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**The Impacts of Social Media and Electronic  
Mediating: Improving Educational Outcomes for  
Saudi Women within an Electronic Social  
Networking Environment**

A thesis submitted in partial fulfilment  
of the requirements for the degree

of

**Master of Electronic Commerce**

at

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by

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## Abstract

This dissertation reports on a study about the effects of social media, such as social networks used by female university students in the context of a gender segregated system in Saudi Arabia.

The result clearly reflects that social media has a positive effect on the collaborations of students, as they are able to keep their cultural and religious values without physically intermingling with the opposite sex, which is a requirement of religion and culture.

This research was carried out through two stages. The first stage was an exploratory study carried out for post graduate Saudi students at The University of Waikato. Students from both genders were granted scholarships from the King of Saudi Arabia, “King Abdullah”. They have had the experience of studying within two different cultures, in Saudi Arabia and New Zealand. They have had good experiences within the mixed gender environment at The University of Waikato.

The second stage was action research, to diagnose the importance of social networks in the education system for Saudi females at Saudi universities. The segregation between genders in Saudi Arabia is a big issue at universities but with the appearance of social networks such as Facebook genders can interact easily without being physically in the same place.

The action research took place through three cycles at three different universities; King Saud University and Imam University, which are public universities and the last cycle in private Universities, in Riyadh.

The results collecting data revealed that electronic social networks could help promote collaboration between both genders in Saudi Arabia. Both genders felt more comfortable dealing with the opposite gender under the umbrella of education without harming their culture or religion.

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## 1. Introduction

The rapid development of technology has provided a new dimension in how people accomplish their daily activities. Social network is a technology which is prevalent in modern society, has simplified interaction between peoples of all ages in society. A social network is designated as a social system which is composed of individuals or organizations which are connected together by an explicit brand of interdependency (Tatnall and Jones, 2009). The interdependency can be in terms of affinity, friendship, common interests, dislikes, common beliefs, knowledge or financial exchange among other interests. Major social networks include; MySpace, Orkut, Bebo, Facebook and Cyworld, although others such as Wikis, Blogs and Really Simple Syndication, RSS has gained prominence in the institution of higher learning. Social networks provide simple accessibility due to the fact that they have been built on Web.20 platform (Schepp and Schepp, 2009).

In universities, social network technologies have presented a great potential in their capacity to transform learning. Perhaps due to its nature of interactivity, prompt and holding of ubiquitous abilities. This means they can be used to provide avenues for students and an instructor's participation create pressure for new institutional arrangements, resulting in practices and frameworks that will establish collaborative participation in the learning process (Cox et al, 2003).

With the introduction of MySpace in August of 2003 and Facebook in February 2004, which were the major players in the social networking platform. To state the popularity of these platforms, MySpace today has over 34 million users, as of March 2011 and a revenue in excess of US \$ 385 million (2009 est.) while big brother Facebook leads the pack with over 600 million users, revenue in excess of US \$ 2 billion and ranked as the # 2 most visited website in the world (Alexa.com, May 2011). With the recent implosion of micro blogging websites such as Twitter (200 million users, March 2011), the online social networking space is seeing some heavy activity.

Social media tends to be short and informal unlike email. Additionally, search engines and crawlers are not able to access email records due to privacy but profiles of bloggers and social networking website members are optionally available to be indexed.

And as the logic follows, where there is honey the bees are sure to follow. Corporations, individuals and entities from all walks of life joined the bandwagon of social networking, where every website literally has a blog, twitter feed that others follow or a MySpace/ Facebook fan page that people can “Like” and comment on.

The educational sector has also taken up to social networking by storm and this is reflected in the discussions that students have of a particular topic and the willingness of peers to blog and contribute about certain topics.

Social networking has become one of the most powerful tools; university as well as school students are using these tools to interact among themselves and with the institutions, thereby representing a mesh type approach. As time passes, the average age of these tool users decreases and it is not surprising to see primary school students using such means of communication in their formal educational lives.

As of 2011, a large number of Face book users are in their teens and represent primary, secondary and university students. Hence, with an appropriate understanding of the role that these technologies play in the lives of their students, colleges and schools can interact constructively and market selective information, thereby achieving many goals at the same time.

Moreover, Eiz Adin (2011) reported that the number of Arab people using Face Book has increased by the mid of this year 2011. They reached 27.7 million users according to the second report of the social media in Dubai. He suggested that this increase was attributed to the changing of the social network purpose. Arab people found Face book to assist them in the political practices, regardless of its intended purpose of social networking (Eiz Adin,2011). Twitter also has

noticeable attraction from Arab users, as it reached 1.1 million users by the middle of the year 2011. The report listed some countries that have great numbers of users of Face Book such as Arab of Emirates, Qatar, Kuwait, Bahrain and Lebanon.

## **1.1 Importance of the Topic**

This topic highlights the issues facing the electronic media in the Education sector for Saudi women. Those women have a strict religious culture which prevents them from interacting with the opposite gender, especially in the schools and universities. In Saudi Arabia there is a lack of qualified women lecturers in some subjects which force the university to provide a male lecturer to teach female students. In this case they use a TV screen in the female classes to view the lecturers without both genders mixing in the same place.

In the female classes, there are microphones, so they can use them if they need to ask any questions, so it is one-way video and two-way audio. Social networking can play a big role in such types of societies that have religious and cultural sentiments to uphold.

There is a lack of literature about this topic and scarce research done, if any is from a Western perspective. A Saudi woman who has had many years of real experience in the education system of Saudi Arabia will carry out this research.

As the social network became important aspects in the Arab World. The new generation is more open to the World and has become more affective through social networking. This is where my problem statement that forms the basis of my thesis stems from and is described as follows

## **1.2 Problem Statement**

The study attempts to answer this question by looking at the potential role of social media to females in the Saudi Arabia university education sector, through analysis of the perceptions of Saudi students in mixed gender university courses in

New Zealand, and analysis of the outcomes of an action research study in a university in Saudi Arabia where social media was used to supplement the existing constrained student to student, and student to lecturer communication channels under the traditional gender segregation of male and female students.

*Does social media help in improving educational outcomes  
for female university students in Saudi Arabia?*

## 2. Literature review

When taking into consideration social networks, it is important to keep a focus on the topic of Information sharing and Privacy on sites such as Face book. When participants join the social network, they often reveal private information about their personal lives that can have major consequences on their private lives. Many manage their privacy concerns by trusting the ability of their platform to keep their information secure (Acquisti, Alessandro, Gross & Ralph, 2006)

In addition, reflections of the real world community in tandem with the social networking world need to be studied. Social network phenomenons such as the small world effect, clustering and the strength of weak ties have to be studied taking into consideration the target audience (Adamic, Büyükkökten & Adar, 2003).

### 2.1 University Learning Processes

Extensive discussions and opinions have emerged in the field of e-learning, with special attention tied to the role of social networks to determine the administrative and educational approach of universities. According to Bartome (2008), the effectiveness of social networks has been noticed in administrative processes such as; student admission, fees payment, registration among other important university services. The use of social networks in the university learning process is increasing at a tremendous rate; the internet experience is surging daily. Lecturers, students, administrative personnel are encouraged to familiarize themselves with different social networks tools which are available on the internet to tailor the learning process (Ana and Wartman, 2009).

Schepp and Schepp (2009) illustrates that the emergence of web 2.0 has revolutionized the learning process from the conventional top down approach, traditionally embraced by lecturers, to a network knowledge approach, where lecturers have altered their roles from being instructors and facilitators of the

learning process. Perhaps, it is evident that the mainstream instructional approaches do not exist in attaining the needs of preparing students to operate successfully and satisfactorily in the modern labour market (Bartome, 2008).

Further, Bartome (2008) elaborates that the use of social networks in the university learning process is regularly reinvented to adapt to new and innovative applications of information technology. These efforts in the learning process mainly focus on creating efficient and sound systems, besides simplifying course delivery by aligning learning process and technology. According to Degenne and Force (1999) social networks in the learning process are constructed on a discrete pedagogical model, which enhances personalized and social strategy, whereas leveraging emerging technologies such as the web 2.0 tools. Hence, the social networks have not only impacted on the learning process but also shaped the structure of lecture delivery on the parties involved i.e. the academic fraternity. Social networks offer dynamism and personalization of the learning process, hence, the term Personal Learning Environment, PLE, can be appropriate to invoke, using unique tools and social networks. Dalsgaard (2008) illustrates that “social networks enables a student to determine the rate crafted on his or her unique insight, needs, experiences, and differentiate known from unknown, recognizes resources to stimulate learning efforts and reinforces personal beliefs”. In this case, social networks utilize technologies such as wikis, discussion forums and Blogs to establish learning process among university students.

### **2.1.1 Methods to Measure Learning, Outcomes under Various**

#### **Experimental and Field Situations**

Sustained analysis of social media in enhancing learning outcomes in university classes, anchored on overall educational objectives, helps to verify that the technology is adaptable, useful and relevant.

The analysis establishes change if strengthened goals in learning has to be achieved. Assessments support lectures and administrators of learning institutions to identify incremental improvement on a student outcome, as well as changes in course delivery methods. Hence, gradual progress, rather

than immediate transformation is evident in yielding long-term results and change which is appropriate.

Tatnall and Jones (2009) derive that continuous assessment entails collecting, interpreting, documenting findings and aids in design to determine the effectiveness of a given technology in achieving the learning outcome.

Consequently, the role of instructors should form part of the evaluation group. Social networks have altered what instructors do. It has increased new roles and strength to mode of delivery for lectures; hence this has altered the role of instructors. In a revamped educational system, the time spent by instructors with students makes them accumulate extensive data about a given type of technology and its impact on a student. Instructors are the first to comment on student confidence and morale, surged content comprehension and more empathic response to global happenings using the social networks. The role of instructors underwrites the reality of the widespread use of social networks and in evaluating what and how a student can embrace modern technology applications. Instructors measuring productivity by using technologically advanced tools can be a reliable choice to determine the effectiveness of the social networks impact on the learning process.

The effectiveness of social networks is ingrained in the benefit of other university advancement efforts. A university's aim of providing appropriate education to students entails many facets. This facet includes; diverse technology, administrative procedures, classroom organization, social factors, instructor's pedagogical approach, logistical factors and curricula are some of these facets. This phenomenon in university learning process can be critically assessed to determine the penetration of the social networks effects at the student, institution and community level. The assessment can be achieved through developing a learning benchmark system.

### **2.1.2 Adult Learning**

The modern learning environment is distinct from the generation earlier. Fast technological changes, increased job security and enormous organizational expectations, that an employee should be more agile, needing adults to continue learning throughout their lives. Study on adult learning has indicated that adults learn distinctly from younger students (Luikart, 1977). They have special needs; and these needs have to be factored in the present technological development brought about by the social networks. The use of social networks in adult learning supports teachers and extends educational prospects stretching and broadening what new groups of younger students have natively assimilated technologically.

Social networks such as Facebook, Wiki, Yammer, Twitter, Blogs, podcasts have been embraced to deliver education to adult learners. These processes have occurred as the result of the internet (Papen, 2005). Social networks have increased self-education and promoted anonymity among the adults. Adults are able to share with other adult learners regarding a certain area of interest, hence, through these interactions, they can increase awareness. According to Papen (2005), social networks support commitments towards sharing information, instigating newcomers and lengthening shared knowledge through aspects such as shared experimentation, problem solving and liberated inquiry.

Another area of interest about social networking is the issue of anonymity. Social networks do not really embrace face to face contacts; hence, it is simpler for an adult to be open and honest about a phenomenon in the context. However, anonymity with social networks may distract adult learners because some people may opt to disseminate false knowledge (Papen, 2005).

### **2.1.3 Impact of Socialization on Learning, outcomes in University Classes**

Social networks have become increasingly integrated in the education systems of most universities, hence, creating a multiple impact on students, educators and administrators.

The chief role of social sites is to provide means for an individual to make links with others. In an education setting, social networks have surged sharing of knowledge between lecturers, students and among students themselves, maintaining or finding old and former classmates and enhancing professional growth and development in a student area of discipline. Social sites such as linkedin and Sparkpeople, commonly embraced in higher learning institutions, thus offering a student opportunity to network with educators, other students within and outside the learning environment.

Social networks have established a new social dimension hence enabling students to develop increased awareness. By interacting with social network sites, student knowledge on global issues is guaranteed. Students develop new opportunities in exploring social norms, develop technical skills and explore common interests. By constructing a public image, a student is exposed to the challenge of defining themselves (Degenne and Force, 1999). This is because, most social networks prompt users to create a profile, which exposes essential aspects of their identity memberships in different groups, they value and likes and dislikes among others. This is because these sites are visible to instructors, parents and the public in general. Students who are paranoid of their vulnerability are able to determine which information is appropriate to publish.

On the other hand, social networks have been blamed for consuming the most time of students, of which they may otherwise be doing other important and productive tasks, such as studying, doing research or engaging in group discussions. Whereas the serendipitous use of social networks and its related applications in universities seems worthwhile for learning growth, they possess a serious social threat that may otherwise jeopardize the main goal of the

technology. Facebook, a common social network site, has been on occasions summoned to court over major privacy issues (Delta, and Jeffrey, 2002). Major social networks, for example, Face book has hundreds of million users hence these users have different opinions, attitudes, mindsets adding on this, Facebook provides several tools and resources which monitors the activities of every user. Hence, encompassing the experience that students have with social networks sites such as MySpace and Face book, it is obvious that integrating social networks in a university learning environment might be another Face book with the university periphery promoting less learning or leading to an inappropriate learning culture (Delta, and Jeffrey, 2002).

## **2.2 An overview of Saudi Arabia systems**

Saudi Arabia is a Muslim country located in the Middle East. Moreover, it is a special place for all Muslims around the world because it has the two holy mosques in Makah and Madinah. Makah is an exceptional city because of its religious and historical significance. Muslims from all over the world come to Makah to perform their pilgrimage rites here. Saudi Arabia is also widely considered to be a closed environment with strict culture and legislation. It is the only country that has not been colonized by western countries. This could be one of the reasons for the culture to be closed and the explanation behind the people not accepting westerns ideas.

The segregation between genders is one of the hot topics for Saudi people and always rekindles heated debates. The segregation between genders is a common practice in schools, offices and universities. The segregation is also a topic discussed since the time of the Prophet Muhammad (Peace be upon him) more than 1,400 years ago. The issue is mixed between culture and religion. The rise of social networking lets the participants of various genders and ages intermingle virtually without being physically in touch. This in itself brings about various debates on the religious circles and questions of its permissibility.

### **2.2.1 Education system in Saudi Arabia**

It is not surprising that a country such as Saudi Arabia, which mainly follows the Islamic law, is to have the education system under the umbrella of religion of Islam. All the curriculum in Saudi schools are based on Islamic regulation, which helps the individuals to gain the good skills , build the Islamic nation and assist the development of the society from different directions such as socially, economically and culturally (Education and development in Saudi Arabia).

Moreover, Prokop(2003) criticized the education system in Saudi Arabia and highlighted that the content of teaching in Saudi schools are based on the religious foundation. He mentioned that the “Ulama” who are religious people and have the authority in answering religious questions, play a significant role in controlling the girl’s education and their issues regarding to their socializing in the public life. After that he addressed the main subjects in Saudi Schools such as; Quran (Holy Book), Tawhid (the concept of monotheism to Allah), Tajwid (the rules in reading Quran), Tafsir (the interpretation of Quran), Hadith( prophet Mohammad words) and Fiqh( principles and law of Islam).

Therefore, all these subjects are carried out from the elementary schools as it covers 30% of their week hours, 24% for the intermediate schools and 35% for the secondary schools. Prokop continued his criticizing about the history subject taught in Saudi Schools because it focuses more on the Islamic history and the history of Saudi Arabia. Moreover, the Arabic literature is based on the Islamic teaching. It is expected from the Saudi students that Quran will be memorized, interpreted and applied to all aspects of daily life. Therefore, religion is not separated from disciplines but it is part of education, economics, sociology, psychology, medicine and law.

### **2.2.2 Higher education**

Higher education is not new in the Arab World and after the 7<sup>th</sup> centuries and the Islamization era in the Arab World there were local religious schools called

“Madrasa” and considered to be the main institution of higher learning in the Middle East. There were intellectual movements flourishing of western scholarship to the Arab world after the 12<sup>th</sup> centuries.

It is obvious that the Arab World experience has being revolutionized in the education sector. For example in 2003 there were 8 universities in Saudi Arabia and in 2009 there are 100 additional universities and colleges which is result of the rise in the budget of higher education up to \$15 billion for a 23 million population (Romani, 2009).

The minister of high education Alangri (2011) pronounced that there is about one million Saudi students studying at universities and there is an increase in number of 60% of Saudi girls in the high education programs. This reflects the huge achievements for Saudi girls inside and outside the country. Moreover, he continued that the opportunities for Saudi girls to get a scholarship are the same as the boys’ opportunities.

### **2.2.3 Social Networking and Religion: Do they Mix?**

A brief overview is mentioned of the religious and cultural background of the subject research, geographic location based on which the affinity to social networking is addressed.

Islam is the dominant belief of Arab culture and society (Hill, C., Loch, K., Straub, D.W. & El-Sheshai, K. 1998). The main religion in Saudi Arabia is Islam. All Saudis are Muslims and follow the law of Allah (God) and Prophet Mohammad’s (Peace be upon him) orders. Their law is constructed from the Holy book, “Quran” and Prophet Mohammad’s (Peace be upon him) words, “Hadith” (Education and development in Saudi Arabia).

Islam is a religion that encourages its followers to educate themselves in order to *flourish* the civilization. Moreover, the Arab peninsula is the embodiment of the religious society since the eighteenth century. This society thrives on the idea of

following God's orders and considers Prophet Mohammad as their role model for mankind (Doumato & Posusney, 2003).

#### **2.2.4 Segregation between genders**

One of the special characteristics of Saudi education is the separation between men and women except the kindergartens and some medical schools. This separation is related to the respected social status of women in Islam. Mixing between genders is not acceptable from a Muslim perspective and the Grand Mufti for Saudi Arabia from 1993-1999 wrote about the danger of mixing genders in the work force.

The Grand Muftin Bin Baz addressed the danger of mixing genders, which could affect the family and society. He argued that Quran provided some characteristics about women and the importance of following Allah's orders. Each gender has its own character that suits them in managing their life in order to ensure balance from inside and outside home.

According to the male characteristics, they are more capable to work outside home and are held solely responsible for the financial support of the family. On the other hand, women are suitable for managing household affairs and are the most capable caregivers. Women can earn a wage, but it is not expected for them to contribute to the financial management of the home, unless she so desires. According to Bin Baz this balance ensures successful, quiet and safe environments for their kids and society.

Moreover, if the Muslim women and men would like to work outside, ideally they need to choose suitable places for them and work with the same gender. This restriction is derived from the Quran orders for females such as: women need to wear *Hijab* or *Jilbab*, which is a dress to cover their bodies and their faces in order to protect them from strangers when they need to go outside their homes.

There are more orders in the Quran for women, such as that they should not have any decoration on their dresses or makeup on their faces in front of males who are not *Mahram* (is the male relative such as; husband, father, brother, son, uncle and nephew). This order is important in the Muslim society, because women adorning themselves for other men outside of a legislated relationship could develop to unlawful and immoral affairs, unproductively breaking down the family unit and decaying the moral fabric of society.

Bin Baz used all these examples to convince Muslims about the danger of mixing both genders and how women will not be in safe environment with men. He continued saying that Islam has forbidden *Khalwah* where one man sit with one woman in close area without any *Mahram*. Therefore, all these are signs for the forbidding of mixing genders in work or study. The Grand Mufti of Saudi Arabia presently is Abdulaziz bin Abdullah Alsheikh who also has the same point of view.

Doumato (2003) argued that women are segregated from men in the public life such as; schools, universities and work. He also mentioned that women are not allowed to drive in Saudi Arabia as part of their culture.

Segregation between genders is not related to Muslim communities only; it is an issue in the western world as well. Wiseman (2008) mentioned in a study that was carried out from 46 different nations to investigate the idea of segregation in national education systems, and the results were surprising, that there are no consistent enrollment differences or achievement advantage between countries who segregate between gender and who are not.

The segregation is also compulsory in the restaurants and cafes in Saudi Arabia. Manning (2002) reported that even some American companies support gender segregation in Saudi Arabia such as McDonalds and Starbucks. Even though those companies stick to their rules in running their businesses around the world but they accept the Saudi customs.

Moreover, some of the businesses do not like the idea of segregation but they prefer the profit and winning a business in Saudi Arabia rather than not having one. They agree to have two different sections in each restaurant one for males and the other for families with two different entrances for each section. Therefore, segregation is everywhere in Saudi Arabia and is a part of its culture and religion that has hardly changed.

### **2.2.5 The introduction of a non-traditional university: A bold move**

In September 2009, King Abdullah Ibn Abdul Aziz, the current monarch and custodian of the two holy mosques in Saudi Arabia inaugurated the King Abdullah University of Science and Technology (KAUST) with an initial endowment of US \$ 12 billion following the realization of a 25 year-long dream. The opening of the university introduced a new way of studying in Saudi Arabia through the mixing of genders (Meijer, R. - 2010). This was the first time something like this has happened in Saudi Arabia and as a result of that there were a lot of people who were against the idea of free and open intermingling of sexes such as the religious leaders.

The common residents have dual opinions with some siding with the religious leaders and in favour of a strictly closed environment while others siding with the idea of an open environment. Those leaders thought that this movement is a way of westernising Islam.

## **2.3 Technology**

### **2.3.1 Growth of Internet Accessibility, World and Saudi**

People access the internet through various methods; common access methods used presently are leased lines, broadband, packet radio, fiber optic and WiMax connection, among other methods. Internet is used globally and has been on the rise each-day (Forester, 1985). With market permeation, the segment of fast growth is diminishing in developed countries, whereas in

developing countries such as Asia, Latin America, Africa and Caribbean it is increasing.

Many international organizations for instance the United Nations has argued that internet access is a human right. Sustaining this assertion, some countries such as Finland, Greece, Spain and Estonia have already entrenched it to form part of human right to their respective countries (Heeks, 2001).

