

International Saudi Female Students in Australia and Social Networking Sites: What are the motivations and barriers to communication?

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Abstract

There has been much research into college students' use of web 2.0 technologies, such as Social Networking Sites (SNS) in general and Facebook (FB) in particular. However, few have focused on international Saudi female students (ISFS), whose number is on the rise. Therefore, the current pilot study aims to explore the use of SNS by ISFS in Australia, with a particular focus on FB. Data was collected through five semi-structured in-depth interviews with Saudi female students in Melbourne to explore their motivations for using FB. The results indicated that ISFS were attracted to SNS because of personal (e.g.: peer pressure) and technical (e.g.: convenience) attractors. Currently ISFS use Facebook mainly to keep in touch with their friends and family, to gain knowledge of the various social and political events happening around them; and to have fun through posting photos and making comments. Interestingly, the study found that ISFS showed a positive attitude and willingness to use Facebook in an educational context. Finally, the only factors that might decrease but not stop ISFS' use of SNS in Saudi were technical, and not cultural, for this sample of respondents.

Keywords

Social Network Sites, Facebook, International Saudi Females Students (ISFS), Australia, Appropriation process, Communication.

Introduction

Recently, higher education in Australia has experienced a rapid growth in the number of international students from Saudi Arabia (Australian Education International, 2011). In 2011, a report by Australian Education International (2011) ranks Saudi Arabia among the top ten sources of international students in Australia for the first time. Of all the Saudi students in Australia, there are over 1,500 Saudi female students whose numbers are expected to increase due to the recent extension of King Abdullah's scholarship program (Ministry of Higher Education 2010 as cited by Al-Hazmi & Nyland 2011). Among the various cultural and social challenges encountered (e.g. linguistic difficulties), Shaw (2009) points out a major challenge experienced by international Saudi students is the transition to a new educational environment. When studying in Australia, International Saudi Female Students (ISFS) move from a highly segregated educational environment to a mixed class environment which has adversely affected their academic achievements due to the difficulty in communicating with the opposite gender (Al-Hazmi & Nyland 2011).

In Saudi culture, females are not allowed to mix or communicate with unrelated males, even in areas such as education (Alsaggaf 2004). ISFS also move from a traditional text- and exam-based education system in Saudi Arabia (Oshen 2007) to a research and web-based system wherein technologies such as wikis, blogs and social networking sites (SNS) have been integrated into most of the universities' learning management systems (Kennedy & Judd 2010)

in order to provide students with an effective collaborative environment to share and develop their ideas (Gray et al. 2010). Consequently, it may be difficult to expect Saudi students to be savvy users of various information and communication technologies, and thus be able to apply these technologies in learning settings (Kirschner & Karpinski 2010).

The presumption of the present study, however, is that the opportunity presented to ISFS in Australian universities, gives them immediate exposure to the internet and its applications, and allows them to exploit the benefits which web-based technologies can provide to enhance their learning. It also helps them overcome some of the social, technical and cultural barriers identified by their counterparts in Saudi Arabia (Oshan 2007). Consequently, it is believed that these students will use and adopt Web 2.0 technologies more than their counterparts in Saudi Arabia.

To date, many studies have examined the use of Web 2.0 technologies in general and SNS in particular by college students from different cultural backgrounds. However, most if not all are conducted on students from developed countries such as the US, UK (Lampe et al. 2006; Shade 2008; Pempek et al. 2009) or on international students (Gray et al. 2010). All the Saudi SNS studies are conducted on domestic Saudi students who are undergraduates (Al-Shaddadi's 2009, Al-Otaibi's 2011, Al-Saggaf's 2011, Al-Jasir's et al 2012). Consequently, this study presents an alternate view by exploring ISFS who are studying away from Saudi and explores the experiences of both undergraduate and postgraduate students. It also aims to examine the motives among ISFS for using FB and whether their uses in Australia differ from when they are in Saudi. In addition, it will look at the barriers to using Facebook by ISFS and identify any similarities or differences in the barriers experienced by their counterparts in Saudi. Therefore, the main research question for this study is *"What are the motivators and barriers to using SNS by ISFS?"*

