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# Demographic Factors Influencing Arab Gulf Student's Use of and Attitudes Toward Social Network Services at Ohio University; Field Research on SNS Member's Relationship

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## Abstract

A social network is an online environment that is characterized by having a connection and relationship. Thus, a social network service is no more or less than an online service, platform, or site that focuses on building and reflecting of social networks or social relations among people, e.g., who share interests and/ or activities. A social network service essentially consists of a representation of each user (often a profile), his/her social links, and a variety of additional services.

It has been noted that most social network services are web based and provide means for users to interact over the internet, such as e-mail, and instant messaging. Although online community services are sometimes considered as a social network service, it usually means an individual-centered service whereas online community services are group-centered. Social networking or social media sites always allow potential users to share ideas, activities, events, and interests with others within their individual networks. This paper will investigate the Arab Gulf student's demographic and cultural characteristics (age, income, educational level, and language [English]) influencing individual's perception, use of and attitudes toward online social networking and sharing at Ohio University. The Arab Gulf states include Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and Unite Arab Emirates. Furthermore, the social network services (SNS) include Google, Facebook, Twitter, YouTube, and E-mail. The present study expects to find correlations (i.e., relationships) between individual's demographic and cultural characteristics and their use of and attitudes toward the technology.

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## Introduction

An important feature of the 21st century in mass communication has been the explosion of communication technologies that enabled individuals, organizations, and nations to acquire information whenever and wherever they want. Furthermore, communications technologies offer inroads into political and economic development. Since mid 1980s, these technologies have been proliferated around the world. Severin and Tankard (1992) support such idea by saying that the mass communications were greatly influenced by the introduction of new mass communications technologies. They contended that the advent of new communication technologies has provided mass communication users more control over their communication behavior/pattern. Because of this communication pattern, there is an urgent need to revise, re evaluate, and develop mass communication theories in order to keep pace with the changes [1]. The top down model of communication cannot and will not work well in contemporary societies of the 21st century because new communications technologies have multiple directions of communication rather than a unidirectional course. Thus, the multiplicity of communications indicates that new communication technologies operate at different levels and directions; i.e., three or more levels/directions, whereas a unidirectional course is seen as top down communication pattern. Therefore, the advent of social network services has furthered the role of communication technology and at the same time impacted unidirectional form of communication negatively.

#### Definitions of keywords

Following are the definitions of the terms and concepts most frequently used in this research paper. These definitions are provided in order to enhance the audience's understanding of the ecological social networking research of social network services. Social ecology: The development of human social activities within a human social system.

Evolution: Is a step-by-step social development that passes through a number of stages in people's relationship(s).

Network: Is a large number of individuals linked together with the Internet social websites. These users share the same interests and activities.

Connectivity: Is the means by which individuals are connected with each other through one or more social network services such as Facebook, YouTube, E-mail, Twitter, Google, etc.

In any event, it is interesting point to find that a number of scholars recognize the new era that allows students and citizens to use the Internet and similar technologies as a civic sphere [2].

#### Theoretical framework

The current study will utilize a number of communications models, and theories as a theoretical framework that explains the nature, types, and relationship between Arab Gulf college students at Ohio University, academic year 2013-2014, and their use of and attitudes toward social network services. These include social ecology model, social ecological theory, and social networking theory.

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#### Social ecology model

Studies show that socioecological models were developed to further the understanding of the dynamic and symbiotic interrelations among various personal, group, and environmental factors [3].

Additionally, many scholars in the field such as Murray Bookchin contended that socioecological models were introduced to urban studies by sociologists associated with the Chicago School after the First World War as a means or a reaction to the narrow scope of most research conducted by developmental psychologists. It has been realized that the importance of these models is embedded in bridging the gap between behavioral theorists focusing on small settings and anthropological theorists analyzing larger settings [4]. Furthrmor, and according to a number of sources Urie Bronfenbrenner introduced his conceptual socioecological model in the 19970s, then formalized as a theory in the1080s, and continually revised by him until his death in 2005. It is important to refer to the fact that Bronfenbrenner's Ecological Framework for Human Development indeed utilizes sociological models to human development. He stresses the fact that the whole ecological system must be observed carefully when he postulated that in this initial theory, and in order to understand human development the entire ecological system, in which growth occurs, needs to be taken into account. Bur later, and in new versions, Bronfenbrenner acknowledged the fact that the impact of both biological and genetic aspects of the person is extremely important and significant [5].