Margetts (1999) argues that, although the internet has been evolving for over forty years, its impact in the Middle East has been a recent phenomenon. In Saudi Arabia, internet access to its citizens was achieved in 1999. Since its introduction, the government has played an important role in influencing its use by exerting more control. The government only permits its citizen to access the internet contents once it feels confident that it is safe and works in tandem with Islamic culture (Heeks, 2001). The Saudi government has implemented internet filtering strategies by instituting proxy servers between the government owned internet connection and the servers connecting the rest of the world. The Saudi government has censored internet sites which includes; sites with provocative attires, holocaust sites, sites linked to opposition political groups, Islamic extremist's websites and free web hosting providers among other sites (Margetts, 1999). However, other sites such as alcohol related sites, religion and media are sparingly blocked. Despite the government endeavour of streamlining the moral of Saudis by filtering specific sites, it does not filter sites which appear outside the prohibited context.

Another issue, which has been, linked with internet access in Saudi is the language. The medium access language of the internet is English accounting for the majority of home pages on the internet. Saudis who are not versed in English are disadvantaged. However, recent development in software production has eased the problem of access, although some of these software applications have reported errors.

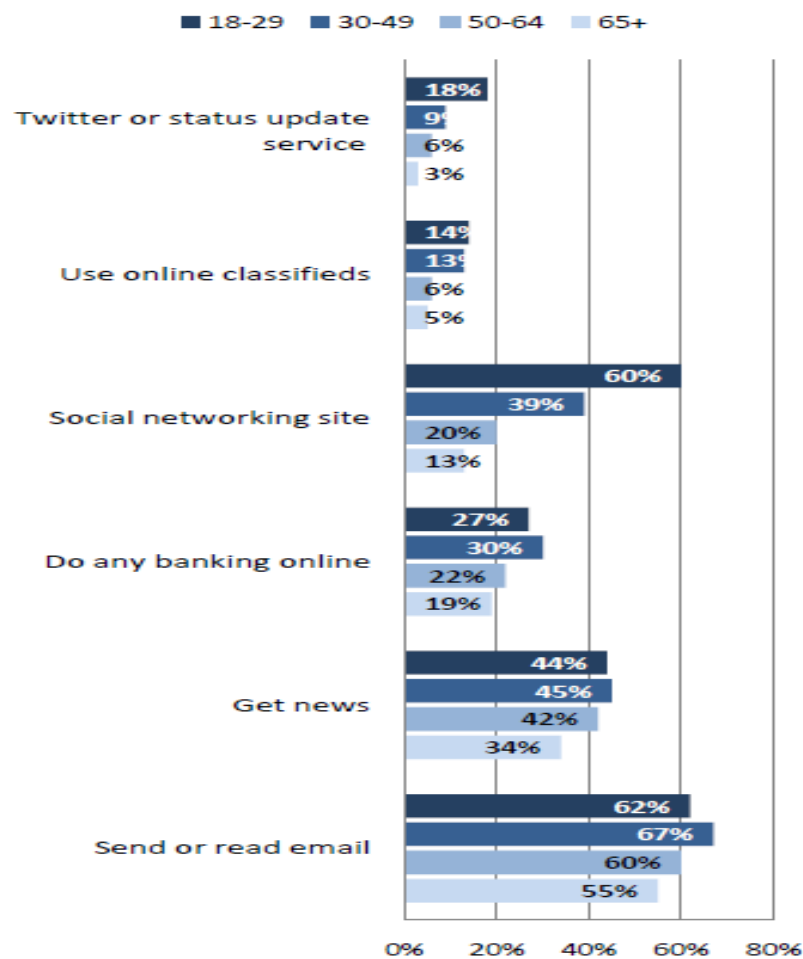
In the year 2010, Pew Research Center's Internet & American Life Project estimated that email remains the most popular activity for older internet users, but

amongst younger users, social networking forms a major part of their online life surpassing email. Websites like Face book and LinkedIn are becoming popular amongst the youth. They have also found out that social networking sites frequented among adults aged 50 and over increased by nearly two fold in the past one year.

A typical day from the research carried out by Pew in the life of people comprising of four age groups has been detailed below, grouping people into age categories 18-29, 30-49, 50-64, 65+(see figure 1).

### A Typical Day: Where social media use fits in

The percentage of adult internet users who do each activity in each age group



Source: Pew Research Center's Internet & American Life Project, April 29-May 30, 2010 Tracking Survey. N=2,252 adults 18 and older.

**Figure 1. Social Activity by Age Group**

Other research gathered by the Pew Research Center ([pewresearch.org](http://pewresearch.org)) has been quoted below:

*“Social networking use among internet users ages 50 and older has nearly doubled - from 22% to 42% over the past year”*

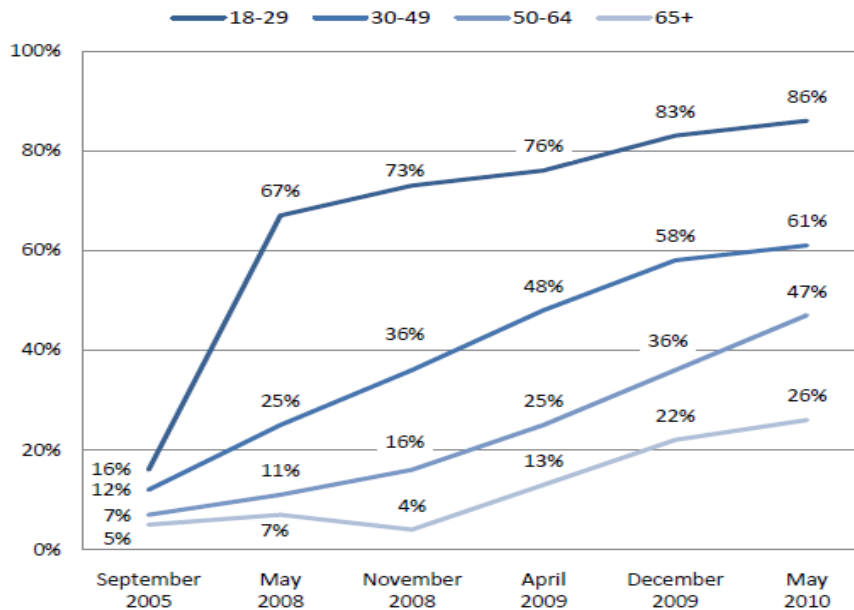
*“Half (47%) of internet users ages 50-64 and one-in-four (26%) users ages 65 and older now use social networking sites”*

*“One-in-ten (11%) online adults ages 50-64 and one-in-twenty (5%) online adults ages 65 and older now say they use Twitter or another service to share updates about themselves or see updates about others”*

*“Email and online news are still more appealing to older users, but social media sites attract many repeat visitors”*

These findings give us an indication of the popularity of social media with a particular focus on social networking and micro blogging websites (see figure 2).

**Social networking use continues to grow among older users**  
*The percentage of adult internet users who use social networking sites in each age group*



Source: Pew Research Center's Internet & American Life Project Surveys, September 2005 - May, 2010. All surveys are of adults 18 and older.

**Figure 2. Percentage of Social Networking Users by Age**

### 2.3.2 Technology in Education

Educational technology is widely used in the classroom today. A few decades ago, one would never expect a projector to be commonplace connected to a notebook and users sharing notes over Bluetooth or connecting to Moodle to unify the education platform.

Technology has become a part and parcel of our lives. From the phone that we use every day to high end terminals, every walk of life uses technology extensively. And this is not limited to the educational sector but even banking, hospitality, corporate and other sectors depend on technology heavily for their business activities.

When you tell a young pupil that schools need to limit the use of technology, he or she would not understand the ramifications of such a move and it would sound illogical to them at first. However, universally parents and pupils believe that the internet helps them collaborate even better and understanding things in a picture

or a video demonstration is much quicker and efficient than a 2d paper explanation.

A large number of people use the internet daily to conduct a high percentage of their daily activities and this is also permeating into the educational sector. Technology can assist teachers in addressing the shortcomings of students using intelligent analysis and patterns. Educators need to keep in pace with a future that would not only use excessive technology but would totally depend on technology at its core. There exists no difference in internet access better poor and well off at school anymore (National Center for Educational Statistics).

On the other hand, others argue that placing computers in the class room is entirely wasteful (source: Oppenheimer (2003) in his book “The Flickering Mind: The False Promise of Technology in the Classroom”). Studies are moving from paper and pencil problems and correction to more practical methods of assessment. According to Criss 2006, he believed that teachers in the class rooms understand the benefits from using computers more than any theoretical studies. Teachers find it difficult to get the students’ attention when they are on computers. Moreover, teachers need to be trained on the suitable content to display on the computers for their students (Criss ,2006). A careful plan needs to be created that addresses all the pitfalls and brings about changes in the teaching method to the benefit of students.

Social Networking players are a large part in technology and today they integrate even more wherein students that access e-learning platforms learn a lot more if they are socially equipped and integrated than rather they being silos of software.

### **2.3.3 Synchronous and Asynchronous**

A common debate exists between the advantages of synchronous and asynchronous learning methods that each support different methods. It is a general trend that the workforce of today unlike earlier needs to continually develop its skills and be highly educated. E-learning has been listed in many

studies as the catalyst that could feed the future needs of education across all groups in the world.

Some researchers have expressed concern over the quality of the student that goes through e-learning in comparison to a traditional course but research has proved otherwise and that the actual talent and output of the student is what matters, not the mode of study, assuming that the same level of quality, feedback and interaction exists.

Asynchronous and synchronous e-learning addresses typical queries similar to when, how and why to use these two modes. Providers tend to build systems without fully understanding the benefits and limitations of asynchronous and synchronous e-learning.

Asynchronous e-learning would utilize media such as email, forums and help participants access the information on demand without pushing the content proactively to the user. Synchronous communications and e-learning modes on the other hand such as chat, video conferencing provides a realistic experience for their learners but are much more costly to deploy.

There are many instances of education providers today using technologies like TelePresence, satellite links to provide a real lifelike view to the user. The basis is that e-learners need to ask queries and share information. An example, of a con of the asynchronous mode is a user wanting information before a deadline using email as a mode of communication where the reply is only presented on the discretion and timing of the addressee.

Asynchronous modes of communication increase a person's cognitive ability to process information more effectively (Robert & Dennis, 2005). On the other hand, in Synchronous communication and e-learning patterns the user responds more quickly because of the immediate response and life like interaction.

E-learners have been moving from individualistic learning to socializing and learning in groups even if they do not know it. The Web 2.0 era has forced users to increase their web presence using social media tools to be competitive and reach out to a greater audience, both on the receiving as well as the propagation related tasks. Virtual environments, blogs, micro blogs, social profiles, video sharing, chatting would be the norm in the years to come.

#### **2.3.4 Distance learning**

According to Hamel (2002), distance education is one of the most feasible, cost effective means that any university can use to meet the growing needs of colleges, universities and other educational training institutions. Mason et al, (2005) pointed out that, one of the major benefits of E-learning is to create short learning events which then can be adapted for differing learning needs and context. Kaiser (2000) stated that, different objectives can be achieved through the use of distance learning, these are; accessibility, reusability, durability, interoperability, effectiveness and increasing efficiencies.

On the other hand, there are many hindering factors towards the adaptation of E-learning, Hiltz, (1997) states that technological limitations such as the lack of computers and printers hinder the adoption of distance learning. Fahy, (2004) and Kearsley (2000) argue that, ICT hardware are pivotal to enhancing distance learning as there is a need to have a networked computer system. People living in the rural areas cannot access E-learning facilities, due to a lack of the internet facilities (Kearsley, 2000; Rumble, 2000). Telecommunication facilities also hinder the E- learning process. Limited bandwidth is another technological limitation of distance education (Chadha & Kumail, 2002).

The freedom of an individual learner is usually guaranteed in open/ distance education, the time to register, admissions and freedom to select what, when and where to study is also guaranteed. This means that the learner selects the time to

study, the learning methodology, the place of study, how quickly one studies, who to consult and whether the learning should be assessed.

Innovation also results from the use of E-learning, the teaching material is well corded to enable the student to grasp what he is being taught in school (UNESCO 2002), another major advantage of distance learning, is its ability to reach many students who can't attend schools with services they desire. Students who live far away can also be able to study with ease.

E-learning has also been seen as the futuristic education system that departs from the classroom ideals and is suitable to the modern day generation, where diversity and flexibility must be taken into account when a student is in class. On the other hand, personal issues may also hinder the adoption of distance learning. Carr (1999) stated that lack of ICT skill may also hinder the use of distance learning, in fact Hamid (2001) states that technical skills may result in frustration when using E-learning facilities.

Diana (2000) suggested that, one of the major advantages of using E-learning is that it provides a medium through which rapid changes in technology can be adapted in the learning sector. The writer also notes that, distance learning expands access to education and training, alleviates capacity constraints, as most schools can afford extra students without the need to increase the number of classes, tutors and institutions, hence they can capitalize on the emerging and growing market for education. Casey (2010) found out that new fund raising opportunities were availed to those using new technology. Colleges and universities can make money from distance learning.

### **2.3.5 Technology in Saudi Arabia**

Now a day's technology has emerged in all walks of our life. Education is one area where researchers tried to benefit from the technology to improve the learning outcomes. Higher education also depends on social networking from the

entire life cycle process beginning at admission and research of schools until alumni collaborate.

Internet in Saudi Arabia was running for the Saudi governments benefit until 1999. After that time, it was opened for the public access with regard to the Saudi culture (Altawil, 2001). The e-learning and distance learning has an interest from Saudi women. Reem addressed the importance of e learning for Muslim women because they prefer to be educated while they are in their homes and without separating them from their family environment.

Moreover, according to the report from the University of American Association for Women University there is an increase of numbers for those women who completed their degree through distance learning (Al Jazeera news, 2002).

Hence, Reem continued encouraging women who need balance in their life between home, children and education to take the advantage of technology as way of developing their skills rather than wasting time. There are advantages for Saudi women to continue their education through online courses such as there is no need to move to another place to complete your degree.

The most important advantages for women in Saudi Arabia is that they do not need to mix with men and break all the rules of their religious culture (Reem). In addition, there is an advantage from the financial part because they do not need to take their children to childcare and pay for them. On the other hand, the disadvantage of an online degree is that some institutions are not accepted from the Saudi Ministry of Education.

Kholood agrees about the importance of technology in the education system in Saudi Arabia in the era of globalization but with some restrictions. She believes that more Saudi students are open to the world through the internet, the more they fall into the danger of losing their beliefs and culture. She commented that Saudi students would be more westernized by following strange festivals such as Valentine 's Day, which they would derive from the western culture through the electronic media.

The responsibility will be on the ministry of education to encourage its students to self-learning from early ages with regard to their culture and religious awareness. Therefore, religion and culture are the most important aspects in Saudi learning, which ensure nation building for the country.

From another point of view, Alsaggaf (2004) had a study about “the effect of online community on offline community in Saudi Arabia”. This study focused on 15 Saudis between the age 15-45 years (7 males and 6 females). There are pros and cons about this study especially in a strict context such as Saudi Arabia where segregation is compulsory in real life.

Moreover, this study reveals some important changes for the participants such as they became more open-minded and have the chance to express their thinking and way of discussion with the opposite gender. Participants feel free in addressing their real names. It gives each gender the chance to understand the opposite gender’s mentality and characteristics.

Online communities provide the participants a chance to express themselves and share their experience away from the cultural restrictions, which results in appreciation from both sides. On the other hand, the con of online communities is that they spend more time on the computers and neglect their family members in real life.

Another con is that in the online community, there are some unacceptable topics, which are against their religion, and customs of Saudi could affect the person’s thinking. Alsaggaf believes that his study will benefit the Saudi culture without breaking the rules. Parents, schools and media have the responsibility of showing the advantages and disadvantages of online communities in order to achieve progress in the Saudi culture.

## **2.4 Social Networks as of Today**

Many studies have shown that time spent on social networking websites far exceed the time spent carrying out other activities online. In addition, the rate of growth in the social media sector is dramatic. The total time spent online on the internet has increased by 18% between December 2007 and 2008. In the same period however, the amount of time spent on social networking sites increased by 63% (Nielson Research).

The question that begs to be asked is “What is Social Media”. Andreas Kaplan and Michael Haenlein define social media as "a group of Internet-based applications that build on the ideological and technological foundations of Web 2.0, which allows the creation and exchange of user-generated content." [Business Horizons 53 (1): 59–68]

When two people interact, they generally do so in silos and send over offline forms of communication that do not collaborate in real time. Social networking removes this barrier to let them collaborate in real time.

Based on the various reactions to and definitions of Social Networking, there seem to be a few common characteristics that make them bind together:

1. Relatives, friends, acquaintances bonding together online forming a community of like-minded people
2. Possibility of utilizing the network to make new friends and meet people either professionally or personally.
3. Technological savvy behavior to signify development and high social standing

### **2.4.1 The Rise of Social Networking**

Just like other countries the rise in the usage of Social Networking websites in Saudi Arabia is a natural step towards the freedom of actions by users. There have been both people for as well as against such drastic usage of the tools but as long

as internet access to these websites is not restricted, one would find it very difficult to keep a control on the media and journalists as well as common people that use such tools.

There are numerous Saudi individuals that are expressive with blogs on various topics as well video postings of individuals that need to express themselves. These content types in turn spread like wild fire using social networking sites such as Facebook and Twitter that act like a web and interconnect the entire population within the kingdom and internationally. An example is of a person that decides to write on a controversial subject that affects the country and others follow with comments, like or share the content which then moves from the blogosphere to the social networking profile updates. These are then visible to the entire network of friends if commented or acted upon. In other words, both the individuals as well as the government need to be watchful of what they post and the repercussions that it can have upon the masses.

#### **2.4.2 Facebook**

Einspar 2010 suggested that Facebook could be a great tool for engaging and connecting students, parents and teachers in the learning process. This connection assists in creating a sense of belonging in school. Moreover, it encourages communication between teachers and students with the involvement of parents also. This idea was demonstrated by McDowell's observations in 2010 for class rooms. He concluded that classes who provide Facebook as a learning tool are more engaged and connected to the classroom environment.

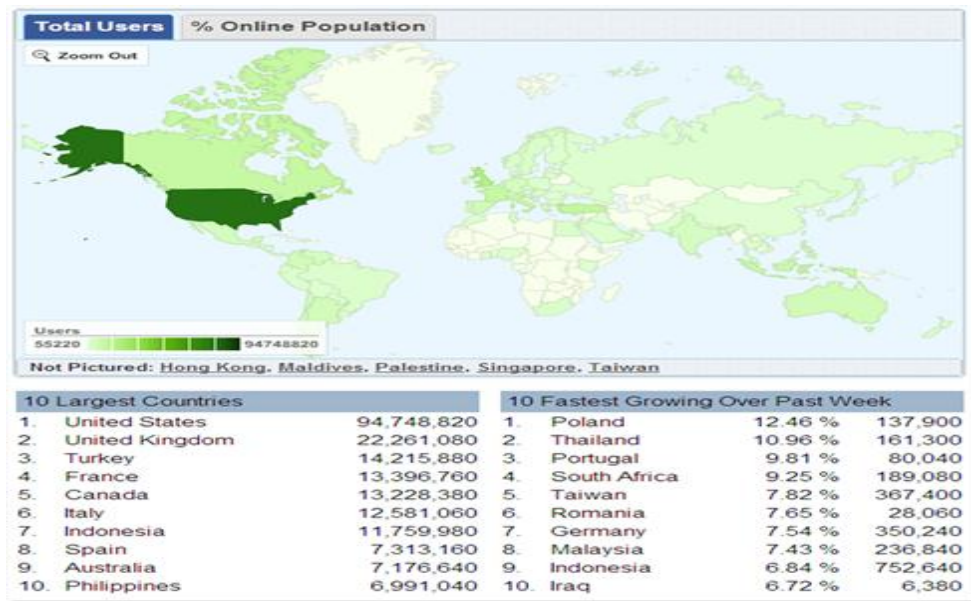
Here are a few Facebook statistics, (source: [facebook.com](http://facebook.com) / [pingdom.com](http://pingdom.com));

- Average user has 130 friends on the site
- Average user sends 8 friend requests per month
- Average user spends an average 15 hours and 33 minutes on Facebook per month

- Average user visits the site 40 times per month
- Average user spends 23 minutes (23:20 to be precise) on each visit
- Average user is connected to 80 community pages, groups and events
- Average user creates 90 pieces of content each month
- 200 million people access Facebook via a mobile device each day
- More than 30 billion pieces of content are shared each day
- Users that access Facebook on mobile devices are twice as active on Facebook compared to non-mobile users
- Facebook generates a staggering 770 billion page views per month

Facebook is one of the social networks that have great popularity with college students. It allows its users to display themselves through online profiles, which enables them to add friends and post their comments on each other's pages. Each user can view his or hers friend's profile which can assist them in finding the suitable virtual groups that suits their interest. In contrast to Alsaggaf who assumes that online communities affects the offline community relations, Ellison, Steinfield and Lampe 2007 found that online social networks would not remove people from the offline community but it would help to support relations and keep people connected regardless of their locations.

Isacsson and Gretzel 2011 have done a case study on the importance of Facebook as a mean to support and leverage in the learning environment.

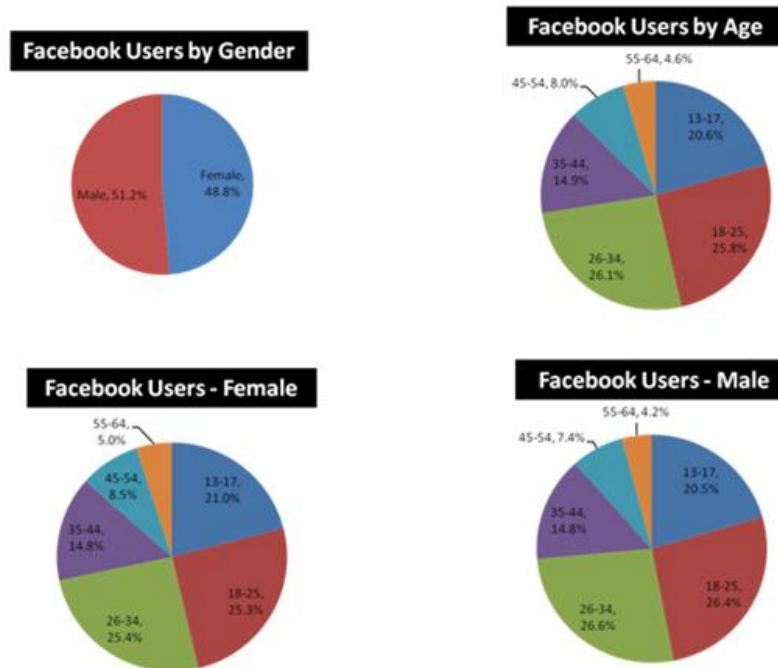


**Figure 3. Global User Population – Facebook**

629,982,480 - More than 70% of Facebook users come from outside the United States

(Source: Facebook.com / checkFacebook.com)

The figure 3 above shows us the global user population telling us that most of its users are international and not based in the US & the pie charts below show in figure 4 demographics about Facebook with respect to gender and age.