In answering the research question, this study will focus on the use of Facebook (FB). Of the various Web 2.0 technologies (e.g.: wikis, blogs, social bookmarking), SNS, such as Facebook, Twitter, YouTube and My Space have increasingly attracted millions of users worldwide, and have been integrated into daily practices (Ellison et al. 2007). Facebook (FB) in particular has established a huge base of users among university students not only in developed countries (Jones & Soltren 2005; Lampe et al. 2006; Young & Quan-Haase 2009), but even in conservative countries such as Saudi Arabia (Alsaggaf 2011; Al-Otaibi 2011).

However, in contrast to western countries, Al-Shaddadi (2009) found that Saudi females only constituted 38% of the total 231 thousand FB subscribers. Despite the low uptake, the researcher found the presence of Saudi female on FB is much higher than on other SNS or online forums, which is why FB has been chosen as the SNS for this study. Another reason to focus on FB is its popularity among university students population to whom the sample of our study belongs (Jones & Soltren 2005; Lampe et al. 2006; Young & Quan-Haase 2009). Additionally, in Saudi Arabia where the freedom of expression is limited, FB can provide Saudi women with a safe avenue to express their feelings, make their voices be heard, and discuss their problems and concerns (Al-Saggaf 2011). Therefore, this study seeks to understand why and how ISFS in Australia use the SNS, with a particular focus on Facebook.

The paper is organised as following: a description of the research methodology is given in the next section followed by the study's findings. Then a discussion of the findings, limitation and future work, and a conclusion are given.

Methodologies

Study design

Given the explorative nature of the current pilot study, an in-depth interview methodology was adopted to gain insight into the feelings, beliefs and thoughts of the participants (Neuman 2006). This approach also allows the researcher to deeply examine the phenomenon in its natural settings, through the inter-subjective meanings expressed by the participants under investigation; such meanings are formed through interaction with others and through historical and cultural norms that operate within their lives (Creswell 2007).

Data Collection

Upon getting the ethics committee's approval to conduct the study, the researchers sent a number of invitation emails to more than 10 Saudi females who were in the list of the researcher's email account and are believed to contribute to the current study. However, after few weeks, the researcher was able to get the approval of only 5 of the invited students who were happy to participate.

To generate as much information as possible on "why" and "how" ISFS use SNS, this study involved five semi-structured individual in-depth interviews held in Melbourne. The interviews were made up of open-ended and semi-structured questions. The questions ranged from general questions on the students' experience with SNS to more in-depth questions related to the ISFS' FB use patterns and the reasons for using FB. Issues discussed in the interviews include their current use of SNS: when, why, and where they started using these sites, with a focus on FB; their attitudes toward and perceptions of these sites; the positive and negative effects of their FB use; and any changes in their use of Facebook in Saudi Arabia versus Australia. The interviews also concentrated on privacy concerns.

Each interview was recorded and lasted for about 60 minutes. The interview was performed in English language; however, some of the questions were allowed to be addressed in Arabic, which was subsequently translated into English for analysis.

Sample population

Due to the nature of the study that requires an in-depth discussion data was collected from five Saudi female students who, at the time of conducting the study, were pursuing their higher education at different universities in Melbourne-Australia and were willing to participate in the study. In an attempt to collect a diversity of opinions, respondents were sourced from the socially conservative Riyadh province and the more liberal Makah province. In addition to this, two of the interviewees were single females and the others were married women. Moreover, three of five students were postgraduate and the others were undergraduate. They also represented five different disciplines. The participants' age ranged from 20-32.

Data analysis

Following each interview, recordings were transcribed verbatim and translated when required. Transcripts were then sent to the interviewees to confirm the transcribed answers represented exactly what they intended.

