposes.

It can be concluded that the role of the faculty is vital to induce student engagement in SNSs from different perspectives, either in terms of their support and encouragement to use these technologies to direct students' interest towards the academic use of SNSs, or in terms of active academic participation and involvement with their students on SNSs, or in terms of providing relevant content as well as introducing academic activities for their students through these technologies.
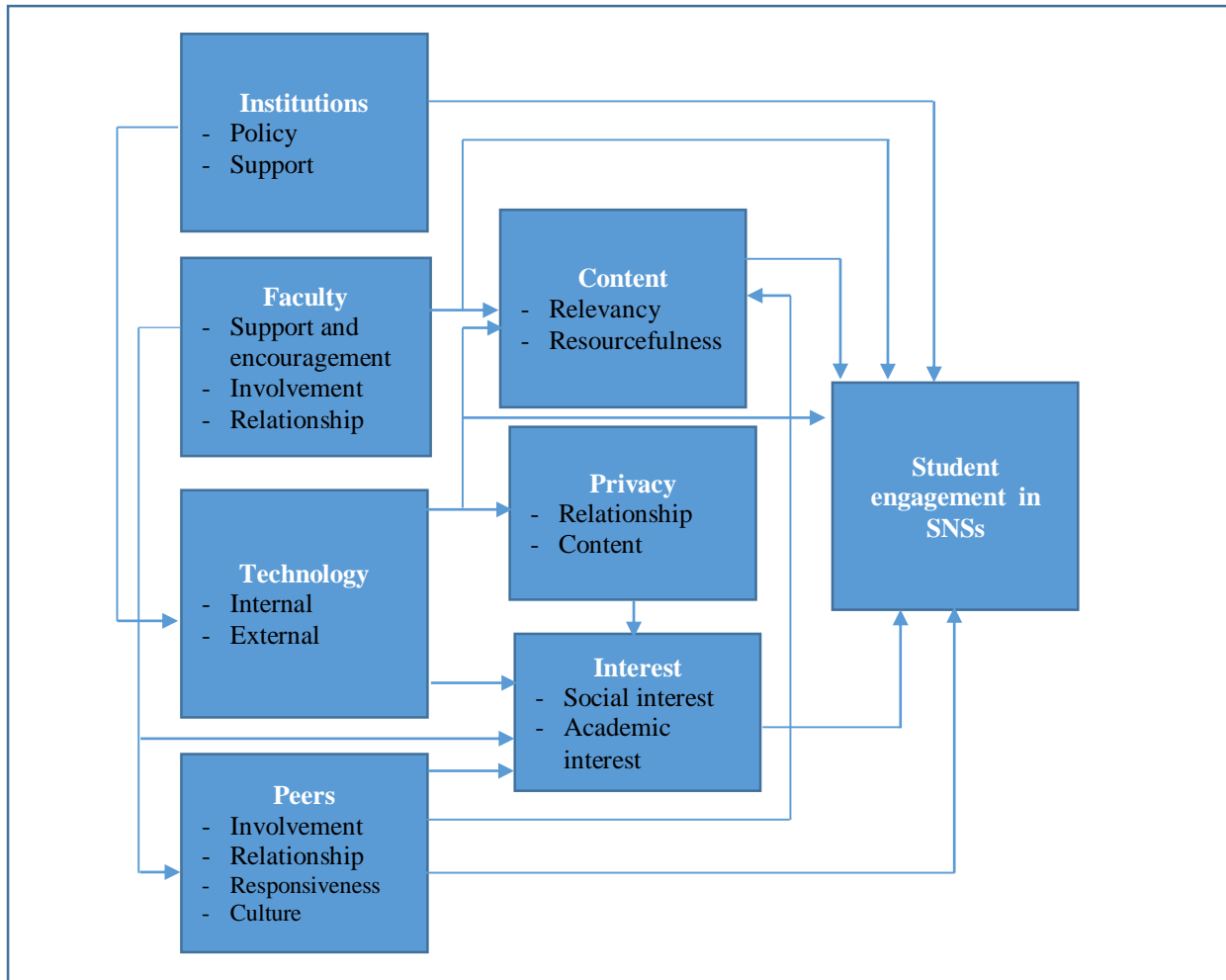