**Figure 4. Users by Gender - Facebook**

(Source: insideFacebook.com)

An important point to note in the table below in figure 5 is that the number of females online exceeds the number of male social networking users in all age categories. This would also include females residing in restrictive environments where they cannot intermingle with people of the opposite sex and hence a social networking platform gives them the opportunity to express themselves, albeit with modesty.

	Total Users	Male	Female
13-17	14,402,580	6,646,820	7,719,380
18-25	50,679,700	23,004,960	27,048,020
26-34	29,703,340	13,588,320	15,577,380
35-44	23,596,860	10,216,440	12,775,140
45-54	17,425,520	6,915,900	10,176,980
55-64	10,459,580	3,982,340	6,301,480

**Figure 5. Breakdown of Users by Age and Gender**

(Source: Breakdown of US users - Gender & Age)

As the chart above shows us, the total US Facebook population is made up of millions of people and has been divided in the age groups 13 - 17, 18 - 25, 26 - 34, 35 - 44, 45 - 54, and 55 - 64. While young adults most of whom have crossed their teens (18-25) lead the way with a combined ~51 million users (almost double the size from a year ago), the 26-34 group is now well behind with ~30 million users. According to the data from Facebook, there are ~28 million people over the age of 45 active on Facebook. These are impressive user numbers from an older demographic that continue to grow. It's important to note that the 55-64 age groups equals the size of the 13-17 group, which shows us that Facebook is used by all people from all walks of life irrespective of age.

### **2.4.3 Social Media: Difference on Gender usage and Uptake**

Social media has had a historical background about their use in society. Although, used to accomplish housework responsibilities, connection to social networks can be linked with telephone as a communication mechanism available and widely embraced at home. Telephone services have gendered connecting assumptions that women spend more time than men talking and the pursuit of women as telephone operators (Burton, 1992). Generally speaking, young women are closely linked with comprehensive and frivolous use of telephone technologies for social reasons. Consequently, women's use and impact on the growth and development of computers has been trivialized whereas the essence of computer development has been masculinised (Degenne and Force, 1999).

Women use social networking sites to expand their social relationships. According to Schepp and Schepp (2009), female participants in a survey carried out in 1997, to unravel, the inspiration of Face book users, scored highly on a social scale for posting photos on Face book (Burton, 1992). Consequently, a survey carried on a blog sustained by MySpace, found out that more women wrote blogs, family, romantic connection, health and friendships. A research on Swedish social network users argued that women were likely to show friendship in the

context of publishing pictures of their friends, naming their best friends and composing poems about their friends. Consequently, women were noted to demonstrate their relationship related to family and romantic relationship. A major analysis of gender balance on MySpace asserted that men and women tend to have a majority of “Top Friends” from the opposite gender (Strathdee, 2005).

Privacy has been a controversial issue linked to social networks users. Many studies have proven that a bigger difference exists between men and women. According to Schepp and Schepp (2009) women exert more protection on their personal information and regulate their profiles to “private”, consequently; women tend to sift information they post on social network sites. Despite concerns about privacy, studies have indicated that women are more likely to maintain updated photos of themselves. Although, men and women users of social Medias show distinct motivations and behaviours, they support some similarities. For instance, a study that investigated the veracity of information shared on social networks by college students found out that men and women were likely to give accurate information about their partners name, birth and class schedule.

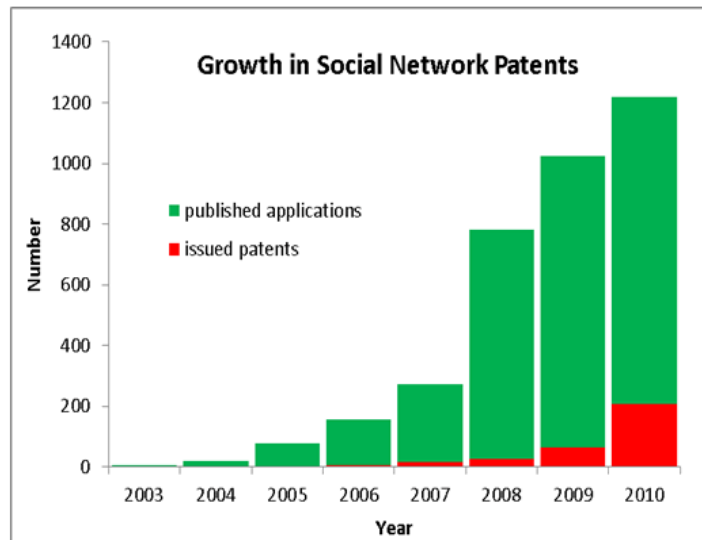
The increasing rise of social media among women than men has brought with it opportunities for more participatory and new social dynamism. In present society, social media tools have become a daily pattern in women’s lives, unifying their online and offline experiences and becoming the dominant instrument of social interaction and interdependence. According to research carried by Strathdee (2005) about 42% women in the US participate in social media compared to men. As they spend more time with social networks, women spend correspondingly less time with mainstream media.

Women, on a large scale use Face book and MySpace, blogs, forums and discussion forums and twitter becomes second, third and fourth respectively. Blogs wield an important impact on women rather than men. Strathdee (2005) argues that women's posts on blogs are more captivating, about 80% of women

spend their time online.

#### 2.4.4 What does Social Networking Comprise?

Social networking comprises mainly of building online communities and linking them together symbolizing a mesh. People with common interests and activities would come to a common forum to express themselves. Almost all social networking sites are internet based and use Web 2.0 technologies like micro blogs, video, chatting and other tools. The growth in competitive social network offerings is heating up with the growth in social network patents listed below (see figure 6).



**Figure 6. Social Networking Patent Growth**  
(Source: Mark Nowotarski, ipwatchdog.com)

In addition to keeping users in touch, social networking helps in niche networking concepts wherein a particular niche hobby or task is created as a platform for users to exploit. You can traditionally find a niche network in any topic like learning a new language, technology groups or just making new friends and keeping in touch with relatives.

There are common features that all social networking sites follow:

- The ability to post a profile including educational information
- Posting of pictures and albums
- Privacy settings that let you control who can see what
- The facility to search for members and block unwanted ones
- Be part of a group of like-minded individuals

## **2.5 . Social Networking & Learning in Education**

Many people have debated the impact of technology on education and students. They argue that technology and its tools have destroyed the individual's ability to focus on school and college. Students tend to not do all of their homework and don't pay attention in class. Some students outsource their requirements to people in another part of the city or even in another corner of the world.

Teachers on the other hand also point out that time spent in front of the computer or mobile phone leads to poor concentration and loss of focus. This leads to a lower level of communication and poor grades thereby leading many students to fail.

An experiment was carried out where the micro blogging site Twitter was used by a cohort of students in a particular class to interact with the teacher (Junco, Heiberger & Loken(2010)). Around 70 students from the total of 125 students used Twitter and the other students more traditional forms of study. Contrary to the familiar perception that students utilize social networking mainly for distractive activities, the group that used Twitter for interaction fare much better that the other group.

## **2.5.1 An explanation of Social Network Technologies aiding Learning Process**

A variety of tools has been created to enhance the learning experience in the classroom. The majority of tools are open source although some are available for commercial purposes. Major social networks have been developed on Web 2.0 platform to simplify e-learning and conventional class schedule (Bartome, 2008).

### **2.5.1.1 Wikis**

A Wiki is essentially a website created in a way that, it allows users to modify content available on the site. Universities have encompassed Wikis in the learning process because of various reasons. One of the Reasons is it supports collaborative work eliminating the old .pdf and .doc documents. Secondly, they provide learning materials in collaboration with all major relevant academic stakeholders i.e. students and lectures, simplifying dissemination of information to students thus making the work of the lecturer to update materials easy (Ana and Wartman, 2009).

### **2.5.1.2 Blogs**

Are means of dispersing information or the sharing of personal views. Universities have incorporated this process in their learning process because it has substantial benefits in the learning outcomes. Blogs are simple to use because it doesn't require prior knowledge of HTML. The lecturers use it to build an active learning culture. On the other hand, students embrace blogs as an alternative to digital assortment or a learning diary (Bartome, 2008).

### **2.5.2 Social Media in Education**

Management educators classify their students as millennial students (Reinhardt et al., 2009). This classification derived from the fact that some students were involved with computers since they were kids. Moreover, students who practice the computer-mediated communication can get better knowledge and exchange ideas rather than face to face learning (Mazer et al., 2007). Wankel 2009 has explained the different types of social media that suits the teaching approaches and issues such as Facebook, blogs, YouTube, Twitter, MySpace and Virtual worlds.

It is an undeniable fact that the rising popularity of Social Networks in education has its benefits as well as its disadvantages according to its supporters and proponents. Today, the use of the internet is an important part of people's lives. The stage has reached to such an extent that if internet connectivity is disconnected for prolonged periods of time at a school or in a corporate setting, a feeling of helplessness seems to occur and many corporations like Amazon, Facebook, Microsoft, and Google stake their entire businesses on the user being connected to the cloud.

Online social networks provide both teachers and students with a platform to interact positively beyond the physical restrictions of school or college walls. This enables the teacher to provide personal support, track as well as statistically measure the performance of the student. When disruptive technologies enter the classroom, like social networking, micro blogging, wireless devices the student gets a chance to express themselves more easily.

There is a distinction between digital natives and digital immigrants, (Marc Prensky, 2001, *On the Horizon*) where education can be reformed by helping teachers change their pedagogy considering the 21<sup>st</sup> century and the tools that are at their disposal. However, the media has a big role to play in bringing about a positive picture of Facebook, Twitter and other tools. Also, there exists some limitation that needs to be taken care of. For example, one's private life should be

private and not exposed to the world on Facebook. A certain sense of maturity needs to exist while exercising those decisions.

### **2.5.3 Mass Learning using Social Networking**

It is not pessimistic to mention that today it is hard to do business or even coordinate with students in a mass way during the learning process without the use of social networking tools, especially when your competitors are using it. Without a Twitter, Facebook, YouTube account, you are at a disadvantage when it comes to reaching out to students. It may even be impossible, unless you have killer search engine rankings, which all people cannot have.

If your blog or school website does not have a “Like” or “Tweet” button, you not only seem to not be in touch with technology but also lose out on the opportunity of free marketing. It is not surprising that today people get their information from the internet and as time passes the idea of physical newspapers and books is diminishing, especially when you have many people walking around with their e-Book readers or other table pc devices.

The late setters in the market like Google, Microsoft have understood the importance of social networking and have either come out with competitive products (Orkut from Google) or invested into the leaders to join the bandwagon (Microsoft investing in Facebook). A large chunk of revenue for all these online social networking giants is advertising and keywords that are typed or links shared are tracked that follow you in the disguise of permissible spam.

The Khan Academy is an example of how social networking has integrated with learning in a big way, to an extent that people derive their main source of education from it have been mentioned below

#### **2.5.4 Virtual communities**

Rheingold(1993) defines a virtual community as “a social aggregation that emerge from the internet when enough people carry out public discussions long enough with sufficient human feeling, to form webs of personal relationships in cyber space”. According to Rheingold (1993) computer and ICT have resulted to the development of new human social life referred to as the virtual communities. Oldenburg (1989) stated that, online communities may fill the social gap in modern societies. Jones (1995) stated that, the principal components of the online communities are community solidarity, interaction and group distinction.

Virtual online communities has resulted in the development of virtual universities, the Arab virtual university sponsored by the Arab gulf program for United Nations development which is sponsored by UNESCO provides virtual learning environment. Branches of this university are in Saudi Arabia, Bahrain, Lebanon, Egypt, Jordan and will offer Arab communicating skills, English, Islamic civilization, mathematics, social sciences, internet skills and environment.

Satellite communication will be used to network all the branches in the Arab countries. Teleconferencing will also be used to deliver lectures to all the branches. There is a website and tutors for every 20 students, the exams are administered to all the branches at the same time (Wolfram, 2006).

#### **2.5.5 The Khan Academy**

As described on the website, the Khan Academy has over 2,100 videos covering topics as diverse as K-12 math, science topics such as biology, chemistry, and physics, and even reaches into the humanities with playlists on finance and history. Each video is a digestible chunk, approximately 10 minutes long, and especially purposed for viewing on the computer (see figure 7&8).



**Figure 7. Short Training Videos**  
(Source: khanacademy.org)

4 + 9 = ?

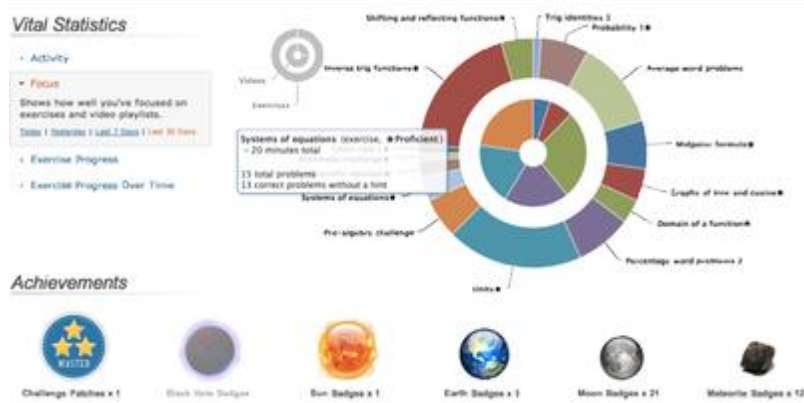
Answer

Find the distance between the points (4, -2) and (-4, 7).

$\lim_{x \rightarrow -\infty} \frac{2x^2 - 2x}{-1x^2 - 3x} = ?$

**Figure 8. Practice Exercises**  
(Source: khanacademy.org)

The website itself describes itself as “The Khan Academy is an organization on a mission. We're a not-for-profit with the goal of changing education for the better by providing a free world-class education to anyone anywhere. All of the site's resources are available to anyone. It doesn't matter if you are a student, teacher, home-based student, principal, adult returning to the classroom after 20 years, or a friendly alien just trying to get a leg up in earthly biology. The Khan Academy's materials and resources are available to you completely free of charge.” (Source: khanacademy.org)



**Figure 9. Statistics on Learning Activity**  
(Source: khanacademy.org)

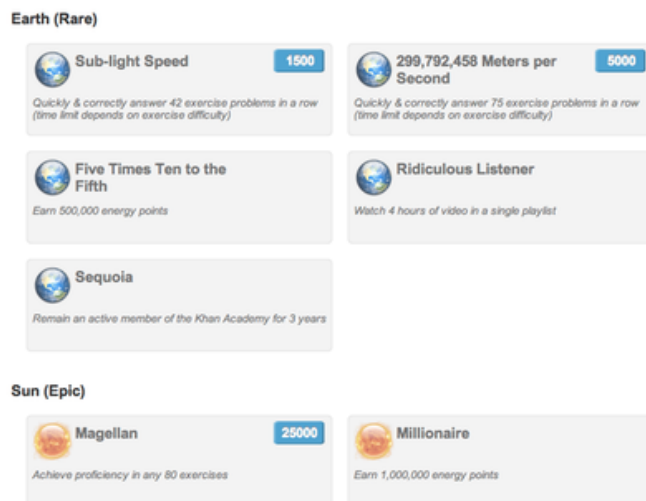
These tools provide a one stop glance of the learning activity which remains confidential but is stored to be accessed by the user and other influential peers that may help the student improve. The drill down features also allows the user to view each and every exercise problem that the student was weak in.

Statistics on learning activity form an integral part of student and teacher interaction (see figure 9). Teachers can check on the progress of their students and can even view a summary of the entire class performance (see figure 10). In other words it is now easy to find out which students are lagging and what topics need to be revised based on viewership and activity data.



**Figure 10. Knowledge Map & Progress Tracking**  
(Source: khanacademy.org)

The website also includes a knowledge map that helps you track the progress of your studies as you go along, covering all the videos and answering questions. Just like in the real world, you can either get started in a particular order or work from anywhere in the map and cover topics that interest you.



**Figure 11. Motivational Social Badges**  
(Source: khanacademy.org)

Another important social feature is the badges that are allotted to users upon reaching certain levels and achieving mastery over a subject. This can be viewed by other users motivating them to study and compete in the learning environment (see figure 11). In addition, every video has options of commenting and voting which increases user interaction and discussion on the video.

## **2.6 The gap of the literature**

The literature covered an important issue about the social media used in education and practiced in many universities around the world. Moreover, social network have become increasingly integrated in the education system of most universities and create great impacts on students and educators. There are a great focus on how gender perceive and use the social network around the world. Hence, these studies were gathered and many studies were carried out for many countries around the world, the researcher thought about her country for many reasons. Saudi Arabia is different than any country in the world because of its culture and religion. The acts and behavior for all Saudi is related to their belief and their culture. In a culture like Saudi Arabia that segregation between genders is a must everything is different. Some of the literature said that women are more opened to post their real pictures and their real identity on their social network page but when it comes to Saudi women it is different. Because of that difference, researcher was encouraged to search and investigate the real situation on the Saudi culture and how they perceive the social network in their education system.

### 3. Methodology

#### 3.1 Introduction

Methodology is the process of instructing the ways to do the research. It is, therefore, convenient for conducting the research and for analyzing the research questions. The process of methodology insists that much care should be given to the kinds and nature of procedures to be adhered to in accomplishing a given set of procedures or an objective. This section contains the research design, study population and the sampling techniques that will be used to collect data for the study. It also details the data analysis methods, ethical considerations, validity and reliability of data and the limitation of the study. This study went through two different phases. The first phase carried out to focus group interviews for Saudi male and female students who experienced studying in a mix gender university in New Zealand. The second phase carried out action research within three different cycles in different universities in Saudi Arabia

#### 3.2 Research philosophy

For this part, choosing a philosophy of research design is the choice between the positivist and the social constructionist (Easterby, 2008). The positivist view shows that social worlds exist externally, and its properties are supposed to be measured objectively, rather than being inferred subjectively through feelings, intuition, or reflection. The basic beliefs for positivist view are that the observer is independent, and science is free of value. The researchers should always concentrate on facts, look for causality and basic laws, reduce phenomenon to simplest elements, and form hypotheses and test them. Preferred methods for positivism consist of making concepts operational and taking large samples. While on the other hand, social constructionists hold the view that reality is subjective and it is socially constructed and given meaning by people. The researchers should concentrate on meaning, look for understanding for what really happened and develop ideas with regard to the data. Preferred methods for the social constructionists include using different approaches to establish different

views of phenomenon and small samples evaluated in depth or over time (Saunders, 2009). For the case of analyzing the impacts of Social Media and electronic mediating to improve education outcomes for Saudi women in Electronic mix multi genders, the philosophy of the social constructionists was used for carrying out the research. Because it tends to produce qualitative data, and the data is subjective since the gathering process would also be subjective due to the involvement of the researcher.

By using the quantitative approach, the researcher would need to collect a volume of data and analyze the relationship of the data, and then the data would be manipulated into trends or patterns. Next, the researcher would use standardized approaches that structure the data before it is analyzed. Examples of quantitative approach include experiments, surveys, formal methods and numerical methods. By using qualitative approach, the researcher would collect more in-depth data and aim to explore understanding, meaning and experience. The data represent the feelings and the views for a qualitative approach and are not integrated in the opinion poll. Besides, it is difficult to analyze by standardized methods. Case study research, action research and ethnography are some illustrations of qualitative methods (Easterby, 2008).

The most customary demarcation between the uses of quantitative and qualitative research especially in the social sciences is that qualitative procedures are employed for illustrating confounding quantitative outcomes or for exploration (i.e., conjecture-engendering). On the contrary, quantitative methods are being employed to evaluate theories. Some critics think that the use of a quantitative method of analysis has the purpose of offering many illustrations, precise and reliable evaluation mainly through centered conjectures, applied mathematics and evaluation tools. On the other hand, qualitative data is normally tedious to display on graph or in mathematical terms (Bryman, 2003). For program research and policy evaluation, qualitative research is frequently employed as it can offer solutions to some significant questions more effectively and efficiently as opposed to quantitative approaches. This is especially the case for comprehending why and how some results were accomplished (not just what was accomplished) and also for replying to some significant queries about pertinence, unplanned effects and

impact of processes such as: were anticipations justifiable; did procedures function as anticipated; were chief policy makers able to do their jobs; did the program create any unintended impacts; and so on.

During the research process, qualitative approaches have the benefit of permitting for more multifariousness in the capacity to adapt to new developments as well as in responses of research itself (Bryman, 2003). It is to be observed that qualitative research can not only be time-consuming but also expensive to conduct; many fields of research espouse qualitative methods that have been purposefully developed to offer more cost-efficient, succinct and timely outcomes. In collecting the data, qualitative researchers may employ varied overtures, like narratology, classical ethnography, grounded theory practice, shadowing, or storytelling. In other methodological approaches, qualitative procedures are also generically present, like actor-network theory or action research. Contours of the data gathered can include group discussions and interviews, reflection field notes and observation, various pictures, texts, and other forms (Bryman, 2003).

### **3.3 Research design**

For research methodology, the choices of the two approaches: deductive and inductive approaches were used for carrying out the research (Easterby, 2008). A deductive approach is described as a study in which the theory is tested by the empirical observation, and is referred to as moving from the general to the specific. Deductive research establishes a theory and then checks on the data; it uses quantitative data and it is a very structured approach. On the other hand, inductive approach is a study in which the theory is developed from observation of reality and is the opposite of deductive research; it moves from the specific observations to the general statements. This study is mainly used as an inductive approach for the case of analysing the impacts of Social Media and electronic mediating to improve education outcomes for Saudi women in Electronic mix multi genders because the theory is developed from the observations of the reality. This research used qualitative methods to collect and analyse the field data. The use of qualitative research helped to explore the impacts of social media and

electronic mediating to improve education outcomes for Saudi women in electronic mix multi genders. Moreover, qualitative research also assisted in gaining a real insight of the culture of education for Saudi students and helped to understand the results of this study.