The transcribed data were next analysed and coded using the content analysis approach. The coding process consisted of three phases: open, axial, and selective, and was guided by the concepts from the Technology Appropriation Model (TAM) in order to gain a deep insight into the adoption and appropriation of Facebook by ISFS.

The Technology Appropriation Model (TAM) (Carroll et al. 2002) has been used as a lens to help the researcher identify the following factors:

- **Attractors**- which leads users to use Facebook.
- **Repellents**- which may discourage users from using Facebook.
- **Appropriation**- which shows how users evolve in the ways they use FB and build these uses into their everyday life.
- **Non appropriation**- which shows users being uninterested in the use of Facebook and results in failure to start the appropriation process.
- **Disappropriation**- which shows the negative aspects of the technology that might act as barriers which discourage users from further using Facebook.

When looking at the data, the researcher identified a range of themes that were consistent with the above factors. The outcome was more than 30 themes which were all classified under the factors identified by the TAM model and provided a clear articulation of what led to the continued use of FB by ISFS. Some of the themes under each of the factors had further sub-themes that provided more in-depth description of the themes. For example, under the factor called Attractor, there is a theme called "Technology Features" which consists of further sub-themes such as ease of

use, convenience, privacy, and user interface. Therefore, the use of TAM concepts helps us to understand the way ISFS use and appropriate FB.

Following the analysis of the data, the results were compared to both findings and statistics from other studies in the literature in order to find commonalities and differences.

Results

Participants' responses regarding the variables are illustrated in Figure 1.