#### Social ecological theory

According to Murray Bookchin what literally defines social ecology as "social" is its recognition of the often overlooked fact that nearly all our present ecological problems arise from deep-seated social problems. Therefore, our social problems are responsible for our ecological drawbacks. Not only this but also our understanding of social problems itself [6].But, present ecological problems cannot be clearly or completely understood, much less resolved, without resolutely dealing with problems within society. Bookchin also contended that social ecology has never eschewed the need for a radically new spirituality or mentality in its call for a collected effort to change society. It is almost impossible to change society within a short time span. Thus, he indicated that prioritizing any form of spirituality, over the social factors that actually erode all forms of spirituality, raises serious questions about one's ability to come to grips with reality [7].

Additionally, Bookchin pointed out that social ecology seems to stand alone, at present, in calling for the use of organic, developmental, and derivative ways of thinking out problems that are basically organic and developmental in character [8].

Talking about evolution, he contended that social ecology also calls upon us to see that nature and society are interlinked by evolution into one nature that consists of two differentiations; first or biotic nature, and second or human nature. But he added that human nature and biotic nature share an evolutionary potential for greater subjectivity and flexibility, and that the second nature is the way in which human beings as flexible, highly intelligent primates inhibit the natural world [9].

Last but not the least, Bookchin stipulated that from everything we know about the socialization of the biological facts of kinship, age,, and gender groups-their elaboration into early institution-there is no reason to doubt that people coexisted in a complementary or a symbiotic relationship with one another. Bookchin pointed out that none of them can exist in vacuum. He explains that each, in effect, was needed by the other to form a relatively stable whole. In other words, no one "dominated" the other or tried to control itself in the normal course of things [10].

#### Social networking theory

The literature shows that unlike the social ecological theory and models, social network theory views social relationships in terms of nodes and ties. The literature also clarifies that nodes are the individual actors/players within the networks, and ties are the relationships between the actors or individuals. Furthermore, the literature confirms that there can be various kinds of ties between the nodes. In simple term, a social network is a map of all of the relevant ties between the nodes under study. Further, sources show that the network can be utilized as a strong determent of the social capital of individual participants. These concepts are often seen in conceptual triangles or squares in a social network diagram, where nodes are the points and ties are the lines [11].

On the one hand, the power of social network theory, and from its assumptions, its difference spring out from traditional sociological studies, which assume that it is the attributes of individual actors. The issue here is whether they are friendly or unfriendly, smart or dumb, strong or weak. And on the other hand, social network theory does not stand at this limit of individuals' attribution, but shows that the strength of relationships, connections, and ties when it produces an alternate view, where the attributes of individuals are less important than their relationships and ties with other actors within the network. Thus, literature shows that this alternative approach, which is very complicated process, has turned out to be useful for explaining many real-world phenomena, but leaves less room for individual agency which is the ability for individuals to influence their success and comrades so much of it rests within the structure of their network [12].

As David Munger pointed out that images are what separate the professional Web designer from millions of casual Web users who've managed to post their own Web pages. Therefore, anyone can spot a novice Web designer in a minute by simply observing how efficiently he or she's used images [13].

At this stage, and after reviewing the assumptions of social ecological model, social networking theory, and social ecological theory, the next section includes review of the available literature.

#### **Review of the Literature**

As previously indicated that communication technologies are the most important factors in the 21<sup>st</sup> century influencing the dissemination of information at a large scale. Scott raised a fundamental question about the advent of social network services when he asked his colleagues the following question; "Has anyone heard of social networking?" The literature answered his question by indicating that it really only started at the late part of the 2005 or early part of 2006 [14].

As mentioned earlier that social networking often involves grouping specific individuals, associations, or organizations together. It is relevant to recognize that there are social networking websites that focus on particular interests; there are others that do not necessarily have the same function or interests. Furthermore, studies show that the websites without a main focus are often referred to as "traditional"

social networking websites not professional ones because they usually have open memberships and probably do not require user to subscribe to it and for free subscription which means that anyone can become a member, no matter what their hobbies, beliefs, or views are. However, it is interesting to know that once users are inside this online community, they can begin to create their own network of friends and eliminate members that do not share common interests or goals [15].