### **3.4 Research approach**

Qualitative research is a way of research question captured in various academic fields of study, conventionally used in the social sciences, but also in research on market and other areas (Snell & Dean, 1992). The qualitative method investigates the question as to how and why decision making is carried out; hence, focused and smaller samples are more frequently preferred to huge samples (Skinner, 1953). On the particular cases studied, qualitative methods produced only information and any more general findings were only conjectures (guesses on informative). Quantitative methods on the other hand verified the validity and truthfulness of the hypotheses (Romzek, 1989). Creech (1995) further asserts that qualitative methods can be explained as a source of data or an explanation based on the dimensions of the graph or a non-mathematical data collection.

### **3.5 Data collection**

There were two stages involved in collecting the data. The first stage relied on several focus group interviews, which took place in New Zealand at The University of Waikato. The second stage of the data collection process involved an action research study with three different class situations and interventions at three universities in Saudi Arabia. The universities were King Saud University, Imam Mohammad University and one private university. The participants in each stage were Saudi female students and both female and male lecturers at the universities. Students who participated in this study were mainly undergraduate students from different majors. All participants were given a consent form to explain the aim and the process of the study. Each stage has a consent form see appendix A.

The language used in collecting the data was the Arabic language because it is the mother tongue for both researcher and participants. The consent forms, interviews questions and face book pages were translated in Arabic.

### **3.5.1 Stage one**

The first stage of the research was an exploratory study of focus group interviews, one for the males and the other for the female Saudi students in New Zealand. A focus group interview is a qualitative research technique; hence, the research was started in New Zealand, because there are a large number of Saudi students including males and females who came to study at the University of Waikato. This was a good chance to gather some background information about their learning experience. The Saudi students in New Zealand have a comparative learning experience due to the fact that they came from diverse cultures and different education systems. The focus group participants were mainly post graduate students at Waikato University who had experience on online papers during their study. Those post graduate students had the learning experience in two different situations. They studied their Bachelors in Saudi Arabia and were granted scholarships from the Saudi government to complete their higher education overseas. They had the choice of New Zealand putting in their mind the huge difference between cultures.

A suitable way for gathering the information was focus group interviews which is a qualitative research technique. This type of technique is mostly used in marketing researches to reflect the customer's attitude with regard to new products. The main reason for using the focus group in this research is different from the decision to use the focus group in the marketing researches; for instance, it aims to get basic information from the Saudi students' experiences in two different cultures. Moreover, the focus group interviewees were selected carefully as they shared the same situation. According to Krueger and Casey (2000), focus groups could be more naturalistic. In other words, it allowed participants to speak freely without controlling them. One of the advantages of focus group interviews is that, it gave the researcher a chance to observe the actions, body language and

facial expressions which were relevant in explaining the participants' messages about what they wanted to say. The goal of focus groups is to get an overview of the human behaviour with regard to generalizing the results. Focus groups are a social type of interviewing, each participant is involved in the conversation and they can share, agree, and disagree about others opinion. Focus groups are more flexible in the manner in which it leads to conversations, thus, the participants have the right to talk, laugh and tell personal stories. It is more focused on how people say their ideas rather on what they say (Bell & Bryman, 2007). Focus group interviews offer the opportunity for participants to communicate and interact with each other rather than being isolated with their opinions (Catterall & Maclaran, 1997). These conversations need to be focused on the main topic and that is why an interview guide was needed in order to get the significant data from the participants.

Krueger and Casey (2000) further suggested that the focus group participants should have similar characteristics and should be interested in one topic. In this research the participants were Saudi students, both male and female who shared the same culture and beliefs to ensure the similarities of the characteristic. In addition they were post graduate students who had enough experience in studying in Saudi Arabia and New Zealand to ensure the qualification similarities. There were two focus groups; a male and a female group, which could increase the level of freedom for both in terms of expressing their feelings and sharing their experiences in front of the same gender. Each focus group had around 4 to 7 participants, which actually is the preferred size for the researchers to gain in-depth information from each participant (Greenbaum, 1998). The estimated time for each group was around two hours which was enough to increase the opportunity for participants in expressing their feelings and points of view. There was plenty of time hearing each participant's voice and point of view. In addition, each focus group was from the same gender for cultural prescription. The segregation of the two groups was derived from the culture of Saudi Arabia because of the segregation of genders in their own culture.

Unstructured questions were used during the focus group sessions with the aim of encouraging the participants to address their problems and obstacles in their

learning experience. The researcher, being a female, handled the female focus group for Saudi students. This was aimed at eliminating the sensitivity of dealing with the opposite gender; thus, the researcher conducted the female session while the male session was conducted by a male helper to insure and observe the privacy and the cultural issues. The male helper actually is the researcher's husband who is studying Masters in International Management at the University of Waikato and is familiar with the ethical considerations. The researcher was connected to the male helper by a microphone during the male interview process in order to monitor the discussions and the direction of the conversations. Both the focus group interviews were recorded on tape with regard to the participants' consents. The benefit of conducting focus group interviews is that it saves time for the researcher and this could encourage participants to talk about their experiences and feelings that others may experience in the same situations. A note book and pen was provided to the researcher to write the important points during the interview process. A thematic analysis was used to analyse the data in order to help the researcher in grouping the most important topics during the interview.

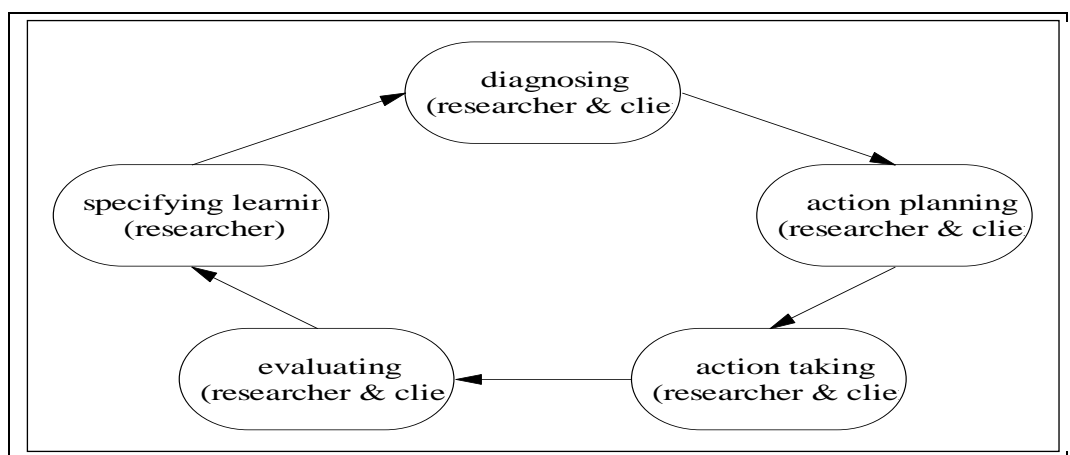
### **3.5.2 Stage two**

The second stage of this research took place in Saudi Arabia in three different universities in Riyadh, the capital city. Riyadh was chosen because it is the biggest city in Saudi Arabia and it has many universities. The universities under consideration included King Saud University, Imam Mohammad University and one of the private universities. In each university there are different colleges such as Management College, Education College and Science College. Each gender has its own building and its management. The population of this study was mostly female students and male lecturers. The participants were actually undergraduate students from different majors. Formal approval from universities was the first step for the research to be initialized. Consent forms were given for participants as proof of their approval in participating in this research. The approximate time for collecting the data in the second stage was three months.

### 3.6 Action research

Action research which is also known as participatory action research refers to the process of solving problems. The researcher works together with others with the aim of solving problems and addressing key issues that arise in the research process (Ferrance, 2000). Action research is the kind of research that is done by actions, thus, justifying the name. Action research, in some cases, can be carried out by bigger organizations with the help of qualified researchers. The bigger organizations engage in action research so as to develop their policies, performances and awareness of the business environment that surrounds them. Through action research, the researchers work in collaboration with others, with the main aim of innovating new ways of practice that are beneficial to the whole society in terms of work improvement (Ferrance, 2000). According to Professor Kurt Lewin, then of MIT, action research is a proportional research that analyzes the state and the outcomes of a variety of societal actions or research, thus, resulting to a shared action.

Action research is a process that involves various steps which are systematic in order to achieve the desired result (see figure 12).



**Figure 12. Steps for Each Action Cycle**

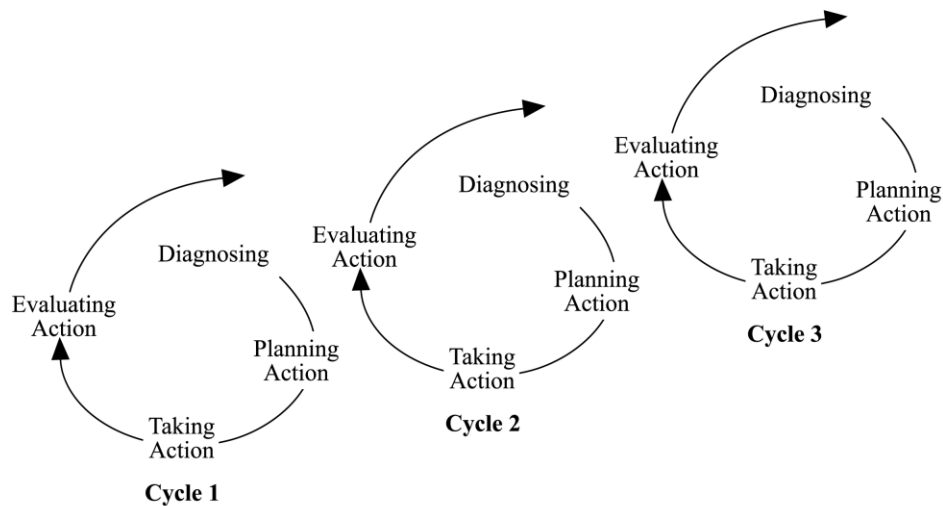
As seen in figure 12, the first step is to identify the problem area, also known as diagnosing. In research, the problem is: the difficulties that the Saudi female

students have when dealing with the male lecturers at the Saudi Universities. Once the problem area has been identified in action research, the next step is to gather or collect the relevant data, also known as action planning. In this step, the students were interviewed at different stages of the research. The questions in the interview mostly centered on: difficulties in dealing with the male lecturers; the idea of mixing the female students and the male students electronically; and the female students' experiences with the opposite gender on the social networks such as Facebook or Twitter. In addition, the lecturers were also interviewed and the interview questions centered on: the male lecturers who teach through TV screens; the male lecturers who teach online courses; and the obstacles and opportunities that the female lecturers in the Saudi universities have when teaching the online courses. Moreover, in this research, there was a telephone interview to one of the religious leaders about mixing both genders electronically in the education sector. Nonetheless, there was the observation of three different cycles in the learning process. The cycles included the traditional class where the lecturer is a male and the students are females; the lecturer here uses the live TV screen as media between him and his students. In addition, there is also the online class as another form of cycle, whereby, the lecturer is male and the students are female. The third cycle is also called the online class, whereby, the lecturer is male/female and the students are mixed male and female.

Action taken is the third step of action research. In this stage, the social networks are implemented in the traditional classes as well as online classes as way of communicating with lecturers. Moreover, the students in each cycle are closely observed. In addition, there are workshops about social networks such as Facebook and Twitter. The action taking stage gives way to the evaluation stage. In the evaluation stage, the data gathered from the interviews is analysed. In addition, the reaction of the students after the change happened in their classroom is also analysed. After the evaluation stage, the next stage involves the specification of the results, whereby, the learning outcomes are clearly produced.

### 3.6.1 The three different cycles of the action research

This research went through three different cycles, the research model can be seen in figure 13 (Coghlan & Brannick, 2001).



**Figure 13. Research Model for the Action Research**  
(Source: Coghlan and Brannick, 2001)

### 3.6.2 First Cycle

This cycle focused on traditional classes (male lecturer teaching female students). This class took place at King Saud University and it was a fixed time class. It is the first cycle where the researcher will observe, interview (students, lecturers and supervisors) and an intervention is applied in the class. The intervention is adding a Face book page for the subject for students and lecturer to interact.

This class was a religion subject (Islamic 103) for the first year students. It was a compulsory subject for all the majors at King Saud University. There were 17 female students attending the class once weekly. They attended the classes every Sunday from 12:30 pm to 2:00 pm. Both the lecturer and the students were required to be on the campus at the specified time to attend the lecture. The female students were mainly at the Saudi female campus which is located in Almalaz area at Riyadh, whereas, the male lecturers were in the Saudi male

campus in Aldereiah area at Riyadh. The approximate distance between the male and female campus is about 10 to 12 kilometres.

The female supervisor plays a significant role in the class as she monitors the class sessions, takes attendance and checks identities for the students to make sure that they are the right students enrolled in the paper. The male lecturer depends on the supervisor's observations because he cannot imagine the situation at the female campus.

### **3.6.2.1 Diagnosing the problem**

This way of learning is used when there is lack of female lecturers for the female students. The maximum time for the lectures is two hours. This is considered as a way of segregation between genders in Saudi Arabia. The lecturer has the list of all the students' names without their pictures. The control of this class is mainly from the supervisor's side rather than the lecturer's side. The lecturer's email is provided for the students but the students' emails are not known by the lecturer. Thus, the problem is that there is not much interaction between the male lecturer and the female students. For example if there is a delay for the test date students will not know unless they ask the supervisor which is a problem of lack of communication between the lecturer and his students.

### **3.6.2.2 Action planning**

Before collecting the data a formal approval is required from King Saud University. After getting the university's approval, the researcher will apply for the lecturer's permission to take an act in the learning process of his class, Islamic 103. The period of the action will last for four weeks in October, 2011. The researcher will observe the class sessions and write up notes about the way of learning in such classes. The lecturer will be informed about the research topic and the aim of observing his students by sending an email to him explaining the aim of this research. The researcher will ask the lecturer to inform the students about her in advance. The students who are not willing to participate are not

affected in any way. The researcher might ask for the students' university emails to enable her to send an information sheet about the research details. Everyone in the class is welcome to participate. Moreover, as the female supervisor plays a significant role in the class, the researcher decided upon interviewing three female supervisors for 30 minutes each to gather some data which could contribute to this study. The same paper could be taught by a female lecturer and this is a chance for the researcher to interview her and record her experience in teaching and what are the chances for Saudi female lecturers at universities.

In the first two days the researcher will observe the situations and record the normal situation for this class. The main focus is on the female students and how they received the class materials through TV screens. The interviews are divided into two: pre interview and post interview. The pre interview took place before the action while the post interview took place after the action had ended. This way of interviewing students helped in collecting the data about their real situation and the changes of the social network in their study. One of the advantages for pre and post interview is that the researcher is not sure if the same participants will be available for the post interview. Hence, this could be an issue the researcher will inform each participant about the pre/post interview and the aim of this kind of interviewing and keep them in touch the whole period of collecting data.

In the following two days, the researcher will conduct a pre interview for the male lecturer to address the real situation of this type of learning and to get the basic information about his experience in teaching the female students through the TV screens. As the researcher realised, the difficulties to conduct a face to face interview, a telephone interview is a suitable way for the researcher to interview a male lecturer within cultural restrictions. Unstructured questions will be asked to the lecturer about his experience in teaching the female students and his opinion of segregation between genders in the education system. Moreover, there will be a pre interview for 8 female students who had agreed to participate in this study. The interview will take about 45 minutes for each student. A consent form is given to the students to sign before starting the interview. The researcher gets their permission in order to tape record their interviews. The interview questions

were unstructured questions to encourage them to speak freely about their situations and some of their obstacles in the learning environment.

After all these interviews the researcher will address the capability of the social networks to be addressed in the education system. The researcher then will explain to the class and present the meaning of social networks such as Facebook and how they can be used to boost the communication between the female students and the lecturers. Moreover, the lecturer is informed about the importance of the social networks. After that, emails will be sent to all the participants and the lecturer on how to use Facebook in the learning process. The researcher will observe the intervention which is a Facebook page for the subject by monitoring the students and lecturer comments. All these procedures will help in drawing a real picture of the situation and work on the appropriate solutions to their problems through the social networks. A thematic analysis was used to analyse all the data gathered from interviews.

### **3.6.2.3 Action taking**

After sending emails and highlighting the importance of social networks that could help both the lecturer and the students to communicate easily and freely, the action stage took place after introducing the use of Facebook to the course. Brief descriptions about Facebook will be explained by the researcher to the students. The researcher will design a special page for the course and named it 'Islamic 103'. So, the name of the paper matched the name of the page to make it easier for the students to search for it on Facebook. The language was Arabic on the Facebook page see a screenshot of the page in appendix B. As the main language for students and the lecturer is Arabic, so the researcher will choose an Arabic page on Facebook to facilitate their contribution in this page.

The researcher writes all the basic information about the paper on the Facebook for easy access by the students. The basic information is the name of the paper, name of the university and the name of their lecturer. Both the lecturer and the students could interact through Facebook and learn how it could be used for

formal learning instead of using it for informal communication with friends. They have the choice of using their real names or not on the Facebook. After one week of preparation and collecting the important details about the current situation the process takes place and lasts for three weeks. The students are encouraged to post some comments on the Facebook wall about the feedback of each session. Each participant is asked to comment on others' posts and explain their point of view. The lecturer could post the previous exams' questions on the Facebook wall and open a discussion about it. The students are asked to post some videos or audio recorded topics about their class sessions. After the action taking stage, the researcher observes the Facebook to check on how the participants had commented on the page. A post interview is given to the lecturer and to the 8 students who previously contributed at the beginning of this cycle.

#### **3.6.2.4 Evaluating**

The evaluation process came after the four weeks of gathering the data and action taking. Another telephone interview with the same lecturer is performed to ask him about his experience out of his class. In addition, post interviews are carried out for the same female students to explain how the social networks influenced their learning. An observation of the real situation is important before adding the Facebook page for the paper. This is followed by an observation of the Facebook page and how students and lecturer interact.

This experience was new for both students and lecturer. They are shifted from the traditional learning to electronic learning through implementing Facebook in the education process. It is a new experience for both female students and the male lecturer as they used Facebook for formal interaction between them under the name of their subject.

#### **3.6.2.5 Specifying**

This section covered the results of this cycle and what the students gained from the online interaction. The male lecturer explained the differences between the

traditional learning and the interaction on Facebook in the education sector. The observation plays a significant role in this cycle because it helps to draw a real picture of the situation. See a summary in Table 1 for the first cycle such as the subject, number of participants, place, period and date for collecting the data.

**Table 1. Summary for the First Cycle**

Subject	Islamic 103
Number of participants for interviewing	1 male lecturer + 8 female students,+ 3 female supervisors+ 1 female lecturer
Place	King Saud University, KSA
Period for collecting data	4 weeks
Date of collecting data	October 2011

### **3.6.3 Second cycle**

This cycle focused on online courses (male lecturer teaching female students). This cycle took place at Imam University in Riyadh. The researcher got a formal approval from Mr. Yousef Al Qassim, the distance learning deanship to observe one of the online classes. Hadith 102 (Islamic subject) is the subject that was attended by the researcher. Imam University added the researcher to the system, ‘Tadarus’, as a student. This was for a short time, about one month, to enable the researcher to collect the data. This step helped in observing the online lessons and the systems as well.

#### **3.6.3.1 Diagnosing the problem**

In the past, the university did not admit students for some reasons such as, low grades in high school or a lack of space in the universities. At that time the students could complete their graduated degrees through home based education. In this situation, the students were enrolled at the beginning of the year and were given the subjects materials to study at home. Later, the students were required to attend the exams at the end of the year in the university campus which means there is no physical or electronic interaction between lecturers and students. The

education system realized the difficulties facing the students through that way of learning and they introduced distance learning to help the students to be more connected to the university. The university transformed the traditional way of home-based students to online learning. The new courses were online and linked to all students who could not find a place in the university. This improvement made a great difference in the students' life. The students are more likely to be involved in the subjects and could see the lectures online. The problem here is that there is not much interaction between the lecturer and the female students.

Moreover, all the online courses are carried out by male lecturers; the female lecturers are not engaged in this type of learning even if the students are females. The female lecturers' job is limited to teach female students in traditional classes.

### **3.6.3.2 Action planning**

The lecturer needs formal permission from Imam University to take action in the learning process. This process lasts four weeks in Nov 2011. The researcher requires getting the consent of the female students before undertaking the research as she needs to contact the participants through their personal mobiles. The female section at Imam University could help in solving this issue by calling the female participants and taking their permission to be part of this study. It is an unethical issue in Saudi Arabia for the females to give their mobile phone numbers to strangers, that's why their consent is required. Later, when the researcher received the participants' numbers and names and their nick names are used in the system "Tadarus" will start collecting the data.

In addition, the researcher asks for the lecturer's permission to be part of the learning process. Pre and post interviews are carried out for the female students and the male lecturer. An observation of the real situation is needed before the intervention which is adding a Facebook page for the subject and observing the participants behaviour. An interview to the female lecturer was conducted to address females' opportunities in teaching online courses.

### **3.6.3.3 Action taking**

After being part of the system, the researcher will contact the female students through their mobile phone numbers that the University had provided. A pre and post telephone interview is held for the 8 female students from different parts in Saudi Arabia. The pre interview is at the beginning of the cycle and the post interview is after the action taking. Telephone interview was chosen because it was hard to have face to face interviews as each student lives in different cities in Saudi Arabia.

The researcher arranges for a pre and post telephone interview with the male lecturer because it is hard to have a face to face interview with him due to cultural restrictions. Unstructured questions are used to ask participants. Moreover, an audio recorder will be used to record their answers after their approval.