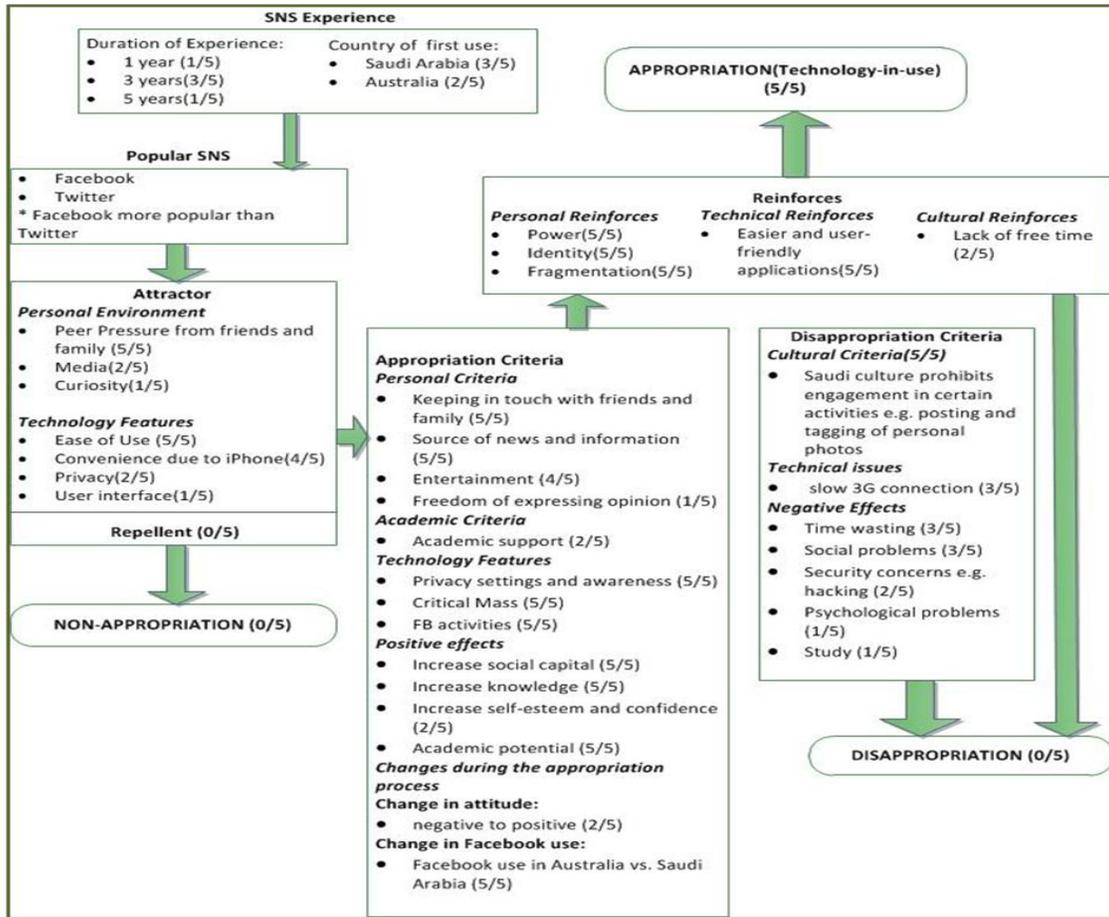


Figure 1. Technology Appropriation Model as applied to Saudi Female Appropriation of Facebook

ISFS' SNS Experience

The majority of the subjects reported having more than one profile in SNS, the most common being Facebook and Twitter. Most had had their profile for three years. Only one had had a profile for five years and another for one year. Three respondents started using SNS in Saudi Arabia, while two began in Australia. Friends and the media seemed to be the most common sources of knowledge about the SNS, followed by family. Only one of the respondents learned about SNS from a teacher. All respondents reported daily use of Facebook.

Attractors/Repellents

While all ISFS identified two main attractors to using FB (personal environment and technology attractors as indicated below), none of them listed any repellents to using FB.

Personal Environment:

Peer pressure: All respondents identified receiving an invitation to join FB from their friends and relatives as a significant motivator for joining Facebook. Subject B said: “*I created a FB account because of my international friends who asked me to join FB in order for us to view/share photos.*”

Media: Two respondents reported their use of Facebook after hearing about it in the media. The media in Saudi Arabia was rife with information on how Facebook would have negative consequences especially for female users. This bad publicity made many parents warn and prevent their daughters from using Facebook. In fact, such a warning is what attracted participant C to use FB. She said: “*You know forbidden fruit is sweet.*” On the other hand, the recent positive Facebook publicity after the Egyptian and Syrian Revolution made the site more attractive for subject A. She explained: “*I created my account after the political changes happened in the Arab world because of Facebook*”.

Curiosity: One student identified her curiosity to explore Facebook and to know more about her friends as a reason to attract her to using Facebook. Subject E expressed her eagerness about technology. She said: “*I really like to try any new technology, I think it is exciting.*”

Technology Features:

Facebook's ease of use: 5/5 of the respondents consider Facebook easier to use than Twitter.

Convenience: 5/5 cited convenience as a reason to use Facebook as they can access it from their iPhone.

Privacy: 5/5 identified privacy options as one of the main reasons for their frequent use of Facebook. Two participants argued that unlike others SNS, Facebook users have complete control over who can become their friends, and who can view their profile. Subject B said: “*Unlike Twitter, in FB we are the ones who decide who can access or view our profile.*”

User interface: One student said her usage of Facebook was due to its appearance and organisation. She added, Facebook keeps changing its appearance, which makes it interesting for users.

Appropriation/ Disappropriation Criteria

These criteria influence ISFS' decision to either appropriate or disappropriate FB.

Appropriation Criteria: factors that lead ISFS more likely to continue to use FB.

Personal Criteria: As shown in Figure 1, all the respondents cited *keeping in touch* with family members and friends as a major reason for using Facebook. The majority of the respondents' friends on Facebook were either their relatives or friends with whom they have some kind of offline friendship. The only student who reported having a few strictly online friends was participant C, who was using FB as a medium to express her political and religious beliefs.

All the respondents said they use Facebook as a *source of news* about their friends, family, as well as current events. In contrast to other Arab media such as TV channels, Facebook was cited as a more credible and transparent medium and users, therefore, get first-hand information on events happening around the world, and not just in their country.