Figure 2.   Framework of Student Engagement in Social Networking Sites

4.2.3   Technology

Students reported that the current Facebook features are interactive, personalised, and easy to use for sharing academic resources, and for academic communication and interaction. However, for effective academic use, it was reported that that these features are good with some limitations. Some students reported that the reason for the low level of student engagement with Facebook on academic activities is that students are waiting for pedagogical academic features that are more suited to academic purposes. The ability to organise content, search for specific content, and assess students' interaction in social networking were seen by students as system requirements for student engagement on Facebook. One respondent reported: "*We cannot categorise, we cannot sort, and we cannot retrieve data very well. If these features were on Facebook, I am sure it will be a different story*". Another suggested, "*If we want to use Facebook for*

academic reasons, we have to find or develop more features related to the academic use, such as assessment". Moreover, the students reported that they expected more features on Facebook to facilitate the teaching and learning process and activities. The current technological features of Facebook have a great potential to support student engagement and student learning; however, some of the respondents missed features to support academic aspects, which can attract students' interest to use Facebook as an educational tool and to motivate them to be more involved for academic purposes.

The technological motives can be understood from two perspectives: internal and external. The internal factors describe the extent to which Facebook's technological features are suited for academic purposes. These features include content management features, communication features, audio and video features, and more options for managing privacy settings. Students' interest in using SNSs for education will be affected by the extent to which SNS features are capable of supporting their academic needs as well as by the other external factors which are referred to in this research as the overall technical support provided from the academic institution to manage the WiFi networks and other Internet services. The speed and availability of the Internet connection was raised during the focus group discussions and seen to be essential to make students more academically active on Facebook.

4.2.4   Peers

Almost all the respondents who participated in the individual interviews and focus group discussions referred to the role of peers for improving student engagement in SNSs. Peer support and involvement were found to be essential to motivate students to be highly engaged in the academic use of SNSs. It was reported that Facebook makes it easy for peers to discuss and share with each other and there is an opportunity to get feedback quickly from others, especially classmates, since "everybody is there". Participants put more emphasis on the peer responsibility to share and to actively participate in academic groups and course-related discussions. One student reported, "*I consider if am sharing something, it is responsibility of others to share also, not just to receive. Sharing is the key for motivation*". Another emphasised, "*Students should share something, this would be useful for academic purposes*".

Other characteristics of peers were also constructed from the students' responses, including involvement, responsiveness, relationship and trust. The results reveal that students would spend more time interacting and communicating with those who are active on Facebook, willing to share and give feedback, frequently update their status in relation to academic activities, participate in the academic discussions, and respond to others' enquiries. Some other characteristics of peers, such as relationship and trust, were also reported with no common agreement about the importance of these characteristics among the participants.

Furthermore, the role of the faculty in initiating learning activities on SNSs is essential as it both facilitates communicative processes between the participants on SNSs and facilitates activities among the participants. In response to the question "What might motivate you and your peers to communicate and academically interact more on Facebook", it was reported that students would be motivated if their teachers asked them and encouraged them to do so. In such a dynamic social environment, students might be influenced by their peers' activities including both social and academic activities. This point was indicated in a comment made by a postgraduate student who said, "*If you are a member of academic groups, for sure the use for academic reasons will increase, but if you are just a member of social groups, you will move to them*". This emphasises the importance of the faculty's role to initiate, coordinate, and facilitate group activities and other classwork activities, which will consequently result in more peer interaction and more time invested in academic activities on SNSs.