Moreover, a face to face interview was conducted for the female lecturer to address the opportunities for the females to teach through online media. This interview highlighted the opportunity for the female lecturer to participate in the online courses and to discuss the main obstacles that hindered her. The pre interview for the male lecturer and the female students is the first step in understanding their real situations. This addresses the main obstacles about their online courses. The post interview will be carried out to all the participants after the introduction of Facebook to the paper. After the pre and post interview for all the participants, the researcher will be sent out by emails to them about the social networks and how they could assist in the learning process. The participants are also informed about adding a Facebook page for the subject, Hadith 102 and they could easily interact with their lecturer and share videos and information about the topics discussed in the class see appendix C. After 4 weeks of interacting on the Facebook page post interviews are carried out with 8 female students and separately with the male lecturer to evaluate their views on using Facebook in their learning process.

### 3.6.3.4 Evaluating

The result of the interviews displayed the real situation and how the online courses were running in the Saudi Arabia Universities. In addition, another group interview was carried out for the same female students to explain how the social networks could influence their learning. Observation was an important step in this process because it revealed a clear picture of the situation.

### 3.6.3.5 Specifying

Introducing the online courses in Saudi Arabian Universities is a good step, but it needs more implementation of online applications. Online learning is of similar benefit to the traditional classes as the students need to attend the tests physically. Some changes in the online classes will help both the female students and the male lecturer. Female lecturers could find opportunities to teach online courses with regard to the cultural considerations. Female lecturers could also teach male students electronically without displaying their real pictures. See a summary in table 2 for the first cycle such as the subject, number of participants, place, period and date for collecting the data.

**Table 2. Summary for the Second Cycle**

Subject	Hadith 102
Number of participants for interviewing	1 male lecturer + 8 female students+ 1 female lecturer
Place	Imam university, KSA
Period for collecting data	4 weeks
Date of collecting data	November 2011

### **3.6.4 Third cycle**

This cycle focused on online courses (male lecturer teaching both female and male students). This type of learning is new in Saudi Arabia and it is limited to private universities. So, this process took place at one of the private universities (anonymous participant) in Riyadh. It lasted about four weeks in Dec 2011. This kind of learning is hard to find at public universities in Saudi Arabia. Those private universities started to teach post graduate students online and the under graduate students physically. The researcher will get the formal approval from the university to observe one of the online classes. The process of collecting the data starts from observing the classes online, pre interviews for 8 students and lecturers before adding the Facebook page for their subject. After the intervention, post interviews are followed up. An interview for a religious person is needed to explain the religious point of view about mixing genders electronically.

#### **3.6.4.1 Diagnosing the problem**

This type of learning is mainly common at private universities in Saudi Arabia. Usually the lecturers are from the US or England and they are linked electronically with the students in Saudi Arabia. The online classes consist of both male and female Saudi students who interact with each other electronically. The problem here is that the undergraduate students do not have this kind of learning. The undergraduate students mostly study with the same gender traditionally or electronically. It is limited to post graduate students as they are more mature than under graduate students. The problem here is that what are the reasons beyond teaching post graduate students online courses and not teaching under graduate students online? They should have the chance to study in a mixed environment electronically, the same as the graduated students.

#### **3.6.4.2 Action planning**

The researcher decided to run the same system for the graduate students as for the under graduate students. The lecturer was also encouraged to run an online class

with mixed genders for a short time period about 4 weeks for the first year students and the subject is management overview. An observation of the real situation will take place at the beginning of this invented class. Then the researcher will carry out pre interviews for participants, 8 students 4 males and 4 females as well as the lecturer. After that, intervention is applied and a Facebook page is built for this class for interaction between males and females and the researcher will observe the situation. Post interviews will take place after the intervention for all participants.

The researcher prepared an interview for a religious person by searching in the Facebook for someone who could give out his opinion about the mixed environment for both genders electronically. The telephone interview would last for 45 minutes and it is the best choice, as the researcher is female and meeting physically is hard. The researcher sends consent forms to all participants and arranges the meetings. The university adds the researcher to the system to observe the situation and draw a clear picture of online courses where the students are males and females. This cycle is different from the previous two cycles as the students are mixed in online classes.

#### **3.6.4.3 Action taking**

As the online classes started the researcher observed the reaction of the students on discussing some of the topics online. An interview was done for the lecturer and the students to explain their feelings about the idea and how they predicted the results. Pre and post interviews are carried out for four male students and four female students. A telephone interview is carried out for a foreign male lecturer. Usually private universities have contracts with lecturers around the world to teach online and benefit from their experience. A Facebook page is created by the researcher and introduced to participants. The lecturer would ask the students, both the males and the females to post their ideas on the Facebook page and encourages them to respond on others posts. The lecturer also asks the students to form a group of two (male and female) to research one topic and submit it as one assignment. This assignment could encourage them to work together and express

the real situation of mixing genders electronically. A post interview is done for the lecturer and the students after this experience. Participants have the freedom to choose their real names or nick names in the Facebook page.

#### **3.6.4.4 Evaluating**

These practices encouraged the students to share their knowledge with the opposite gender under the umbrella of education learning. The students explained their feelings after the experience and suggested some regulations for such courses. The females were more open and confident to discuss the course material with the male friends electronically.

#### **3.6.4.5 Specifying**

Online courses with mixed genders were an issue for the Saudi culture. Designing some rules and regulations could help the students to be mixed with respect to their culture and religion. See a summary in table 3 for the first cycle such as the subject, number of participants, place, period and date for collecting the data.

**Table 3. Summary for the Third Cycle**

Subject	Management overview
Number of participants for interviewing	1 male lecturer + 4 female students, 4 male students + 1 religious person
Place	Private university, KSA
Period for collecting data	4 weeks
Date of collecting data	December 2011

### **3.7 Data reliability and validity**

Triangulation method has desirable impact because the three research approaches, namely example, literature review and questionnaire/ interviews; on their own have weaknesses in reliability and validity. This justifies the triangulation method approach in this study, to reduce the error posed by lack of validity and reliability. The example method has weaknesses in study reliability, internal validity, and

external validity and constructs validity. This poses a research dilemma on the best method to approve the outcome of the case study.

## 4. Findings

### 4.1 Introduction

This section covers the analysis of the data, presentation and interpretation. This research showed that segregation between the males and the females in Saudi universities was not a concern in the Electronic media. This gave the opportunity for both genders to share their experience and train them for their future professions in the corporate world. Moreover, online courses would increase the opportunity for the Saudi females to study in the universities overseas within the distance learning range. The electronic socialization in Saudi Arabia suits the Saudi's culture and increases the opportunities for female students.

### 4.2 Findings from the exploratory study for Saudi students in New Zealand

After the exploratory study was done with the Saudi students, both males and females at The University of Waikato in New Zealand, great findings were released for the first time about the experience of studying in two different cultures. A thematic analysis was used for the data that was collected with the aim of helping the researcher in grouping the most important issues during the interview process. Important issues in the interview process are described below.

#### 4.2.1 Differences in learning experience

From the study, it was evident that there were three key differences perceived in the learning experience for Saudi students between the Saudi systems of learning and the New Zealand systems of learning. After analyzing the data for the Saudi male and female students and their learning experiences in Saudi Arabia and New Zealand, it was clearly revealed that there were differences in the learning experiences between the two set ups. Three differences that were pointed out included: the way of mixing both genders at the universities in New Zealand is different from the Saudi universities; the way of teaching the subjects are totally

different in the two countries; and the way of communicating between the students and lecturers is also totally different between the two countries. The Saudi students got shocked about how the male students and the female students were mixed in the New Zealand universities. This was totally different from what they were used to in the Saudi Arabian universities, where segregation between genders is regarded to be an important element. In Saudi Arabia, students mainly depend on the lecturers and textbook whereas in New Zealand they depend on themselves in the pursuit of knowledge with little direction from the lecturers. The Saudi Arabian universities depended on tests rather than assignments, while in the New Zealand universities, the opposite is true. Moreover, class attendance is very important in order to pass the examination in the Saudi Arabian universities whereas in the New Zealand universities, the attendance level is not given much consideration. Nevertheless, the way of communication between the students and the lecturers are different as well. It is very hard to meet with the lecturers in the Saudi universities and at the same time, the students do not find it easy to critique each other's work. One of the female participants said, *"It was one of my hardest times when the lecturer asked me to critique other student's work. I felt it was disrespectful but after a long time of training I liked it and found it as a good way of learning."* Another participant added, *"Being unable to critique does not mean that we do not understand, it means we are not used to this way of learning in Saudi Arabia."*

#### **4.2.2 Gender preference among the Saudi students in New Zealand**

Both the male and the female students found it very hard at the beginning of this study because of the mixed environment at The University of Waikato. They adapted to the situation after some period of time, but they still preferred to work with the same gender in the course of this study. The male students were more open to work with the female students, unless they were not Saudi girls. The same idea was evident from the female students' perspective. A female participant said, *"Talking to a Saudi guy embarrasses me a lot, but I do trust them even though we are not used to this situation. If I have a Saudi boy at my class I prefer to keep silent."* In addition, a male participant said, *"I would love to help a Saudi girl*

*whenever she needs help but I am worried about the other Saudis and how they would interpret this”.*

Working with the female students in general is a concern for the Saudi males because they think that women like to control the situation when they work in a group. They said that women sometimes use their tears as a weapon and that is why they prefer working with the males because it is more flexible for them. On the other hand, the Saudi female students found it more flexible to work with their female counterparts due to the fact that they can meet at home and they are more understanding and aware of the women situation. A female participant said, *“I worked once with a group that had boys and they asked to meet late night but I could not, I tried to explain to them about my religion and my situation but they could not get the idea.”* Another female participant said, *“I prefer the online communication between the group members because it grants us more freedom as Muslim women without embarrassing others. At one time I was in a mixed group and I was worried all the time about getting closer to the male student or shaking their hands.”* Therefore, it is true to say that both genders are of the same mind that they have no experience in dealing with the opposite gender outside their family members. This limited experience is a problem, especially for the female students who were taught by male lecturers as they found it hard to express themselves or raise their voices. After their experience studying at The University of Waikato, each gender preferred the lecturer to be from the opposite gender. A female participant said, *“We feel that the male lecturers here at Waikato University are more respectful than their female counterparts. We do have limited experience with the male lecturers in Saudi Arabia, who we rarely communicate to through TV screens.”* On the other hand the Saudi male students preferred a female lecturer as it was a new experience for them in New Zealand that had never happened to them in Saudi Arabia.

#### **4.2.3 Success of the social networks**

There were difficulties facing the Saudi students in dealing with online applications at The University of Waikato; on the other hand, the use of social

networks such as Facebook in the learning process proved to be very successful. Both the male and female students agreed that The University of Waikato had online applications for the students, but they said it was hard to navigate and they thought that they needed a lot of tutorials before starting at the university. The male students were more involved in the online learning process than the female students. This was due to the fact that they had the courage to learn new ways than the females. The online experience for the female students was limited, as it was technical for them to use and navigate into the social networks, add papers and submit assignments. Both the male and female students who participated in the online learning process said that there were pros and cons for using the online process.

According to them, they considered the online papers to provide an easy way of transferring knowledge. The online paper also suited the female students more than their male counterparts because they were more involved with the family at home. In addition, the online paper suited the New Zealand education system more than the Saudi system because students in New Zealand depend on themselves. It is also true to say that the online papers suited the female students to solve the problem of mixing with the opposite gender. It also suited the graduated students, who were more responsible than the undergraduate students. Moreover, the online papers suited the Saudi culture especially if the lecturer is male and students are females.

In contrast, the online papers presented some challenges to the students. The students had the idea that a person might lose his/her speaking skills by using the online paper. Moreover, online papers prevented the students from enjoying the experience of learning at the same class with their classmates. Also, some of the online papers are outdated since they were recorded a long time ago and have not yet been updated. Online papers do not provide an opportunity for the students to make presentations in the class, hence, not boosting their presentation skills and personal confidence. Nonetheless, online papers do not pay much attention to attendance of the students which is one of the main aspects for the education system in Saudi Arabia and they found it hard to adjust to an online paper.

Both the genders liked to use the social networks especially after their experience overseas. They appreciated the technologies that linked them with their families and friends back at home. There are some applications such as Skype and Oovoo that helped them to connect with their families and friends in other parts of the world 24 hours a day. They added that Facebook and Twitter were the most common and important social networks which were available on I-phone and this made it easy to access them anytime and anywhere. A male participant said, *“I feel that I am carrying my friends with me all the time as I have the Facebook application on my I-phone”*. A female participant also added, *“I attend most of the events in my Family house electronically which is great, I saw my sister in her wedding electronically!”* Both genders used their real names in the social network but there were some restrictions in adding their real pictures especially for the female students. Actually, the female students were stricter than the male students in adding the opposite gender to their friends or contact list. For more details about the findings of this focus group see appendix D for men’s interview and appendix E for women’s interview.

### **4.3 Findings of the action research**

Action research refers to the process of solving problems whereby the researcher works together with others, with the aim of solving problems and addressing key issues that arise in the research process. Through action research, the researchers work in collaboration with others with the main aim of innovating new ways of practice that are beneficial to the whole society in terms of work improvement. The researcher conducted the action research in three different cycles. The first cycle focused on traditional classes (remote male lecturer teaching female students). In other words it was a fixed class time. The second cycle focused on online courses (male lecturer teaching female students) and the third cycle focused on online courses (male lecturer teaching both female and male students).

### **4.3.1 Findings of the first cycle**

During the first cycle of action research, the researcher interviewed 8 out of 17 female students who attended their classes at King Saud University. This cycle depends on physical observation to the class before the intervention, pre interview for the students and the male lecturer before the intervention, adding a Facebook page of the same classroom subject and observation of that page, a post interview for participants to register their impression after the intervention. The researcher found interviewing a female lecturer could help in gathering more data as well as interviewing 3 female supervisors who played a significant role in such classes. The results for all these procedures in collecting the data are:

#### **4.3.1.1 The real situation of the class as a result of observation**

In this class there is one video connection and two audio connections between lecturer and students. The students can communicate with their lecturer using microphones. There are 4 TV screens around the class and microphones are hung on the walls of the class. The timing of the class session is displayed on the screen in front of the students, a real picture of the class shown in figure 14. The control of the microphones is from the lecturer's side and he can switch it on or off but the students cannot. The male lecturer is shown live through the TV screens from the students' side but the lecturer cannot see them. A female supervisor always attends the classes to monitor the attendance of the students and also the proceedings in the class. Mobile phones are not allowed during the class time and chatting is prohibited unless a student needs to ask or answer a question.

The attendance is necessary in this class and there is special consideration for the number of absences in each semester. After three absences the student is given a warning and with the fourth absence, the university does not allow the student to continue attending the subject, hence, the student fails the paper, unless there is a medical report explaining the reason of her absence. The female supervisor plays a significant role in the class as she monitors the class sessions, takes attendance and checks identities for the students to make sure that they are the right students

enrolled in the paper. The male lecturer depends on the supervisor's observations because he cannot imagine the situation at the female campus. The lecturer mainly calls the names through the microphones and asks each student to read a chapter of a book while he interprets. Moreover, the supervisor will be responsible for spreading the test sheets for the students and observing them during exam time. In the figure below (14), reflects a real picture of traditional classes at King Saud University. It clearly shows four televisions hung on the corners in order to assist all female students to monitor the lecturer's speech and observe his body language as well.



**Figure 14. The traditional Class at King Saud University**

#### **4.3.1.2 Perceptions prior to intervention from pre-interviews**

The researcher pre interviews both 8 female students and 1 male lecturer prior to the intervention to draw a real picture about their situation. Unstructured questions gave them the freedom to express their feelings and explained the obstacles facing them in such a class. The results for this pre interviews were:

##### **4.3.1.2.1 Female students preferred remote male lecturer to co present female lecturer**

The female students showed that the female students preferred male lecturers to female lecturers because they all thought that the males were more flexible than the females. They believe that female lecturers were stricter and they asked for a lot of work. If the female students had the choice of choosing between a male lecturer and a female lecturer, they would choose the male lecturer over the female lecturer. One students was sad, she said “ *I knew that the university sent you to our class to change the lecturer, please tell them we are happy about our situation*”. Another student added “ *I got good marks if the lecturer is a male compared with my results if the lecturer is female*”.

##### **4.3.1.2.2 Email contact between female students and male lecturer rarely happened**

The students contacted the male lecturer through emails if there was a need but it rarely happened. If they had any question or matters arising, usually they contacted their supervisor; for instance, if there was a change in the lecture time or the exam schedule. Thus, they contacted the female supervisor more than the lecturer. The female students pointed out that the subject was not so demanding, thus, class attendance was not an important element. Instead, they wished to have an online paper that did not require their physical presence in the class. A student said “ *no need to contact the lecturer the subject is just Islamic and we can understand it, I agree with you that we might need to contact the lecturer if the subject is science for example*”. When the lecturer was asked about the reason he

said “*actually there are university emails for the students but it is not activated from the department, so I cannot send any emails unless they gave it to me manually. My email is provided for them if they need it but contacting the supervisor is much better as she can organise all the issues*”.

#### **4.3.1.2.3 Most student contact was with the female supervisor, not the lecturer**

Students preferred to ask the supervisor if they needed any help such as attendance or missing the exam. They felt that the supervisor was more involved with them in the class because she attend with them until the end of the class. For example a student said” *I find it easy to speak to a female and explain my problem to her, some of our problems related to maternity leave or appointments and it is good that we can talk to her better than embarassing ourselves in front of the male lecturer*”. Another student said” *I have no problem contacting my lecturer, but he asked us to contact the supervisor and she plays the role of mediator between us*”

#### **4.3.1.2.4 Male lecturer didn’t enjoy these classes because of lack of interaction**

Surprisingly, the interview for the lecturer was held after the class session in the same class according to the lecturer, he said that the researcher could use a microphone in the class to speak to the lecturer for one hour. The TV screens were turned on, thus, giving the researcher a chance to see the lecturer’s face and record his body movements and expressions. An audio recorder was used to record the lecturer’s interview. The audio recorder was used with the consent of the lecturer.

The results revealed that the lecturer did not like the way of teaching because it was so hard to communicate with the female students. In addition, it was very hard to pinpoint the excellent or the good students from the poor ones. The lecturer confirmed that he would have preferred to teach male students so that he could negotiate and discuss with them easily and freely. In his response to the

question on whether he was comfortable with teaching the female students, the lecturer said, *“I feel that I am speaking to myself when I teach the female students, because I am isolated in a room and cannot imagine the situation in the class.”* He continued *“Thus, the remedy to this problem is providing a female lecturer who is equally qualified. The online classes have the same problem of being isolated, especially if the lectures are recorded”*. Moreover, the male lecturer suffered from another problem of being the supervisor for the female students who were doing their masters degrees. It was so hard to communicate and discuss with them, as there was nothing like face to face interaction. He said, *“When I supervise a male student he can visit me during my office hours and we can chat, negotiate and discuss the topic more.”* The lecturer was concerned that teaching four compulsory Islamic subjects was too much for the students. He suggested that they should be minimized to two subjects and that only the most important topics in Islam should be chosen to teach the students. Moreover, the lecturer did not support the idea of giving the students research assignment because they might assign it to someone to do it for them. Instead, the lecturer liked to ask the students to read a chapter of a book and summarize the main points. The lecturer was aware of the relevance of using social networks in the study process even though he did not support the use of Facebook in the education system.

#### **4.3.1.3 Female supervisors are happy with their job and resist any change**

The researcher discovered that the supervisors' qualifications were different as some had secondary certificates while others had bachelor degrees from different majors. The supervisors attended different courses such as English language, Computer and management courses after hours. From the beginning of the semester, a timetable was provided for the supervisors for them to know which papers they should attend and monitor during the semester. The research revealed that the supervisors were responsible for: calling out the students' names and writing the attendance; monitoring the class activities and ensuring that the students do not use their mobile phones during the class time; ensuring that chatting is not allowed in classes; the supervisors are the link between the lecturer and the students all the time; they received the medical reports for the absent

students and discussed it with the lecturer; they are responsible for spreading out the exam tests and supervising the students during the exam time; they have to submit the exam papers manually to the lecturer through the university's mail, but this way might take long time, thus, some supervisors sent their male relatives to hand in the exam papers to the lecturer after a telephone arrangement. The supervisors were generally happy about their work and they said that the university provided a good salary package. In addition, there is childcare for their children within the institution. Generally they do not wish for the system to change because their jobs are based entirely on these classes that have male lecturers teaching female students through TV screens. One supervisor commented " *If your study is about changing a system that we are used to it for many years, this means you are affecting our jobs! Who knows the university might say we are sorry but there is no more spaces for you anymore*".

#### **4.3.1.4 A female lecturer is happy about her role and surprised that male lecturers still teach female students**

The researcher conducted an interview with a female lecturer who had 44 female students in her class. She was teaching the same paper as the male lecturer to another group of students. The female lecturer was so happy about her job and she actually enjoyed it. She said that there were other qualified female lecturers who could handle the students. She did not see any reason for replacing the female lecturers with the male lecturer. She felt that most students attended the class just because of the attendance marks but not to benefit from the paper. After asking her about which students prefer male or female lecturers she replied " *I am not sure but attending a class with real interactions is better than having boundaries between the students and the lecturer, in the end it's their choice*". She continued talking about qualified female lecturers " *there are heaps of female lecturers who are qualified in our universities but I'm not sure what the problem is, but I am sure this matter will not take a long time*". The researcher asked the lecturer if there is an opportunity for a female lecturer to teach online. And she replied " *if the online classes need either the voice or the picture of a female lecturer it is difficult according to our religion and culture, even though the audience are*

*females but we do not trust electronic applications. So I think for our culture it suits us to teach physically, better than online classes”*

#### **4.3.1.5 Observation during the intervention**

After adding the Face book page to the subject the participants are not active. Some of the students seemed unfamiliar with Facebook. The lecturer seemed disinterested in the idea of adding a Facebook page because he was not active on the page. The researcher started a discussion to encourage the students to participate. Few of them responded, others used the “like” sign. All of the students used nick names instead of their real names, except the lecturer who presented himself with his real name and real picture. The pictures used on the students wall were not real pictures, they used simple pictures such as flowers, water and cartoon characters.

The lecturer mentioned once that he was going to read the exam questions for previous years to the students so they can benefit from them, the researcher asked him to put them on the Face book page instead of reading them. The lecturer finally agrees to post the questions on the page and students started to ask about some of the questions they did not understand. One of the students posted a video about their topic discussed in class and others interacted with her.