Subjects also reported that they used Facebook to *obtain information* from the groups they join. “The Saudi women's club in Melbourne–SWCM” was the most common group among the sample. The group helps them to exchange personal experience and also obtain services. The Facebook group is also used as a *marketing tool*. Subject A said: “*I used SWCM to help my friend post an advertisement about her business of cooking and selling Arabic sweets.*”

One of the respondents uses Facebook groups to *freely express her opinion* about different topics with people from different walks of life. Subject D said: “*FB gave me the chance to argue with strange men and to know how they think; something that was impossible to do in our society.*”

Four respondents also use Facebook for *entertainment*, such as playing games online

Academic Criteria: As seen in Figure 1, only one respondent used Facebook for an academic purpose, such as to exchange assignments while she was doing her language course. However, most showed an awareness of the educational potential of FB. For instance, subject A said: *“I am planning to use FB to collect my research data, and once I go back Saudi Arabia I will use it as part of my teaching tools.”* Subject B wished she had started using FB earlier so that she could have become proficient in the English language.

Technology Criteria: FB Privacy Awareness and trust: All ISFS showed concerns about privacy issues especially with their photos and contact information. All students reported applying privacy settings to control who can view/access their profile. Many students said that they use “only friends” privacy settings while revealing their personal information. While information including their real names was made open to everyone, 4 out of 5 respondents reported that they conceal their cell numbers. Only subject C reported her refusal to provide her cell-phone number even with “only friend” privacy.

Critical Mass of Facebook among Saudis was another reason to use Facebook more frequently. The majority of students talked about the widespread use of Facebook among famous Arab figures and thinkers who used to be against such technology. Subject C said: *“Now even famous political and religious Arab figures such as Aaid Al-Qarni have a FB account.”*

Facebook Activities Posting non-personal photos was the most common activity (5/5), followed closely by lurking (4/5). Lurking is usually defined as not contributing to online discussion and content publicly (Preece, Nonnecke and Andrews, 2004). Most of them spent much of their time reading others’ posts without commenting; they only comment when they are interested in what has been posted. Posting on walls and sending private messages were also identified by 3/5. Playing games and taking quizzes were only reported by two subjects.

Disappropriation Criteria: factors that could act as barriers to the use of FB.

Cultural Issues: As shown in Figure 1, all subjects identified Saudi culture as the main criteria to potentially disappropriate Facebook’s specific activities such as *posting personal photos*. There was a general fear among respondents about posting their personal photos. This fear is a result of Saudi culture which forbids women from showing their faces to strangers. Four subjects said that although they trust FB privacy settings, they still don’t trust their friends who may intentionally or accidentally (e.g.: forgetting to log out of their FB account) make their photos available to others (friends’ male relatives such as brothers or husbands). The subjects are also scared that their accounts may be hacked by someone who could take their photos and publish them in public. As a result, four respondents posted impersonal photos reflecting their favourite characters, natural scenes, or political or social events. Only Subject B reported posting her personal photos covering her head with the “only friend” privacy setting.

Technical Issues: The last criterion identified by three subjects to affect the appropriation of Facebook was the quality of the internet connection. Subject D stated: *“The only reason that may stop me from using Facebook in Saudi, would be the bad network connections.”*

Changes in Attitude towards Use of Facebook by ISFS during the Appropriation Process

Changes in Attitude: The initial perception of SNS was mixed. While 3/5 viewed and still view Facebook positively, 2/5 of the participants stated that their initial perception towards Facebook was negative because the media in Saudi Arabia had labelled it as corruptive and scandalous. However, with time and use, the perception of these participants towards Facebook changed to positive.

Facebook use in Australia vs. Saudi Arabia: Three respondents argued that their use of Facebook would not be affected when they return to Saudi Arabia. However, they cited technological barriers (e.g.: connectivity) as factors that may hinder them. Unmarried students identified cultural norms (e.g.: spending a lot of time with family) as a reason that could reduce the time they will spend on FB in Saudi.