The literature also shows that once individuals are well informed and comfortable with their findings, they can begin their search from hundreds of networking communities to join that can easily be done when performing a standard Internet search. Their search efforts will likely return a number of results including MySpace, FriendWise, FriendFinder, Yahoo! 360, Facebook, Orkut, and Classmates [16].

Some sources show that people are still getting used to the idea of social networks. It will be interesting to see how their use evolves, particularly in term of information and attention market efficiency [17].

The most noticeable thing is that why social network services or what some scholars simply call it social media have been used in education. The answer to such question was found in Meagan Poore in her book titled "Using Social Media in the Classroom". Poore identified four main sets of benefits as a result of using social media in the classroom; The first set is related to education. Despite the criticism addressed to using social media in education such as a waste of time, Poore contended that social media are ideal for education because they are nimble, flexible, easy to use, and often very powerful since they focus on doing one thing only such as photosharing or animation and on doing that thing only. The second set of benefits is intellectual ones that include analysis, interpretations, synthesis, criticism, validation, assessment, evaluation, traditional literacies, visual literacy, media literacy, and functional literacy. The third set of benefits is associated with communication, collaboration and teamwork, participation, and socialization. The fourth set of benefits deals with students' motivations that includes control and ownership, increased students' effort in working harder especially when they realize that their research and studies will be published, audience' feedback could be the most important factor affecting students' motivations to work hard on their research projects, self-publication that makes students to share their work in order to do well, and creativity that leads students to develop their works from a tentative one to a professional and from format to another. The fifth and the last set of benefits is related to management and administration which includes ease of feedback in which most of social media provides students with feedback or comment, tracking students learning in which one can track students' learning development and progress, accessibility off-campus in that one does not have to be in class to access students' school work, communication with parents through the Internet to view their children's work, progress, and communicating with instructors to discus problems [18].

Daniel J. Gansle contended that any of you reading this article remember a time when we didn't see young girls harassed to the point of suicide via MySpace or rival classmates posting disparaging videos of each other on YouTube [19]. He pointed out that at that time, users' Internet experience consisted of clicking their way to CNN Headline News or Yahoo Finance. Tracing back the history of the Internet, a large number of sources indicated that was the mid-1990s, and the Internet boom was on when also the time e-learning startup in Washington, D. C. area until the dot-com bust beginning in 2000 [20]. Gansle also pointed out that during the dot-com boom, companies, individuals, organizations, governments, and virtually everybody else sought a home on the information superhighway [21]. Furthermore, the scholar contended that since it was so new, Internet surfers generally clicked links or typed website URLs into the Web browser's address bar to get to where they wanted to go [22].Gansel also noted that after all, not nearly as many websites made their home on the Internet as the multitude we have today [23].

As Gansle contended that the evolution of the Internet took only eight years, the Internet has evolved into an incredible diversity of media offerings ranging from video to interactive Flash presentations to full-length movies to discussion boards to MP3 music and even Web TV, the Internet continues to shape our lives like no other information and entertainment medium of the past [24].He also added that as people began to consider all the Web has to offer, the old ways of clicking through dozens of disassociated links to navigate to various websites was fast becoming viewed as cumbersome [25]. Therefore, the Internet community invented ways to share links with each other; and not just links alone, but their lives as well [26].

The literature shows that the Internet is simply a way of individuals' connectivity. In this respect, Gansle pointed out that the most fundamental change that the new social internet (a.k.a. Web 2.0) brought about is that the Internet is a place for sharing information rather than simply extracting it individually [27]. Further, he acknowledged that it's all about connecting with others, meeting new people, and sharing common interests and beliefs. It is believed that the Internet It's all about sharing new websites; rating news stories and favorite blogs; commenting on posted videos; and indeed, sharing the ins and outs of our lives in this increasingly interconnected world [28].