4.2.5 Content

The respondents referred to content through the use of different terms, including content, materials, information, pages, and updates. The frequent dissemination of updates with relevant, organised, authentic and resourceful content is what the students suggested would help them invest more time in academic activities on Facebook. The students would be encouraged if there were Facebook pages and groups created and updated frequently with relevant content that is related to a specific course or that helps them solve their problems. When the students were asked "Do you spend more time on Facebook for social purposes or academic purposes?", one respondent reported, "*Actually now for social because there is not enough academic materials on Facebook*". Another stated, "*If there is a Facebook page that is informational for me, I would spend more time on Facebook, but nowadays there are limited Facebook pages for academic purposes*". Content that is up-to-date, informative, authentic and relevant to a specific course or a particular research problem will motivate students to spend more time using Facebook for academic purposes including research and course-related activities. Sharing content with these characteristics is a shared responsibility between faculty and peers to keep updating and sharing materials that is useful and resourceful.

4.2.6 Privacy

Privacy issues were raised in the discussions related to student engagement on Facebook. One postgraduate student mentioned that one reason he was not very active on Facebook for academic purposes is due to the privacy settings. He explained that he doesn't want to add his classmates as friends on Facebook and start interacting with them, since others can make relationships with other people on his friend list: "*If I add my classmates as friends on Facebook they can make relationships with others related to me*". He suggested that "*The relationship should not be extended to other members, actually in Facebook there is no control about this*". With Facebook groups, all members can communicate and chat using group messages regardless of whether they have been confirmed as friends or not. However, it seems that some students are also concerned about the privacy issues, which in turn might have a negative impact on their emotional and behavioural engagement with SNSs.

4.2.7 Interest

The main purpose of SNSs when they were first introduced was personal and social networking, and to date the dominant use remains for these purposes. To utilise SNSs for academic purposes might bring a conflict of interest or multiple interests of use (e.g., social, entertainment, academic). Using SNSs in the academic context is different compared to other e-learning systems and tools in which the main and the only purpose of the system is for academic purposes. Therefore, using SNSs as an educational tool is affected by the student's interest which refers in this research context to the extent to which a student prefers or intends to use the SNS for academic purposes compared to other usage purposes. In this research, the results reveal that the student's interest is important in relation to the student engagement motives in the social networking context. In response to the question "Why do you spend less time for academic purposes on Facebook?", one respondent reported: "*I did set on my mindset that Facebook is for me to socialise with friends and family, so when it comes to academic work, I tend to use it when I want to use it*". Another student answered, "*I consider Facebook is for my enjoyment*". However, the more time spent on non-academic activities will affect the available time to spend on academic activities and consequently affect the students' academic performance negatively. As reported by one of the same respondent who suggested that Facebook was for enjoyment and not for academic purposes: "*I use Facebook for social more than academic, and this really affected my academic performance*". This supports the proposal of this research that it is worthwhile to investigate what might influence students' interest as well as their actual engagement and use of SNSs for

academic activities, rather than to suggest that students should not use it. Indeed, educators and researchers are recommended to investigate ways to make the academic experience on Facebook more enjoyable.

5.   CONCLUSION AND FUTURE RESEARCH

SNSs provide a variety of pedagogical opportunities to support student engagement and student learning; however, the use for academic purposes is still significantly limited and still not very much is known about the students' motives to devote more time and effort to academic activities on these social technologies. Based on in-depth interviews and focus group discussions with students who had experience using Facebook for both social and academic purposes, an initial framework was proposed in this research which integrates the initial themes and construct of student engagement in the social networking context. Therefore, this research contributes to the body of knowledge in both theoretical development, and for IS and education practitioners. The framework can be used as a helpful tool for higher education institutions and educators as well as IS researchers for further explorative studies in the use of SNSs in the academic context, and for further confirmatory studies of student engagement in social networking context. There were two limitations in this research. First, a single case study was conducted. Therefore, cross-case analysis for generalizability and validity issues needs to be considered. Second, the initial framework was not tested. Thus, developing an instrument for testing the proposed framework is recommended for future research.

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