Effects of Facebook Use as Perceived by ISFS

Positive Effects of Facebook

As seen in Figure 1, all subjects identify Facebook as a positive tool. The most common positive effect was that Facebook helps them to strengthen their relationships, as it makes it easier to keep in touch with everyone irrespective of time or place. The second common positive effect was that Facebook helped the subjects to increase their knowledge on current events happening around them. Two said that Facebook increased their self-esteem and self-confidence by giving them a voice to share and express their opinions and views with members of the opposite sex and people from different religious and political affiliations.

Negative Effects of Facebook

Three respondents said that they waste too much time on FB rather than doing productive activities. Three students also mentioned the negative effect of Facebook on their family life. Two subjects also had family problems after being tagged in photos by their friends. Two respondents raised the issue of FB's *lack of security* by arguing that it is easy to hack users' accounts and misuse their personal information. From a *psychological* point of view, respondent C said: "*when I participate in heated discussions and they turn personal, I get upset.*"

Reinforcers

Personal Reinforcers

Identity, power, fragmentation: All subjects said that joining Facebook groups made them feel that they belong to a group of people who give them emotional and social support, they identify it as a source of power and believed that Facebook allowed them to overcome geographical fragmentation by keeping them connected with their distant family and friends.

Technical Reinforcers

Three students cited that the introduction of other applications such as 'whatsapp' may result in the disappropriation of Facebook. Keeping in touch with friends and family in Saudi was the main reason why the students use FB. Three subjects reported their recent switch to using whatsapp more than FB, as they found it easier, faster, and more user-friendly.

Cultural Reinforcers

Moreover, reinforcers related to cultural norms such as lack of free time for using FB were identified by two subjects as a reason for FB disappropriation.

Discussion

Given the small sample size, collecting data from a variety of backgrounds was important to ensure a range of different opinions that may reflect the larger population. Consequently, as seen in the table, respondents were recruited from varying age groups, marital status, areas of study, and native regions. Students come from either the socially conservative Riyadh province or the more liberal Makkah province and may have different attitudes or experiences towards SNS. However, it is crucial to note that all single interviewees were natives of the Makkah province. Amongst the respondents of this study, it was also found that marital status and regional origin affect their self-disclosure behaviour. For instance, it has been found that unmarried students from Makkah tend to include more detail on their profiles than married ISFS from Riyadh. Additionally it has been found that despite the majority of ISFS being against posting their photos, unmarried students from Makkah (a liberal region providing more freedom) showed a more relaxed attitude towards posting their personal photos compared to married students and those from Riyadh.

Similarities between current study and the literature:

It has been found that the respondents in this study confirm similar behavioural patterns to current literature. For instance, the majority of ISFS have integrated Facebook into their daily lives with an average of 10–30 minutes spent throughout the day (e.g.: Ellison et al. 2007; Pempek et al. 2009). They also reported spending much of their time "lurking" (Pempek et al. 2009). Reasons for lurking include lack of free time and lack of interest in what has been posted. The Respondents in this study also confirmed the findings from literature on what students might use FB for. These include:

- Keeping in touch with their friends (Young, 2009; Al-Saggaf 2011) and remote family members– these are the first findings of their kind in Saudi-Facebook studies.
- Gaining knowledge about various social and political events (Al-Otaibi 2011). The subjects find Facebook more effective in delivering up-to-date news than the Arab media, which is tightly controlled by the government.
- Using Facebook for entertainment purposes (Al-Saggaf 2011; Al-Otaibi 2011). However, in contrast to Al-Saggaf (2011) who found that taking quizzes was a reason to use FB, ISFS considered it the least important form of entertainment, and was only common among the young and single women as they have more free time.