#### **4.3.1.6 Perceptions after intervention from post interviews**

After the intervention took place, post interviews were carried out with the lecturer and the students in order to address their opinions and how this experience changed their impressions. These interviews resulted in:

#### **4.3.1.6.1 Male lecturer felt that Facebook was not suitable for the learning system**

The results revealed that the male lecturer was not as active on the Facebook page as he thought he could have been and that Facebook was not suitable for their learning system. In addition, he held the view that social networks were more suitable to spread news or share knowledge with millions of people; thus, the social networks would not help in the segregation between the two genders. He recommended that the male lecturers should teach the male students and the female lecturers should teach the female students. The lecturer did not trust the use of Facebook, as people tend to use fake identities. The Facebook page could be a distraction from the main topics and the students could be more confused and find it more difficult to focus on the main goal of the paper. He said “ *I could put a page on the Facebook for any famous person and speak on behalf of him! Who would know! How could people recognise the true identity from the false one!*”

#### **4.3.1.6.2 Students liked the idea of Facebook but it is difficult to use**

The results revealed that they liked the idea of using Facebook, but they found it difficult to open an account in Facebook. One student said “*Even though we received the instructions about how to open an account in Facebook, it is still difficult and also difficult to navigate*”. Another student added “ *I feel it is not difficult, but as we are not used to the electronic application, that’s what make it difficult. I am sure if we train ourselves on using the social network, this will be helpful*”

#### **4.3.1.6.3 Students felt social networks suits free time but not as a part of curriculum**

They felt that social networks could be useful during their free time but it is difficult for the social networks to be part of the curriculum. The students appreciated their lecturer’s comments on the Facebook page and understood his vision more. Facebook was seen as an informal way of learning rather than the

main media of learning. The students were not very active commenting on the Facebook wall; instead, they just liked the posts rather than commented on them. The students still found it hard to embrace the electronic media in the learning process, thus, they rarely communicated to the lecturers or the supervisors through emails; instead, they attended the classes physically.

### **4.3.2 Findings of the second cycle**

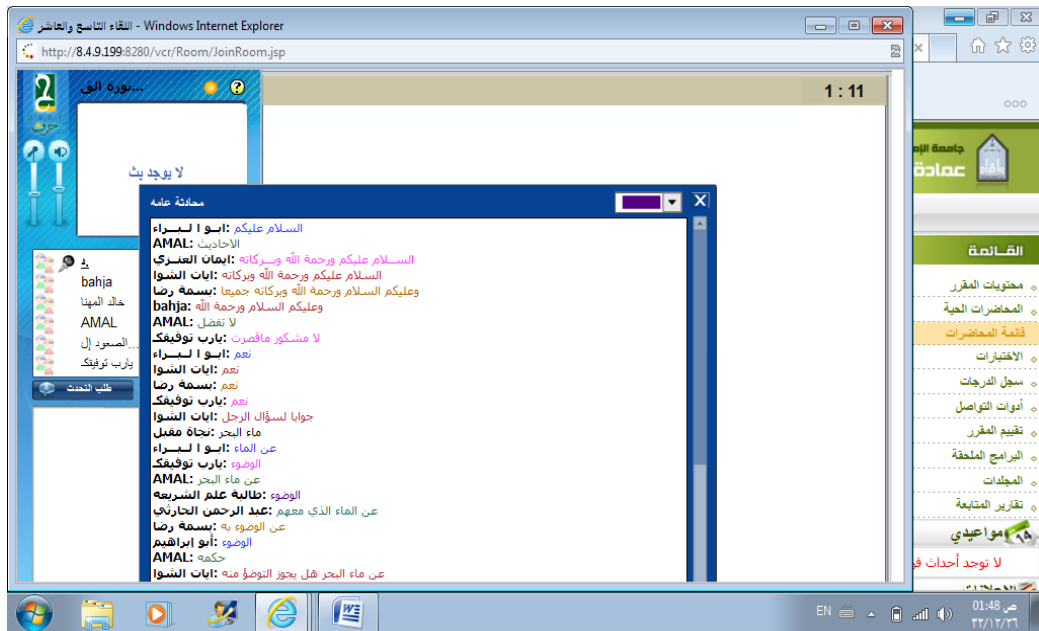
During the second cycle of action research, the researcher conducted a pre/post interview for 8 female students who were studying at the Imam University. This cycle depended on observation of an online class before the intervention, pre interview for the students and the male lecturer before the intervention , adding a Facebook page to the subject and observe it and post interview for participants to register their impression after the intervention. A face to face interview was conducted with a female lecturer to search their opportunities teaching online. The results for all these procedures collecting the data are:

#### **4.3.2.1 The real situation of the online course as a result of observation**

The distance learning deanship adds the researcher in the system “Tadarus” as a student to facilitate her navigation. In the researcher’s page, the paper was added as Hadith 102, an Islamic paper for the first year students who studied Sharriyah at the Imam University.

Tadarus is the system used for the distance learning at Imam University. Imam University’s students can log on to Tadarus to see their enrolled subjects with their times, dates and lecturer names. Each student can attend the classes online or they can see the recorded videos. The display of the chosen topic, Hadith 102, is shown on a smart board online. The picture of the male lecturer is not displayed online, only his voice is heard by the female students. Students are enrolled from different parts in Saudi Arabia and all are linked to the university electronically. During exam time, the students are required to attend physically at places chosen by the university around the Saudi Arabian cities.

When the online class started, chatting is available online. Students can posts their questions and the lecturer answered them with a screen shot of the situation seen in figure 15. On the corner of the page there is a button that the student can press and talk with the lecturer. The strange aspect is that only the lecturer can hear the student's voice but no other students.



**Figure 15. Online Chatting during the Online Classes at Imam University**

Figure 15 reflected the real situation of the online classes at Imam University; this page reveals online chatting between students and their lecturer. Students were using nicknames and no pictures. The only voice heard is the lecturer's voice during this class. In addition, the female students cannot hear their peers' voices during the participation.

#### **4.3.2.2 Perceptions prior to intervention from pre interviews**

As this study conducted a pre interview for 8 students and a male lecturer to gather some data about their situation and how online classes affected their learning process.

#### **4.3.2.2.1 Female students liked the idea of online classes**

The results revealed that the female students liked the idea of having courses online. In addition, they felt isolated a little bit but they found online learning as a solution for being far away from the universities. One of the students said “ *I think online classes came to me as a gift from God, because I am living in an isolated area and my parents find it difficult to move to a big city*”. Another one added “ *I got low grades from my secondary year and it was impossible for any university to accept me, until Imam university opened the online classes and it opened a new window to a future life*”.

#### **4.3.2.2.2 Female students communicate with their lecturer through emails**

The students communicated with their male lecturer through his email or through the online discussion provided in the “Tadarus” system. The online discussions provided the platform for the students to post their questions for the lecturer to answer. The university set up an informal website for the students. This website was created by a student at Imam University and it was more helpful to them than using “Tadarus”. The website helped the students a lot as the students from previous years, wrote about their experience in studying some subjects and provided guidelines to follow in studying for the exams. In this website, the students formed groups, such as the “Hadith group”, to help them communicate with each other. The website also necessitated the free download of educational materials.

#### **4.3.2.2.3 Female students are happy not to have any assessments during the year**

There were no assignments or research during the semester. There was one big exam at the end of the semester and the students had to appear physically in order to do the exams. The exams questions are multiple choice questions and the computer will mark it automatically. One participants said “ *this way of learning suits me, I do not want to do a lot of assignments because I am working , so exams*”.

*at the end of the semester is enough*". The mark is out of 100, completely based on the exam at the end of semester and there is no mark for their attendance online.

#### **4.3.2.2.4 Female students are using nicknames in the "Tadarus" system**

The students preferred to use false names in "Tadarus" chatting during the class session because they felt more comfortable, it was part of their culture to stay hidden from the males; thus, assuming false names suited them all. One participant said " *those nick names are known by the system, so if my name is flower for example, on the lecturers side he recognises my name*". When the lecturer asked about his point of view, he said " *at the beginning of the course the real names appeared on the chatting screen, later on the students asked me if it is OK to use nicknames instead of real names. I spoke to the IT department and later on it was OK for them to use nicknames. It does not matter for me, as there is no marks for participation so they can choose what makes them more comfortable*"

#### **4.3.2.2.5 Male lecturer points out the advantages of online courses**

A pre interview for the male lecturer was also conducted and the results revealed that the lecturer had four years of experience in teaching the online courses. Online learning presented various advantages to the students. It gave opportunities to a lot of students to complete their studies, especially those who did not get good enough grades to be accepted in the major universities. Online learning presents some advantages. It is a chance for old people to complete their education. In addition, it makes it possible for the working class to still carry on with their education. Also, online learning offers a platform that boosts communication between the lecturer and the students at all times. Through online learning, the students were required to submit their email addresses to the lecturer to ease communication between the lecturer and the students.

#### **4.3.2.3 Female lecturer agrees that there is an opportunity for Saudi female lecturer to teach online courses**

A Saudi female lecturer revealed that the education in Saudi Arabia is rapidly increasing. More opportunities for women in universities will be opened. This lecturer studied in the U.S.A and she studied some papers online during her study. She said “ *online courses do not necessarily mean that the lecturer should show his picture or his voice, I took some papers where the lecturer downloaded the course material and an online discussion is opened for the students. This is what suits us as Saudi females and this could help in teaching male students online as well. As there is no disruption to the religion or the culture, why not?*”

#### **4.3.2.4 Observation during the intervention**

After the intervention of adding a Facebook page for the subject under the name of the same paper “Hadith 102” an observation took place. The students are active on the page as they found it a suitable place to post some questions and others respond. It seems that they are capable with online applications. The students used the same nicknames they used in the online classes. The lecturer used his real name and real picture. The lecturer started the discussion many times and students were active in responding to his discussions. The lecturer encouraged students to search for YouTube videos and post them on the Face book wall and open a discussion about them.

#### **4.3.2.5 Perceptions after intervention from post interviews**

##### **4.3.2.5.1 Students would like the social network to be part of the curriculum**

The students agreed that they did not trust people in the social networks; hence, they had to find the group for the students who studied the same paper. They formed virtual groups, as they did not have the chance to meet physically. Facebook helped the students a lot in sharing the materials, better than the

websites they used previously. The students uploaded some videos on YouTube that explained a lot about their topics in class, thus, they still knew what the classes were about even without attending them physically. The students could see the lecturer's comments and freely respond to them. Facebook gave the students the chance to locate themselves and see how they were physically located away from each other. The female students liked the idea of having a Facebook page and they wished that they could have it for a longer time period. They said online interaction is a good way for communicating for the isolated student. One participant said "*it is good to interact through Facebook, but we have the Tadarus system and another informal website to interact, so it is too many places for us, I suggest if the lecturer agrees on one place it will all be good!*".

#### **4.3.2.5.2 Lecturer liked the idea of Facebook in formal learning**

Generally the social networks were good but there was lack of honesty, someone could write under a famous person's name, who knows? It is so hard to trust them. The lecturer agreed to have a Facebook page for this paper. The results revealed that the lecturer really liked the idea of using Facebook. He confessed that initially, he did not trust peoples' identities on Facebook but after the research, he realized that a group of people could have their privacy and they could trust each other. The lecturer enjoyed being part of a group on Facebook and they shared a lot of videos and information. The lecturer said, "I think Facebook is a great tool to use in the education process especially for the mixed classes online." Facebook gave both genders the opportunity to share knowledge without compromising their culture or their religion.

#### **4.3.3 Findings of the third cycle**

During the third cycle of action research, the researcher conducted a pre/post interview for 8 students who were studying online classes at one of the private

Universities. This cycle depended on observation of the online class before the intervention, pre interview for the students and the male lecturer before the intervention , adding a Facebook page to the subject and observing it and finally post interview for participants to register their impression after the intervention. A telephone interview was conducted to a religious person who could elaborate on the religious point of view about mixing both genders electronically. The results for all these procedures in collecting the data are:

#### **4.3.3.1 The real situation of the online course as a result of observation**

After being part of the system, the researcher had the chance to observe the students behaviours. Even though the class is mixed gender, all the students used their real names. The lecturer opened online discussions and the students responded. It seems to be a normal class and the students from both genders are behaving well. The way for contacting the lecturer is through the email or the online discussion. The lecturer responded quickly to any question.

#### **4.3.3.2 Religious person encourages both genders to interact electronically without harm to their religious values**

The religious person was met through the use of Facebook. The research revealed that the religious person supported the use of Facebook as a great media to spread a lot of Islamic rules to many people at the same time. He admitted that he could not reach out to all these people physically. He mentioned that any invention in this world has advantages and disadvantages, and that there was a need to take opportunities to employ the advantages of Facebook to share the truth of Islam. Sharing knowledge is not related to one gender, both genders have the right to speak and share their opinions unless there is physical interaction between both genders. The religious person also admitted that there were many great female writers in Saudi Arabia who could publish their work for the publically. He also encouraged both genders to write and share important knowledge together electronically as it is a better way of exchanging knowledge without compromising the Islamic rules or the cultural restrictions. He never seemed to

care so much about the use of fake names on Facebook; what was more important to him was the content of what people wrote on Facebook. He said, *“In my page I have many females who always write nice topics and I am interested in reading all of them, even if they do not use their real names, it does not matter.”*

#### **4.3.3.3 Perceptions prior to intervention from pre interviews**

##### **4.3.3.3.1 The female students were not sure about the idea of mixing both genders and how the male students and families would understand these kinds of relation**

The female students said that they were not sure about this step and whether their families would understand the situation. They had doubt about how the male student would act and understand the type of relations between both genders. They agreed to have a risk and try the new change in their online classroom. One female student said *“ we are used to being separated from males but nowadays we need to understand each other more, the male is a father and brother and future husband, If mixing with them physically would harm our religion we are fine to mix with them electronically”*. Another female student added *“ I am not sure if my family will understand the situation! They might think that this process is just the beginning of mixing physically and this would not be acceptable!”*

##### **4.3.3.3.2 The male students were excited about the idea of mixing both genders online**

Male students were excited about the idea and happy that this could happen in Saudi Arabia. They promised that they will act as though they were their sisters and focus on their study. They said it does not matter if I have a boy or girl as classmate because everything will be electronic and we will help each other in sharing the knowledge. One student said *“I like the idea of mixing us, it does not hurt our religion or our culture, we can now understand the opposite genders point of view better than before!”*

#### **4.3.3.3 The male lecturer finds it easier to control online class with both genders**

The pre interview carried out for a male lecturer from the USA who is used to teaching students online all over the world. He had a contract to teach post graduate students in this private university. He was helpful to manage the course for a short time, about 4 weeks and he was happy about the idea of mixing both genders electronically. Hence, he is from a different culture where males and females are mixed in real life everywhere, he did not see any problem dealing with such class. He said “it is a matter of time and then Saudi students will be used to it”. He admitted that it is a sensitive issue for Saudi people but they have to deal with it and give regard to their culture and religion. He taught similar classes to post graduate students and there were no obstacles faced by him.

#### **4.3.3.4 Observation during the intervention**

The researcher added a Facebook page under the subject name; all participants were encouraged to post on the wall. Then the researcher observed the situation on the Facebook page which reflected the students’ ambition to be part of the course and share their ideas. It seems that males were more confident to write and show their real names and pictures. Female students were less active while the males were more confident to write about themselves and their real names and they used their real pictures on their walls. The male students wrote about the course and posted questions, while some of the female students pressed the “*like*” key as sign of their participation and they used nicknames and simple pictures such as flower, bird or a natural view. The lecturer was active and encouraged the students to answer, search and think about specific topics.

#### **4.3.3.5 Perceptions after intervention from post interviews**

##### **4.3.3.5.1 Female students became more confident and involved in the social network**

The female students said that they were not sure at the beginning and were less active because they were not used to discussing topics with the opposite gender. After a while they became more confident in sharing their opinions. They found it difficult when they were asked to form paired groups of two, one male and one female, because they felt that a telephone call might be needed to manage the assignment. It was hard for them and their families to accept a telephone conversation between them. They tried their best to communicate through emails but they were not happy about the results.

##### **4.3.3.5.2 Male students had great experiences working with the female students**

On the other hand, male students found it interesting to work with female students and they said that females are more organised and helpful in managing the assignments. They said we do not make telephone calls between us, the emails are enough to understand each other.

##### **4.3.3.5.3 Lecturer was happy about adding the Facebook page for his subject**

The lecturer was happy about having a Facebook page and he said that he might use it for all of his papers, because this new generation are active on social networks such as Facebook. He said” *it is our job to help students and involve them in the subject the way they prefer and like*”. He said that the idea of the assignment was not good at this point because the students were not used to being classmates. He said that he received a lot of emails from female students to

change the idea, making two females work together rather than male and female students paired.

#### 4.4 Summary

After collecting the data it revealed that there are important issues in controlling the results of the study. A summary of these issues are shown in Table 4 below.

**Table 4. Summary of the Findings**

Religion	As Saudi are 100% Muslims, religion plays a significant role in controlling the people's behavior. In Islam physical interaction with the opposite gender is not allowed. On the other hand, any other way of interaction such as electronic interaction is OK.
Culture	Saudis have a strict culture where men and women do not interact in public. This affected the students attitude in using nicknames instead of their real names.
Learning Environment	Both genders are isolated in their schools and universities in Saudi Arabia which affected their attitude in attending online courses and participating with their classmates.
Technology	Technology is available in Saudi but some of the universities do not activate it for the students. Most of the students do not have an account on Facebook and this may affect their study.
Teaching Method	The way of teaching in Saudi is mainly one way of learning. The lecturer teaches and the students receive with not much interaction.
Social network	Most of the participants believed that social networking suits informal interaction more than formal interaction.

This study depends mainly on the action research to collect the data from three different universities in Saudi Arabia. Even though action research is time consuming for the researcher, it helps to involve all participants in the situation. It encouraged them to improve and widen their views about the world around them. The intervention used in this study could encourage the lecturers to break the ice and think about involving the social network in their curriculum. The only weaknesses for the action research in this study is the time consumption, but I would suggested that each cycle should take about one semester to reflect the degree of improvement that students could attain.

## 5. Discussion

### 5.1 Introduction

This chapter presents the summary of the findings and discussion of the results in accordance to the objectives of this study. There were some main aspects that affected the results of this study such as; learning environment, religion, culture, technology, teaching method and social networking.

### 5.2 Learning environment

This study revealed the huge differences between the education system in New Zealand and Saudi Arabia. The participants who were mainly Saudi students (7 males and 4 females) had the chance to complete their studies abroad in New Zealand and experience the new culture of education. All these students were granted scholarships by King Abdullah, the King of Saudi Arabia to complete their post graduate studies. All of the participants agreed that there were big differences between the ways of studying in Saudi Arabia and the ways of studying in New Zealand, especially in the universities.

The use of work groups was not an important element of learning in the Saudi Arabian universities, but it is very important in the New Zealand universities. The use of work groups emphasizes the need for mixing both the genders in the learning process. Working in groups highlighted the problems that the students faced in dealing with the opposite gender; the male students preferred having fellow males in their group as they saw that it was easier for them and they felt more comfortable. This preference was in line with their cultural practices that never allowed for the male students to mix with their female counterparts. On the other hand, the female students found it more difficult to deal with their male counterparts in the group, because of the dressing they were required to put on; they needed to wear the Hijab at all times while some wore the Niqab to control their freedom. The distance between the group members was an issue for both

Saudi genders. Both the Saudi boys and girls preferred not to be in a group that had Saudi members from the opposite gender. This reflected the cultural restrictions. Surprisingly, there was a gender preference for the students and the lecturers; the Saudi girls preferred a male lecturer while the Saudi boys preferred a female lecturer in New Zealand. The Saudi female students felt that the male lecturer was more understanding and respected their appearance. On the other hand, the Saudi male students preferred to have a female lecturer as she reminded them of their mothers by taking care of them while they studied abroad.

### **5.3 Religion and culture**

The first cultural shock for them was mixing both genders in the universities, which was the total opposite in the Saudi Arabian system (Doumato, 2003). It was typically evident that the idea of mixing both the genders was a very sensitive issue for them, as they were Muslims and Arabs. They explained that the idea of segregation in Saudi Arabia was derived from two aspects; i.e. religion and culture.

In addition, this study revealed some important changes for the participants such as: they became more open-minded and had the chance to express their thinking and way of discussion with the opposite gender. The participants feel free in addressing their real names and not being shy. It gave each gender the opportunity to understand the opposite gender's mentality and characteristics. Online communities provided the participants with a chance to express themselves and share their experiences away from cultural restrictions, which resulted in appreciation from both sides. On the other hand, the cons of online communities are that they spent more time on the computers and neglected their family members in real life. Another con is that in an online community, there are some unacceptable topics, which are against the religion, and customs of the Saudis and this could affect the person's thinking. Alsaggaf believes that his study will benefit the Saudi culture without breaking the rules. Parents, schools and media

have the responsibility of showing the advantages and disadvantages of online community in order to achieve progress in the Saudi culture.

Management educators classify their students as millennial students (Reinhardt, et al., 2009). This classification is derived from the fact that some students were involved with computers since they were kids. In addition, the students who practiced the computer-mediated communication could get better knowledge and exchange of ideas than face to face learning. Wankel (2009) has explained the different types of social media that suit the teaching approaches and issues such as Facebook, blogs, YouTube, Twitter, MySpace and Virtual worlds. It is an undeniable fact that the rising popularity of Social Networks in education has its benefits as well as its disadvantages according to its supporters and proponents. Today, the use of the internet is an important part of people's lives, to such an extent that if internet connectivity is disrupted for prolonged periods of time at a school or in a corporate setting, a feeling of helplessness seems to occur and many corporations like Amazon, Facebook, Microsoft, and Google stake their entire businesses on the user being connected to the cloud.

One of the special characteristics of Saudi education is the separation between men and women except the kindergartens and some medical schools. This separation is related to in respect to the social status of women in Islam. Mixing between genders is not acceptable from a Muslims' perspective and the Grand Mufti for Saudi Arabia from 1993-1999 wrote about the danger of mixing genders in the work force. The Grand Mufti Bin Baz addressed the danger of mixing genders, which could affect the family and the society. He argued that the Quran provided some characteristics about the women and the importance of following Allah's orders. Each gender has its own character that suits him in managing his life in order to ensure balance from inside and outside home. According to the male characteristics, they are expected to work outside of the home and be responsible for financially supporting the family. On the other hand, women are responsible for working at home and are generally more capable than men in taking care of their children. According to Bin Baz, this balance ensures a quiet and safe environment for families and society. In addition, if a Muslim woman would like to work outside her home she has to choose a suitable place and work

with the same gender. This restriction is derived from the Quran orders for females such as: women need to wear Hijab or Jilbab, which is a dress to cover their bodies and their faces in order to protect them from strangers when they need to go outside their homes.