In agreement with Young's & Quan-Haase's (2009) and Al-Saggaf's (2011) findings, ISFS use their identifiable real names to help their friends find them easily. ISFS also showed greater trust and awareness of their privacy settings, especially when it came to their contact information, thereby restricting the visibility of their information to their closest offline friends as they feared that strangers may misuse the information (Young 2009; Al-Saggaf 2011).

Alternatively, respondents in this study confirmed similar factors that might attract or repel students to using FB. Attractors include:

- Peer pressure and curiosity (Shade 2008; Alsaggaf 2011). However, while Al-Saggaf's (2011) and Shade's (2008) students' curiosity was to know more about their friends, ISFS explained curiosity from two angles: curiosity as a result of the need to explore the site, and curiosity resulting from publicity of the site in the media, findings not found in the literature.
- FB's convenience and privacy functions (Kim et al. 2010; Shade 2008). ISFS' perception that FB gives them more privacy than other SNS (e.g.: Twitter) contradicts Aljasir's et al (2012) study, who found FB's restrictions on profiles' accessibility a reason not to use FB.

When it comes to the barriers for FB use, it has been found that despite ISFS being active Facebook users, they identified some repellents that could discourage other Saudi women from using FB. Factors such as lack of computing skills, lack of free time and the introduction of quicker and easier technologies such as WhatsApp were identified as repellents. These findings were supported by Al-Jasir et al. (2012).

In terms of the effect of FB use, in agreement with previous findings (Ellison's et al 2007, Al-Saggaf 2011), the present study shows that due to the critical mass of FB in Saudi society and the role FB played in the Egyptian revolution, ISFS perceived FB as a positive technology, even those who viewed it negatively initially. ISFS believed that the positive impacts of Facebook outnumbered the negative ones. In terms of the negative effects, like Al-Saggaf's (2011) and Al-Otaibi's (2011) participants, ISFS complained about the time they wasted online, which sometimes resulted in neglecting their families and studies.

Differences between the present study and the literature

Differences between ISFS and domestic Saudi students:

Using Facebook groups as a source of gaining knowledge on the social events around them, entertainment, and to share their experiences; rather than to express their political thoughts as reported by Al-Saggaf's (2011) participants. It is unclear if this difference is a result of differences in the perception of political engagement or because most of the current subjects consider their purpose in using Facebook is to have fun.

Using their real names rather than pseudonyms, which were used by Al-Otaibi's(2011) participants. ISFS considered false names to be used by those who want to cross cultural and religious boundaries to do prohibited things.

Unlike Al-Saggaf's (2011) participants who reported posting personal photos with "only-friend" privacy level, the majority of ISFS showed negativity towards posting personal photos. Despite both groups of Saudi women (international and domestic) using "friend-only" privacy level and being aware of the danger of displaying their photos due to their culture, it seems that ISFS were more anxious due to a lack of trust in their friends not to show their pictures to others on purpose or by accident.

Interestingly, while the researcher assumed that ISFS were more likely to use FB in Australia rather than in Saudi due to the absence of cultural (i.e.: family restrictions) and technical issues (slow internet connection), this was not so. For ISFS, Saudi culture controls the way they use FB (e.g.: cautioning against posting photos) but will not prevent them from using it. ISFS reported that their use of FB will not change even when they go back Saudi, and the only issues

that may decrease their use could be technical (connectivity) and social (lack of free time due to time spent with family). ISFS reported changes in their lifestyle in Australia, which affected their FB use due to changes in their amount of free time. For instance, married ISFS complained about lack of free time due to university and family responsibilities, which made it difficult for them to use FB. In Saudi, however, married women have access to maids and in-laws, which gives them more free time to use FB. Conversely, single women in Australia have more free time than their Saudi counterparts, because in Saudi, single women are expected to spend the vast majority of their time with their family – and not online (Al-Saggaf 2011).

Practical Implication

Based on the findings of this study, ISFS recently adopted SNS technology with an average of 3 years of experience and although ISFS used FB as a source of knowledge, they still haven't used it in any formal educational context unlike other international students (Gray et al., 2010). Therefore, Australian educators should not assume that ISFS know how to use SNS in educational context, and hence, they should offer additional instructions and training on how they can use SNS in an academic context. This kind of training would help the students to overcome the challenges ISFS may face due to their unfamiliarity.

While SNS can be used as a forum to help ISFS, who come from a highly gender-segregated culture, feel more comfortable participating in group discussions than they do in the mixed classroom, some uses of the technology must be treated with sensitivity, as some female Saudi students may not be willing to use Facebook in certain ways, especially when it comes to posting photos.

Finally, with the intended extension of the scholarship program, Saudi Higher Education can benefit from the current study by translating ISFS' wishes into reality. Initiating an English language FB and training Saudi students on how to use it is believed to help Saudi students in two ways: by improving their language prior to their admission in overseas universities, and preparing them for the transition to a web-based educational environment.

Limitations and Future Research

There are a number of limitations identified in this study which can be addressed by the suggested future works:

- One limitation of this pilot study was the small sample size (5), representing only those scholarship Saudis with good education and income, so barriers related to technical and financial problems, which may affect the tendency to use FB, were not applicable. Other segments were not considered because of the study's limited scope and time. Consequently, the sample was not highly representative of the larger population, which in turn limited the credibility of the findings (Neuman 2006).

Future research could include a larger sample size to allow researchers to understand how demographic variables not explored in this research contribute to the variance in attractors, appropriation criteria, and reinforcers. For example, a study examining international Saudi male and female students' appropriation of SNS could shed light on the difference that Saudi culture plays upon the genders. In addition, a look at understanding those who choose not to use Facebook could provide insight into the repellants of Facebook. Another suggested extension to this study would be to compare the use of SNS technologies between Saudi SNS in Saudi universities and their counterparts in overseas universities.

- The lack of multiple data sources, such as observations and documents, required for conducting a successful qualitative study was another restraint. The study relies on a single qualitative data source (interviews), which are not enough to empirically examine the phenomenon, come up with a theory and generalise the results (Creswell, 2007).

Future research could combine the current study with a quantitative method, which is less subjective and leads to generalise results. In addition, it would be useful to examine the actual behaviours of the respondents on Facebook, including the demographics of their facebook friends, the pages they like and what they actually comment on.

- The narrow focus on SNS presents limited findings. There are various web 2.0 technologies used in Australian universities (such as wikis and blogs), each posing unique attractors and barriers for ISFS. Future research is needed to examine ISFS' use of other web 2.0 technologies especially in the educational context to identify the most effective methods of improving teaching and learning productivity, and to better support active, social, and engaging learning environments for Saudis. Moreover, as technology is constantly changing, communicative applications such as WhatsApp are attracting users. Further research is needed on Saudis' appropriation of these technologies.
- The personal bias could also be considered a limitation. As the researcher is a Saudi female student in Australia, the design of the interview questions and analysis of the data was a subjective process, in which personal experience and judgment were used to accomplish the tasks. Future research could compare the use of SNS by Saudi students and students from different cultures, leading to an insight on the cultural impact of SNS' appropriation among various cultural groups.

Conclusion

The present findings revealed that ISFS perceived SNS and Facebook in particular, as a positive technology that would help them not only in their socialisation but also in their academic achievements, even though none of the participants had used FB in their studies. The study showed that ISFS' culture played a critical role not only in their use of FB (attractors), but also on the appropriation process in which the students considered FB suitable for communication purposes with friends and family, but not for posting personal photos with the majority of participants' FB friends were female. ISFS use FB mainly because of peer pressure, the media and curiosity, not their education providers. The assumption that being away from family restriction may increase ISFS' use of FB was not supported in the present study. ISFS consider their family as a reason to use FB because it helps them to communicate with family members. They consider their SNS experience is the same in Australia or Saudi and the only reason that may affect their use would be technical or social.

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