There are other orders in the Quran for women, such as that they should not have any decoration on their dresses or makeup on their faces in front of males who are not Mahram (meaning, the male relative such as; husband, father, brother, son, uncle and nephew). This order is important in the Muslim society because these adornments could attract the opposite gender, which may lead to immoral relations. Bin Baz used all these examples to convince the Muslims about the danger of mixing both genders and how women will not be in a safe environment alone with strange men. He continued saying that Islam has forbidden *Khalwah*, where one man sit with one woman in a closed area without any Mahram. Therefore, all these are signs for the forbidding of mixing genders in the workplace or place of study. The Grand Mufti of Saudi Arabia presently is Abdulaziz bin Abdullah Alsheikh who also has the same point of view. Doumato (2003) argued that women are segregated from men in the public life such as; schools, universities and work. He also mentioned that women are not allowed to drive in Saudi Arabia as part of their culture.

Segregation between genders is not related to Muslim communities only; it is an issue in the western world as well. Wiseman (2008) mentioned the study that was carried out from 46 different nations to investigate the idea of segregation in national education systems, and the results were surprising, as there were no consistent enrollment differences or achievement advantages between countries who segregate between gender and the ones that do not. The act of segregation is also compulsory in the restaurants and cafes in Saudi Arabia. Manning (2002) reported that even the American companies support gender segregation in Saudi Arabia such as McDonalds and Starbucks. Even though those companies stick to their rules in running their businesses around the world, they accept the Saudi customs. Moreover, some of the businesses do not like the idea of segregation, but they prefer the profit and winning a business in Saudi Arabia rather than not having one. They agreed to have two different sections in each restaurant one for

the males and the other one for the families with two different entrances for each section. Therefore, segregation is everywhere in Saudi Arabia and is part of its culture and religion and that has hardly changed.

#### **5.4 Teaching method**

Moreover, the Saudi students explained the relationship between the lecturers and the students in Saudi Arabia in the learning process. The lecturers in Saudi Arabia are both the directors and the instructors of the paper. The students played the role of listening to the lecturer and following instructions; the lectures actually gave the students 100 % of the course materials, hence, the students had no extra research work to do. The opposite was true in The University of Waikato where the students had to do extra research in addition to what the lecturers had given them in class. It is not surprising that they suffered at the beginning of their study at The University of Waikato as the lecturers, who were the directors, directed the students and most of the responsibility was placed on the students' shoulders.

#### **5.5 Technology**

Online applications are a new innovation for Saudi students, thus, the use of social networks for learning at The University of Waikato proved to be quite challenging to the Saudi students as they found it very difficult to navigate. According to Bartome (2008), the use of such applications in the universities mainly focused on creating efficient and sound systems besides simplifying the course delivery; but the participants did not agree that the online applications at the University of Waikato were easy or simple as they found difficulties in navigating, adding papers or following the assignments' instructions. They admitted that there was not enough adequate training or seminars of how to use them; in addition, all the online papers had different standards or formats, so each presented an additional challenge. Each paper has its own method of releasing the videos or submitting the assignments. The participants described the learning in New Zealand universities as a Personal Learning Environment (PLE), which used unique tools and social networks such as Moodle (Degenne & Force, 1999).

Both genders were using the social networks to connect them with their friends back at home and with their families. All of the participants had an account on Facebook but they preferred to protect their private affairs by putting their information confidentially (Acquisti, Alessandro, Gross & Ralph, 2006). The Saudi students preferred to stay anonymous on Facebook as they felt that there was no need to divulge a lot of information about one's self. According to the Saudi culture, privacy is given a lot of consideration and exposing personal affairs online is greatly prohibited. For Saudi girls, personal information is strictly preserved and protected; they are stricter, sharing their information and they never put their own pictures on Facebook walls because they do not trust the other social network users who might use their pictures in a bad way. This sensitivity concerning posting personal pictures was derived from their culture and religion. These findings corroborated the findings of Schepp and Schepp (2009) as they found out that women exerted more protection on their personal information and regulated their profiles to be private. On the other hand Burton (1992) found out that more women posted photos on Facebook; this did not agree with the interview findings conducted with the Saudi girls as they did not prefer to display their own pictures on the social networks. Moreover, Schepp and Schepp (2009) explained how women used the social networking sites to expand their social relations which reflected on the Saudi girls' situations as they liked to be linked with their families in Saudi Arabia, hence, they care about attending their families' parties online. Starthdee (2005) agreed that women noted to demonstrate their relationship related to their families or romantic relationship. The findings demonstrate the same idea that the women are more sensitive to family bonds, thus, they take the advantage of technology to keep in touch with their family members.

From a Saudi perspective the literature bring out an idea about the preference of online learning for the women in Saudi Arabia and the findings agreed with that. Both genders agreed that online classes suit women in Saudi Arabia who have other responsibilities at home, for instance, taking care of the children. According to Reem, this type of learning helps women not to mix with the opposite gender and break the rules of Saudi culture (Murphy, 2009). Alsaggaf (2004) found out

from his study about the effects of online communities on the offline community in Saudi Arabia, that males and females liked the idea of online communication between genders as they could express their feelings without much regard to the cultural restrictions; this agreed with the findings of this research. In this study each gender preferred using online communication with the opposite gender because it gave them the freedom of socializing with each gender. The students used SMS or emails to contact the group members because they do not require face to face interaction.

The use of social networks in the university's learning process is regularly reinvented to adapt to new and innovative applications of information technology. These efforts in the learning process mainly focus on creating efficient and sound systems apart from simplifying course delivery by aligning the learning process with technology. Social networks offer dynamism and personalization of the learning process, hence, the term Personal Learning Environment, PLE, can be appropriate to invoke, using unique tools and social networks. Dalsgaard (2008) illustrates that social networks enable a student to determine the rate crafted on his or her unique insight, needs, experiences, and differentiate the known from the unknown, recognizes resources to stimulate learning efforts and reinforces personal beliefs. In this case, social networks utilize technologies such as wikis, discussion forums and Blogs to establish the learning process among the university students.

The effectiveness of social networks is ingrained in the benefit of other university advancement efforts. A university's aim of providing appropriate education to students entails many facets. These facets include: diverse technology, administrative procedures, classroom organizations, social factors, instructor's pedagogical approaches, logistical factors and curricula. This phenomenon in university learning process can be critically assessed to determine the penetration of the social networks' effects at the student level, institution level and community level. The assessment can be achieved through a system of learning benchmark.

People access the internet through various methods; the common access methods used presently are: leased lines, broadband, packet radio, fiber optic and WiMax connection, among other methods. Internet use globally has been on the rise each-day (Forester, 1985). With market permeation, the segment of fast growth is diminishing in the developed countries, whereas increasing in the developing countries such as Asia, Latin America, Africa and the Caribbean is increasing. Many international organizations, for instance, the United Nations, have argued that internet access is a human right. Sustaining this assertion, some countries such as Finland, Greece, Spain and Estonia have already entrenched it to form a part of human rights in their respective countries (Heeks, 2001).

Margetts (1999) argues that, although the internet has been evolving for over forty years, its impact in the Middle East has been a recent phenomenon. In Saudi Arabia, internet access to its citizens was achieved in 1999. Since its introduction, the government has played an important role in influencing its use by exerting more control. The government only permits its citizen to access the internet contents once it feels confident that it is safe and is compatible with the Islamic culture (Heeks, 2001). The Saudi government has implemented internet filtering strategies by instituting proxy servers between the government owned internet connection and the servers connecting the rest of the world. The Saudi government has censored internet sites which include; sites with provocative attitudes, holocaust sites, sites linked to opposition political groups, Islamic extremist's websites and free web hosting providers among other sites (Margetts, 1999). However, other sites such as alcohol related sites, religion and media are sparingly blocked. Despite the government's endeavour of streamlining the morals of Saudis by filtering specific sites, it does not filter sites which appear outside the prohibited context. Another issue, which has been, linked with internet access in Saudi is the language. The medium access language of the internet is English, accounting for the majority of home pages on the internet. Saudis who are not well versed with English are disadvantaged. However, the recent developments in software production have eased the problem of access, although some of these softwares have reported some errors.

## **5.6 Social network**

Another area of interest in social networks is the issue of anonymity. Social networks do not really embrace face to face contacts; hence, it is simpler for an adult to be open and honest about a phenomenon in this context. However, anonymity with social networks may distract adult learners because some people may opt to disseminate false knowledge (Papen, 2005). Social networks have become increasingly integrated in the education systems of most universities, hence, creating multiple impacts on the students, educators and administrators.

The chief role of the social sites is to provide a means for an individual to make links with others. In an education setting, social networks have surged, sharing knowledge between lecturers, students and among the students themselves, maintaining or finding old and former classmate and enhancing professional growth and development in a student's area of discipline. Social sites such as LinkedIn and Sparkpeople are commonly embraced in higher learning institutions, thus, offering student opportunities to network with educators, other students within and outside the learning environment. Social networks have established a new social dimension, hence, enabling the students to develop increased awareness. By interacting with the social network sites, the students' knowledge on global issues is guaranteed. The student develops new opportunities in exploring the social norms, developing technical skills and exploring the common interests. By constructing a public image, the students are exposed to the challenge of defining themselves (Degenne & Force, 1999). This is because, most of the social networks prompt the user to create a profile which exposes essential aspects of their identity, memberships in different groups, ideas they value and their likes and dislikes, among others. This is because these sites are visible to the instructors, parents and to the whole public in general. The students who are paranoid of their vulnerability are able to determine which information is appropriate for them to publish.

Social networks such as Facebook, Wiki, Yammer, Twitter, Blogs, podcasts, e.t.c., have been embraced to deliver education to adult learners. These processes have occurred as a result of the internet (Papen, 2005). Social networks have increased self-education and promoted anonymity among the adults. Adults are

able to share with the other adult learners regarding a certain area of interest, hence, through these interactions, they can increase awareness. According to Papen (2005), social networks support commitments towards sharing information, instigating newcomers and lengthening shared knowledge through aspects such as shared experimentation, problem solving and liberated inquiry.

Consequently, the social networks have been blamed for consuming most of the students' time which may have otherwise been valuable for doing other important things such as studying, doing research or engaging in group discussion. Whereas the unforeseen use of social networks and its related applications in the universities seems to be worthwhile for learning growth, they possess a serious social threat that may otherwise jeopardize the main goal of the technology. Facebook, a common social network site, has been on occasions summoned to court over major privacy issues (Delta & Jeffrey, 2002). Major social networks, such as Facebook, have hundreds of million users and these users have different opinions, attitudes and mindsets. Adding to this, Facebook provides several tools and resources which monitor the activities of every user; Hence, encompassing the experience that students have with the social networks sites such as MySpace and Facebook, it is obvious that integrating the social networks in a university's learning environment might be another Facebook within the university's periphery, thus, promoting less learning or leading to an inappropriate learning culture (Delta, and Jeffrey, 2002).

The social media has had a long historical background in society. They can be used to accomplish housework responsibilities, connection to the social networks can be linked with a telephone as a communication mechanism available and widely embraced at home. A study on the telephone services revealed that the women spend more time than the men talking on phone and also that many women work as telephone operators (Burton, 1992). Generally speaking, young women have closely been linked with comprehensive and frivolous use of telephone technologies for social reasons. Consequently, women's use and impact on the growth and development of computers has been trivialized whereas the essence of computer development has been masculinized (Degenne and Force, 1999).

Women use social networking sites to expand their social relationships. According to Schepp and Schepp (2009), the female participants in a survey carried out in 1997 to unravel the inspiration of Facebook users, scored highly on a social scale for posting photos on Facebook (Burton, 1992). Consequently, a survey carried out on a blog sustained by MySpace, found out that more women wrote blogs, family, romantic connection, healthcare and friendships. A research on the social network users at the university argued that women were more likely to show friendship in the context of publishing pictures of their friends, naming their best friends and composing poems about their friends. Consequently, women were noted to demonstrate their relationship related to family and romantic relationships. A major analysis of gender balance on MySpace asserted that the men and women tend to have a majority of “Top Friends” from the opposite gender (Strathdee, 2005).

Privacy has been a controversial issue linked to the social networks users. Many studies have proved that a bigger difference exists between men and women. According to Schepp and Schepp (2009) women exert more protection on their personal information and regulate their profiles to “private”, consequently, women tend to sift the information they post on the social network sites. Despite the concerns about privacy, studies have indicated that more women are more likely to maintain updated photos of themselves. Although, men and women users of social Medias show distinct motivations and behaviours they support some similarities. For instance, a study that investigated the veracity of information shared on social networks by college students found out that men and women were likely to give accurate information about their partners name, birth and class schedule.

The increasing rise of social media among women rather than men has brought with it opportunities for more participatory and new social dynamism. In the present society, social media tools have become a daily pattern in the women’s lives, unifying their online and offline experiences and becoming the dominant instrument of social interaction and interdependence. According to research carried by Strathdee (2005) about 42% of the women in the US

participate in social media many times in a week as compared to the men. As they spend more with social networks, women spend correspondingly less time with mainstream media. Women, on a large scale use Facebook and MySpace, blogs, forums and discussion forums and twitter follow in that order. Blogs wield important impacts on the women than the men. Strathdee (2005) argues that the women's posts on blogs are more captivating; about 80% of women spend their time online.

Just like other countries, the rise in the usage of Social Networking websites in Saudi Arabia is a natural step towards the freedom of actions by users. There have been both 'people for' as well as 'people against' such drastic usage of the tools but as long as internet access to these websites is not restricted, one would find it very difficult to keep control on the media, the journalists as well as the common people who use such tools. There are numerous Saudi individuals who are expressive with blogs on various topics as well video postings of individuals who need to express themselves. These content types in turn spread like wild fire using social networking sites such as Facebook and Twitter that act like a web and interconnect the entire population within the kingdom and internationally. An example can be of a person who decides to write on a controversial subject that affects the country and other followers comment, like or share the content which then moves from the blogosphere to the social networking profile updates. These are then visible to the entire network of friends if commented or acted upon. In other words, both the individuals as well as the government need to be watchful of what they post and the repercussions that it can have upon the masses.

Social networking comprises mainly of building online communities and linking them together symbolizing a mesh. People with common interests and activities would come to a common forum to express themselves. Almost all the social networking sites are internet based and use Web 2.0 technologies like micro blogs, video, chatting and other tools. In addition to keeping users in touch, social networking helps in niche networking concepts wherein a particular niche hobby or task is created as a platform for users to exploit. The researched revealed that there are common features that all the social networking sites follow: they have the ability to post a profile including educational information, they can post

pictures and albums, there are privacy settings that let you control who can see what, they have the ability to search for members and block unwanted ones, and lastly, a person can be part of a group of like-minded individuals.

Internet in Saudi Arabia was running for the Saudi government benefit until 1999. After that time, it was opened for the public access with regard to the Saudi culture (Altawil, 2001). The e-learning and distance learning had an interest from the Saudi women. The importance of e learning for the Muslim women is immense because they preferred to be educated while they are in their homes and without separate them from the family environment. Hence, Reem continued encouraging the women who needed balance in their life between taking care of the children at home and education to take the advantage of technology as way of developing their skills rather than wasting their time (Murphy, 2009). There are advantages for the Saudi women to continue their education through online courses, for instance, there is no need to move to another place to complete the degree. The most important advantage for the women in Saudi Arabia is that they do not need to mix with the men and break all the rules of their culture. In addition, there is an advantage from the financial point of view because they do not need to take their children to childcare and pay for them. On the other hand, the disadvantage of an online degree is that some institutions are not accepted and approved by the Saudi Ministry of Education.

Kholood agrees about the importance of technology in the education system in Saudi Arabia in the era of globalization but with some restrictions. She believes that the more the Saudi students are open to the world through the internet, the more they fall into danger of losing their beliefs and cultures. She commented that the Saudi students would be more westernized by following some strange festivals such as Valentine's day, which is derived from western culture through the electronic media. The responsibility will, thus, be on the ministry of education to encourage its students to practice self-learning from early age with regard to their culture and religious awareness. Therefore, religion and culture are the most important aspects in the Saudi learning, which ensure nation building for the country. From another point of view, Al-Saggaf (2004) studied the effect of online community on the offline community in Saudi Arabia. This study focused on 15

Saudis between the ages of 15 to 45 years (7 males and 6 females). There are pros and cons about this study, especially in a strict context such as Saudi Arabia where segregation is compulsory in real life.

Online social networks provide both the teachers and the students with a platform to interact positively beyond the physical restrictions of the school's or college's walls. This enables the teacher to provide personal support, track as well as statistically measure the performance of the students. When technologies enter the classroom, like social networking, micro blogging, wireless devices, the students get a chance to express themselves more easily. There is a distinction between digital natives and digital immigrants, where education can be reformed by helping the teachers to change their pedagogy to suit the 21<sup>st</sup> century and adapt to the tools at their disposal. However, the media has a big role to play in bringing about a positive picture of Facebook, Twitter and other tools. In addition, there exist some limitations that need to be taken care of. For example, one's private life should be private and not exposed to the whole world on Facebook. A certain sense of maturity needs to exist while exercising those decisions.

## 6. Conclusion

### 6.1 Introduction

This research elaborates on the study about the effects of the social media such as social networks on the female university students in the context of a gender segregated system that is Saudi Arabia. The results clearly reflect that social media has a positive effect on collaboration of students as they can keep their culture and religious values without the physical intermingling of people of both sexes which is a requirement to their religion and culture. An exploratory study was carried out for post graduate Saudi students at The University of Waikato. Students from both genders were granted scholar ships from the King of Saudi Arabia “King Abdullah”. They had the experience of studying in two different cultures, in Saudi Arabia and New Zealand. They had good experiences with the mixed gender situation at The University of Waikato.

An action research followed to interpret the importance of social networks in the education system for Saudi females. The segregation between genders in Saudi Arabia is a big issue at the universities but with the appearance of social networks such as Facebook, both genders were able to interact easily without being present physically in the same place. The action research took place at King Saud University and Imam University in Riyadh. The rapid development of technology has provided a new dimension of how people accomplished their daily activities. Social networks represent a technology which is prevalent in the modern society, and has simplified interactions between people of all ages in society. A social network is designated as a social system which is composed of individuals or organizations which are connected together by explicit brands of interdependency. The interdependency can be in terms of affinity, friendship, common interests, dislikes, common beliefs, Knowledge or financial exchange among other interests. The major social networks that were embraced included: MySpace, Orkut, Bebo, Facebook and Cyworld, although others such as Wikis, Blogs and Really Simple Syndication (RSS) have gained prominence in the

institutions of higher learning. Social networks provided simple accessibility due to the fact that they have been built on Web.2.0 platform (Schepp and Schepp, 2009).

In universities, social network technologies have presented a great potential in their capacity to transform learning. Perhaps this is due to its nature of interactivity, prompt and holding of ubiquitous abilities. This means that they can be used to provide avenues for both the students and the instructor's participation, create pressure for new institutional arrangements, and results in practices and frameworks that will establish collaborative participation in the learning process (Cox et al, 2003).

MySpace, that was introduced in August 2003 and Facebook in February 2004 were the major players in the social networking platform. To state the popularity of these platforms, MySpace today has over 34 million users as by March 2011 and a revenue in excess of US \$ 385 million while Facebook leads the pack with over 600 million users, revenue in excess of US \$ 2 billion and ranked as the number 2 most visited website in the world. With the recent implosion of micro blogging websites such as Twitter (200 million users, March 2011), the online social networking space is seeing some heavy activity.

Social media tends to be short and informal, unlike emails. Additionally, search engines and crawlers are not able to access email records due to privacy but profiles of bloggers and social networking website members are optionally available to be indexed.

And as the logic follows, where there is honey the bees are sure to follow. Corporations, individuals and entities from all walks of life joined the bandwagon of social networking, where every website literally had a blog or twitter feed that others followed or a MySpace/ Facebook fan page that people could "Like" and comment on. The educational sector has also taken up to social networking by storm and this is reflected in the discussions that students have of a particular topic and the willingness of peers to blog and contribute about certain topics. Social networking has become one of the most powerful tools; university as well

as school students are using these tools to interact among themselves and with the institutions; thereby, representing a mesh type approach. As time passes on, the average age of users' decreases and it is not surprising to see primary school students using such means of communication in their formal educational lives.

By the year 2011, a large number of Facebook users were in their teens and represented primary, secondary and university students. Hence, with an appropriate understanding of the role that these technologies play in the lives of their students, colleges and schools can interact constructively and market selective information thereby achieving many goals at the same time. Moreover, Al Bawaba(2011), reported that the number of Arabs using Facebook increased drastically by the middle of 2011. They reached 27.7 million users according to the second report of the social media in Dubai. He suggested that this incensement was attributed to the changing of the social network purpose. The Arab people found Facebook to assist them in their political practices, regardless of its real purpose as social network (Al Bawaba , 2011). Twitter also had a noticeable focus from the Arab users as it reached 1.1 million users by the middle of 2011. The report listed some countries that have great numbers of Facebook users, such as Arab of Emirates, Qatar, Kuwait, Bahrain and Lebanon.

Attendance was given much consideration in the classes and there was special consideration for the number of absences in each semester. After three absences the student was given a warning and with the fourth absence, the university did not agree to the student continuing attending the subject, hence, the student failed the paper, unless there was a medical report explaining the reason of his or her absence. The female supervisors played a noteworthy role in the class as they kept an eye on the class sessions, took attendance and checked the identities for the students just to make sure that they were the right students registered in the paper. The male lecturer depended on the supervisor's observations because he could not imagine the situation in the female campus. The lecturer mainly called out the names through the microphones and asked each student to read a chapter of a book while he interpreted. Moreover, the supervisor was responsible for spreading the test sheets for the students and observing them during exam time.

The students were registered at the start of the year and were given the subject's materials to study at home. Later, the students were required to sit for the exams at the end of the year in the university campus. The education system realized the difficulties for the students through that way of learning and they introduced distance learning to help the students to be more connected to the university. The university altered the traditional way of home-based students to online learning. The new courses were online and linked to all the students who could not find a place in the university. This improvement made a great difference in the students' life. The students were more likely to be involved in the subjects and could see the lectures online. The problem here was that there was not much interaction between the lecturer and the female students. In addition, the female students could not hear their peers' voices during the participation. Furthermore, all the online courses were carried out by the male lecturers; the female lecturer was not engaged in this type of learning even if the students were all females.

There were complexities facing the Saudi students in handling online applications at The University of Waikato; on the other hand, the use of social networks, for instance, Facebook in the learning process proved to be very prosperous. Both the male and the female students agreed that The University of Waikato had to have an online application for the students, but they said it was hard to navigate and students they desired a lot of tutorials before starting the university. The male students were more involved in the online learning process than the female students. This was due to the fact that they had more confidence to use new ways of learning than the female students. The online experience for the female students was limited, as it was technical for them to use or navigate into the social networks, add papers and submit assignments. Both the male and the female students who participated in the online learning process said that there were pros and cons for using the online process.

According to them, they considered the online papers to provide an easy way for transferring knowledge. The online paper also suited the female students more than their male counterparts because they were more involved with the family at home. In addition, the online paper suited the New Zealand education system more than the Saudi system because the students in New Zealand depended on

themselves. It is also true to say that the online papers suited the female students solving the problem of mixing with the opposite gender. It also suited the graduate students, who were more responsible than the undergraduate students. Moreover, the online papers suited the Saudi culture especially if the lecturer is male and students are females.

In contrast, the online papers presented some challenges to the students. The students had the idea that a person might lose his/her speaking skills by using the online paper. Moreover, online papers prevented the students from enjoying the experience of learning in the same class with their classmates. Also, some of the online papers are outdated since they were recorded a long time ago and have not yet been updated. Online papers do not provide an opportunity for the students to make presentations in the class, hence, not boosting their presentation skills and personal confidence. Online papers do not value attendance of the students as much, which is one of the main aspects for the education system in Saudi Arabia and they found it hard to adjust to an online paper.

Both genders were fond of the idea of using social networks, especially after their experience overseas. They appreciated the technologies that linked them with their families and friends back at home. There are some applications, such as Skype, that helped them to connect with their families and friends in the other parts of the world for 24 hours. They added that Facebook and Twitter were the most common and important social networks which were available on I-phones and this made it simple to access them anytime and anywhere. A male participant said, "I feel that I am carrying my friends with me all the time as I have the Facebook application on my I-phone". A female participant also added, "I attend most of the events in my Family house electronically which is great, I saw my sister in her wedding electronically!" Both genders used their real names in the social network but there were some restrictions in adding their real pictures especially for the female students. Actually, the female students were stricter than the male students in adding the opposite gender to their friends or contact list.

The students contacted their lecturer through emails if there was a need, but it hardly ever happened. If they had any query or matters arising, usually they

contacted their supervisor; for instance, if there was an adjustment to the lecture time or the exam schedule. Thus, they contacted the supervisor more than the lecturer. The students pointed out that the subject was not so demanding, thus, class attendance was not an important element. Instead, they wished to have an online paper that did not require their physical presence in the class. The lecturer did not support the idea of giving the students a research assignment because they might allocate it to someone else to do it for them. As an alternative, the lecturer liked to ask the students to read a chapter of a book and summarize the main points. The lecturer was conscious of the relevance of using social networks in the study process even though he did not support the use of Facebook in the education system.

## **6.2 Limitations of the study**

This study was carried out through two stages; first stage was in New Zealand and the second one in Saudi Arabia which forced the researcher to travel from Hamilton to Riyadh the capital city in Saudi Arabia. It was a matter of expense, as the researcher needed a plane ticket for her and her family. Moreover, the methodology chosen was action research, which was time consuming. Each cycle lasts about four weeks and there were three different cycles. In addition, each cycle took place in different universities in other words the researcher needed an approval from each university's administration which took time to receive replies. The researcher is a Saudi female, which means that face to face interviews with male lecturers were hard even if they are in the same city. The researcher used telephone interviews instead of face to face interviews to solve the sensitivity of this issue. During the collecting of the data in Saudi Arabia a public holiday for all Muslims (Eid Al Adha) cut some of the time and delayed the universities' approvals. Interviewing Saudi females and recording their voices was a concern for most of them but the researcher promised to destroy all the materials for collecting the data.

Even though this study had limitations it opens new window and opportunities for Arab universities who share similar culture as Saudi Arabia. This study could be

done on much longer time for example each cycle could take one semester in order to collect sufficient and give the students time to be more familiar with the social network.

## 7. Appendices

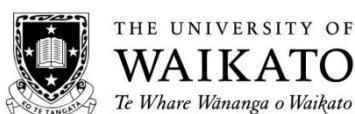
### Appendix A: Consent forms for participants

Stage One:

#### *Participant Information Sheet*

#### *Waikato Management School*

Te Raupapa



#### **Information Sheet for the focus group in New Zealand**

- This research investigates the issues facing the electronic media in the Education sector for Saudi women. This research will investigate the impacts of social media and electronic mediating to improve education outcomes for Saudi women in electronically mixed multi gender classes.
- This research being undertaken by a Saudi master's student Norah Alkahtani from Waikato University in New Zealand. She will interview the female participants and will be assisted by a Saudi male interviewer for the male group. English and the Arabic language will be used in the sessions.
- The researcher will ensure the privacy of data collected and pseudonyms will be used instead of real names.
  - Each participant has the right to discontinue with the interview process whenever he/she wants.
  - Each participant has the right to delete his/her own data within one month after the interview time.
  - The focus group will last approximately 2 hours, and there will be 4-6 participants of the same gender.
  - Tea and coffee will be served during the interview time!

Please do not hesitate to contact the researchers or the supervisor for any enquiry:

- **Researcher(s) name and contact information**

Name: Norah Alkahtani

Email: [nnma1@waikato.ac.nz](mailto:nnma1@waikato.ac.nz)

Phone nz: 0210477484

Phone KSA:0503893189

- **Supervisor's name and contact information (if relevant)**

Name: Bob McQueen

Email: [bmcqueen@waikato.ac.nz](mailto:bmcqueen@waikato.ac.nz)

This page will be translated in Arabic.

Stage two:

## *Participant Information Sheet*

### *Waikato Management School*

Te Raupapa



THE UNIVERSITY OF  
**WAIKATO**  
*Te Whare Wānanga o Waikato*

#### **Information Sheet for participants in Saudi Arabia**

- This research investigates the issues facing the use of electronic media in the Education sector for Saudi women. This research will investigate the impacts of social media and electronic mediated communication and whether it is seen as possibly improving education outcomes for Saudi women in electronically mixed multi gender classes.
- This research being undertaken by a Saudi master's student Norah Alkahtani from Waikato University in New Zealand.
- The researcher will ensure the privacy of data collected and pseudonyms will be used instead of real names.
  - Each participant has the right to withdraw from the interview process when ever he/she wants.
  - Each participant has the right to request that his/her own data be deleted within one month after the interview time.
  - This research will focus on female students in King Saud University by running interviews, observation and surveys.
  - Male lecturers will be involved in the process of this research, but will not be provided the names of participants or their comments.

Please do not hesitate to contact the researchers or the supervisor for any enquiry:

○ **Researcher(s) name and contact information**

Name: Norah Alkahtani

Email: [nnma1@waikato.ac.nz](mailto:nnma1@waikato.ac.nz)

Phone nz: 0210477484

Phone KSA:0503893189

○ **Supervisor's name and contact information (if relevant)**

Name: Bob McQueen

Email: [bmcqueen@waikato.ac.nz](mailto:bmcqueen@waikato.ac.nz)

This page will be translated in Arabic.

## Appendix B:

### Screenshot for the Facebook page for Islamic 103



## Appendix C:

### Screenshot for the Facebook page for Hadith 102



## Appendix D: Saudi boys analysis

Learning in KSA	Learning in NZ
<ul style="list-style-type: none"> <li>• Huge differences between the education system in Saudi Arabia and New Zealand.</li> <li>• Student depends on the lecturer and the textbook of the paper.</li> <li>• No work groups.</li> <li>• No assignments or researches.</li> <li>• Student's mark based on his internal and final exams.</li> <li>• Attendance is important in order to pass the paper.</li> <li>• Each university has rules.</li> <li>• Lecturers are hard to meet at Universities.</li> <li>• Some Lecturers do not prepare themselves for the session.               <ul style="list-style-type: none"> <li>○ Read from a book</li> <li>○ Narrow the curriculum to one text book.</li> </ul> </li> <li>• No need for a lot of search as we depend on the text book and memorize it for the tests.               <ul style="list-style-type: none"> <li>○ Rarely visit the library.</li> </ul> </li> <li>• It is not common to critique others work or disagree with lecturers.</li> <li>• If we asked for small research there is no problem in copy and paste others work as you reference them.</li> <li>• Presentation is not common in KSA and mostly done by master's students.</li> <li>• We need to take 7 papers at least in one semester.</li> <li>• Sometimes it could happen that there are clashes in the timetable.</li> </ul>	<ul style="list-style-type: none"> <li>• Self-learning( student depends on himself most of the time) Participant*((<i>You Walk yourself</i>)).</li> <li>• Work group is compulsory in each paper (some find it interesting).</li> <li>• Student should learn everything about his subject because he might be asked about it.</li> <li>• Depends on assignments and researches.</li> <li>• Tests are mostly used in 300 level papers but not in 500 level papers.</li> <li>• Lecturers are more open to students and most of the time available.</li> <li>• Lecturers are more capable and have a lot of knowledge.               <ul style="list-style-type: none"> <li>○ Provide you with the updated articles about your topic</li> <li>○ Encourage you to say your opinion</li> </ul> </li> <li>• We need to search a lot in the library and spend more time on computers to complete assignments.               <ul style="list-style-type: none"> <li>○ Online databases help us a lot.</li> </ul> </li> <li>• As result of doing assignments we need time for referencing.</li> <li>• Presentations are common at Waikato University.               <ul style="list-style-type: none"> <li>○ Help raise your confidence.</li> <li>○ We struggle because we are not use to it.</li> <li>○ Language could be a barrier.</li> </ul> </li> <li>• Student is asked to write many words in his assignment.</li> <li>• Papers have their outline from the beginning of the course which helps to be more organised.</li> <li>• Some of the assignments are about critiquing others works (difficult).</li> <li>• Lecturers treat PGD students differently (more respect).</li> </ul>

	<ul style="list-style-type: none"> <li>• Assignments depend on testing the English language rather than our knowledge.</li> <li>• Assignments and research is needed to be paraphrased and used APA reference as well.</li> <li>• 4 papers for Bachelor degree and 2 papers for Masters Degree in one semester.</li> <li>• Timetables are flexible.</li> </ul>
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<p style="text-align: center;"><b>Segregation in KSA</b></p> <ul style="list-style-type: none"> <li>• We agree its part of our religion.</li> <li>• It is related to our culture.</li> <li>• It is hard to mix both gender in one institute.</li> <li>• Lecturers are all males</li> <li>• No experience with female lecturer.</li> <li>• We believe that segregation is the best thing for our society.</li> <li>• If there is a mix gender in KSA we will be the loser because everyone believes the women’s story and blames the victim “Us”.</li> <li>• Women in KSA are more spoiled than men.</li> <li>•</li> </ul>	<p style="text-align: center;"><b>Mixing genders in NZ</b></p> <ul style="list-style-type: none"> <li>• It was hard at the beginning.</li> <li>• It is fine to interact with girls here but prefer not to be Saudi girl or Muslim girl <ul style="list-style-type: none"> <li>○ Because we know the rules and feel that there is a wall between us hard to break</li> </ul> </li> <li>• It was a problem when we studied the language and many Saudi girls were with us in the same class <ul style="list-style-type: none"> <li>○ No freedom to speak</li> <li>○ No freedom to explain my ideas</li> </ul> </li> <li>• We like to help Saudi girls if they need but we are afraid of others and how they interpret the action. <ul style="list-style-type: none"> <li>○ It is hard to speak to a Saudi girl and we feel embarrassed</li> <li>○ <i>“I prefer to help Saudi girls rather than helping others but this is the cultural restriction”</i></li> </ul> </li> <li>• Even if we interact with girls from different cultures it’s still hard</li> <li>• Women normally like to be the leader <ul style="list-style-type: none"> <li>○ We figure that when we have group work</li> <li>○ Participant*((Women</li> </ul> </li> </ul>
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	<p><i>like to control))</i></p> <ul style="list-style-type: none"> <li>○ “Sometimes girls use their tears as a weapon against us”</li> <li>○ Example: when we came to NZ in the airport we prayed to God that the person who will finish our passports and luggage is a Man not a Women. Women like to prove that she is the best in the job and make everything difficult.</li> <li>○ But we still need the womens touch on our assignments, it is different because they like to organise the outlook and keep it nice, whereas men like to finish the job.</li> <li>● We prefer to work with guys in the group we feel more flexible.</li> <li>● Having a female lecturer is hard at the beginning but we like the idea</li> <li>● We prefer female lecturers more than male lecturers. <ul style="list-style-type: none"> <li>○ She is more understanding especially if she is an old lady</li> <li>○ More sensitive about our situation as international students</li> </ul> </li> <li>● We found there is no difference in conveying the knowledge between male or female lecturers.</li> </ul>
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<b>Online applications at Waikato University NZ</b>	<b>Social network</b>
<ul style="list-style-type: none"> <li>• The online applications are available at The University of Waikato but hard to navigate</li> <li>• There is no one standard for the papers <ul style="list-style-type: none"> <li>○ Way of submitting assignments</li> <li>○ Way of finding the materials</li> </ul> </li> <li>• We feel if they have one standard for all the papers that would be much easier <ul style="list-style-type: none"> <li>○ Participant*” <i>some of the papers I studied, they ask me to submit the assignment through my web, others ask me to send it through emails, and I got confused</i>”</li> </ul> </li> <li>• Moodle is useful but still find difficulties in navigating it</li> <li>• Each one of the online paper has its way <ul style="list-style-type: none"> <li>○ Video</li> <li>○ Slides</li> <li>○ Files</li> </ul> </li> <li>• We are not used to online papers and that’s why we feel lost</li> <li>• There are cons and pros for online papers: <ul style="list-style-type: none"> <li>○ Pros <ul style="list-style-type: none"> <li>▪ Transfer knowledge</li> <li>▪ Adjust to the changing of the education system towards online learning</li> <li>▪ Suits females more as they want to be with their</li> </ul> </li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Mostly using Twitter and Facebook <ul style="list-style-type: none"> <li>○ About 4 times a day</li> </ul> </li> <li>• One of Participants does not use them <ul style="list-style-type: none"> <li>○ <i>“it is lost time” and “looking for personal stuff which is not useful for me”</i></li> </ul> </li> <li>• These networks are an easy way to interact, comment and express yourself. <ul style="list-style-type: none"> <li>○ <i>“it’s my personal journal, felt like an open book for others”</i></li> <li>○ Keep us update to what’s surrounds us of news and info.</li> <li>○ If you like some one’s writing you just tick the like box and whenever he writes you will be able to read it easily in your page with no need to search.</li> </ul> </li> <li>• We are proud of ourselves and put our real names and pictures. <ul style="list-style-type: none"> <li>○ This helps us in finding old friends</li> <li>○ Helps in adding your friend as they will know you directly from your name.</li> <li>○ Nicknames are not a choice for us.</li> </ul> </li> <li>• It is hard to have the freedom to write what you really want to say <ul style="list-style-type: none"> <li>○ Sometimes you have relatives male or female</li> <li>○ What suits your friend does not suits your relatives</li> <li>○ What suits young ages does not suits old ages</li> <li>○ Participant*”<i>I added</i></li> </ul> </li> </ul>

<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>▪ families</li> <li>▪ Suits women and solve the problem of mixing with the opposite gender</li> <li>▪ Suits the NZ system because the student depends on himself in learning</li> </ul> </li> <li>○ Cons <ul style="list-style-type: none"> <li>▪ You will lose your voice</li> <li>▪ There is no presentation which help to build self confident</li> <li>▪ Most of the papers are recorded and it does not have to be update news about the topic</li> <li>▪ You miss the enjoyment of learning with others</li> <li>▪ Helps build relations with friends from the same class</li> </ul> </li> </ul>	<p><i>my niece and one day their father phoned me complaining about the picture I put on my wall and asked me to change it because it does not suit them”</i></p> <ul style="list-style-type: none"> <li>● Some of them find it fine to add Saudi females to their wall <ul style="list-style-type: none"> <li>○ Add them if they are popular writers</li> <li>○ Add them for certain time and if they annoy me delete them!</li> </ul> </li> <li>● We like that the Face book and Twitter applications are available on the I phone <ul style="list-style-type: none"> <li>○ Makes our life easier</li> <li>○ Easy to carry your friend around electronically</li> </ul> </li> <li>● We believe that these social networks are the spark of the revolution in some of the Arab countries.</li> </ul>
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## Appendix E: Saudi girls analysis

Learning in KSA	Learning in NZ
<ul style="list-style-type: none"> <li>• Huge differences between the education system in Saudi Arabia and New Zealand.</li> <li>• Student depends on the lecturer and the textbook of the paper.</li> <li>• No work groups.</li> <li>• No assignments or researches.</li> <li>• Student's mark based on his internal and final exams.</li> <li>• Attendance is important in order to pass the paper.</li> <li>• Never have the chance to critique others work so it is hard to write a critical review.               <ul style="list-style-type: none"> <li>○ Participant*"<i>lecturer never taught us how to critique others; we normally listen, oh it is one way of learning</i>"</li> <li>○ Participants" <i>it is hard to say your point of view, we receive the information and memorize it without any discussion</i>"</li> <li>○ That's why we found it hard because we are not use to it.</li> </ul> </li> <li>• We never had presentations during the Bachelors degree but we heard that the system is changing now.               <ul style="list-style-type: none"> <li>○ Our sisters talk to us about the change in the education system</li> </ul> </li> <li>• Presentation was not part of the study.</li> <li>•</li> </ul>	<ul style="list-style-type: none"> <li>• Self-learning (student depends on himself most of the time)</li> <li>• It is nice to have the chance to argue even with your lecturer.</li> <li>• Presentation is the main focus at university.               <ul style="list-style-type: none"> <li>○ It is the hardest time for us to present in front of others(boys and girls as well)</li> <li>○ We spend a long time to train ourselves.</li> <li>○ The language is one of the obstacles for the presentation</li> </ul> </li> <li>• The study at Waikato University is nice and good way of increasing your knowledge but it is difficult.               <ul style="list-style-type: none"> <li>○ Participant*"<i>there is a huge responsibility on the student's shoulder, there is pressure, I cannot imagine that Kiwi students can study and work at the same time</i>"</li> <li>○ Lecturers ask for many assignments and the word limit is still high</li> <li>○ Hard to balance between home, family and study.</li> </ul> </li> </ul>

	<ul style="list-style-type: none"> <li>• The assignment in New Zealand is based on New Zealand companies and it is hard for us to understand each company here <ul style="list-style-type: none"> <li>○ For example they ask to research Telecom and the lecturer will not explain the company history because he assumed that everyone knows it.</li> <li>○ It is just like if I spoke about one of the Saudi companies without explaining the history</li> <li>○ The problem is that we understand, but we do not have enough information about the company.</li> </ul> </li> <li>• Assignments outline not clear enough</li> <li>• Lecturers do not understand the difficulties of the assignment and that's why we do not ask them for help. <ul style="list-style-type: none"> <li>○ Participant*” <i>one day I went to the lecturer to help me in understanding the assignment but he started to shout at me telling me how we came from a third world and compare the education system in NZ and KSA, he said: that's why you found it difficult to</i></li> </ul> </li> </ul>
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	<p><i>understand the assignment because you guys will not progress”</i></p> <ul style="list-style-type: none"> <li>○ Participant*” <i>yes we are different and our education system is different from here but I bid if they come to our country they will struggle to adjust to the new environment”</i></li> </ul>
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<p><b>Online applications at Waikato University NZ</b></p> <ul style="list-style-type: none"> <li>● Hard to navigate my web</li> <li>● Hard to add papers online</li> <li>● There is lack of tutorials about using my web and moodle</li> <li>● We need tutorials in Arabic which will be more helpful</li> <li>● The University of Waikato asked us to add papers online but still needs the paper work <ul style="list-style-type: none"> <li>○ We need to see a supervisor for a signature</li> <li>○ If the supervisor approves us online it would be easier for us</li> </ul> </li> <li>● 3 of the Participants have experience in online learning <ul style="list-style-type: none"> <li>○ Lack of communication</li> <li>○ No practice for your speaking</li> <li>○ Save time as you do not need transportation</li> <li>○ Submitting assignments online is fine but tests are difficult because it is hard to type fast</li> <li>○ It suits graduate students but not bachelor students</li> </ul> </li> </ul>	<p><b>Social network</b></p> <ul style="list-style-type: none"> <li>● We did not care about it in the past but since we came here to NZ we think it is the most important thing</li> <li>● Help us to be linked to our friends and family members</li> <li>● There are some applications which are useful such as Skype, oovoo which helps us to see our family in KSA through video call so we can attend weddings online</li> <li>● Social networks are now available on our I phone which is great</li> <li>● It helped us to be linked with all the world</li> <li>● We check Facebook more than 3 times a day, we find old friends and create new ones as well <ul style="list-style-type: none"> <li>○ We add female friends</li> <li>○ We add male relatives ONLY</li> <li>○ We do not put our real pictures because we do not trust</li> </ul> </li> </ul>
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<ul style="list-style-type: none"> <li>○ It suits our culture when the lecturer is male</li> <li>○ We feel attendance is more involving in the education system</li> <li>● We suffered from the classes of male lecturers in KSA because we find it hard to read what is on the screen especially if the materials are numbers</li> <li>● Online learning is a choice for the Saudi government and could save the money spent on students who have scholarships.</li> <li>● There are many Saudi girls who wish to study abroad but there are obstacles facing them and online learning could be a solution</li> </ul>	<p>social networks</p> <ul style="list-style-type: none"> <li>○ We put our real names and no problems with that</li> <li>● Facebook helps to connect us with our parents 24 hours free</li> </ul>
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