In light of recent technological and social development, some scholars who are pessimistic raised a question about the future of the Internet and ultimately about social network services, (SNS). What is the future of social networking? Recently, they've seen several websites featuring "virtual worlds" where users can take on a persona and walk around fictitious towns talking to others. Such phenomenon shows that two popular virtual worlds are Second Life and Cybertown; and for kids, Disney's Toontown. Furthermore, it has been noted that rumor has it that the sites can fast become addictive and time consuming especially when individuals spend much time using SNS. In fact, some have reputedly begun to blur the line between reality and non-reality, a discussion they'll have to leave for the philosophers in the room [29].

Prediction is a tool usually used in visualizing a development and/or progress in which some are predicting that these more personalized virtual worlds will replace faceless, two-dimensional E-mail applications and even Facebook and MySpace. We'll see about that. But for the meanwhile, social networking is an ever-growing trend that is seeing people around the world has become increasingly web-savvy while expanding their online network of friends [30].

Another scholar by the name of Gina Bianchini, CEO and cofounder, quoted Ning as the later saying that social networks are evolving at the outset of online social networking, around, say, 2002, early users had to wedge their personalities into static, cookie-cutter profile pages -it was the price we all paid for the convenience of this new and powerful social tool [31]. Gina also raised a fundamental question in regard to the relationship between companies and network

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when she asked; "How times have changed: Instead of altering yourself to fit the social network, the social network is evolving to cater to you." She contended, "Here's a quick look at how companies and technologies have evolved to more closely mirror the human experience" [32].

Gina indicated that the explosion of data is creating opportunities just in the management of the data in and of itself. She added that once we're uber-connected and getting information online from people we've only met online we need to know more about the "authority" of the people we're following [33]. For example, Enter Klout which is a service that tracks the influence of individuals in social networks can be imported into other products (e.g. StockTwits) where you really want to know more about the person giving you advice [34].

It was a good observation, when Gina noted, "We know that Twitter is leading to customer service opportunities for businesses but the opposite is also true." She added that if you don't manage what is said about you in social networks it could be detrimental. This has led here to say that as the technology evolved, products such as Sprout Social and CoTweet are emerging to help businesses better track and communicate with their customers and leads. Furthermore, she contended that products like awe.sm (I'm an investor) will help you manage the efficacy of your social media marketing campaigns she added [35].

Additionally, sources noted that one of the cooler new products that will emerge in 2011 is being created by Nihal Mehta, who has pivoted from his previous company Buzzd, but I'm sworn to secrecy on what he's up to until he releases it publicly [36].

In addition, Gina noted that she saw the product recently in New York and loved it. It will address the world of what happens when there is an interaction taking place between businesses and consumers when they are increasingly mobile & social [37].

It is an interesting view point when Gina noted that Facebook Will Not be the Only Dominant Player [38]. Moreover, Gina noted that she knows that in 2010 it seems ridiculous to say anything other than "Facebook has won-the war is over" and she know that it feels that way right now.

Obviously, Facebook is so dominant it is astounding. She stressed the fact that Facebook has become this generation's walled garden. Gina seems to be having a strange idea but she was right when she contended 'When you're on Facebook you're not on the Internet you're on the InterNOT." She added that it is an amazing service and she uses it regularly herself (although much less than she use Twitter) [39].

#### Five dangers of social networking sites

Jenny Cheever contended that the dangers of social networking sites often get overlooked amid all the good things they bring. She added that these types of sites include such as MySpace and Facebook, have become increasingly popular in recent years due to a high percentage of its users and popularity. The technology usage exceeded teens' activities, social networking has spread to the rest of the population as well that show almost all people of various socioeconomic and cultural background [40]. Although SNS showed positive results especially connecting users with families, colleagues, friends, it shows a number of negative impact or dangers that users can avoid them [41]. These include the following negative aspects. First, social networking can be addictive in which many people find themselves logging into their Facebook, Myspace and Twitter accounts many times a day especially when they utilize the technology over and over [42]. Second, Social networking could damage users' reputation. This shows that general public can view private information. It was advised to keep in mind that anything you post online is public information that can be seen by anyone. This includes private information like job affairs such as employees' boss, potential employers and even their relatives. Furthermore, posting very explicit photos of himself/herself, or typing comments about some of their negative behavior or conduct could end up ruining their career. People must be careful by thinking deeply before they post their pictures or comment especially when their boss, family, or other relative who might not like it [43]. Third, social networking can put their safety at risk. Stalkers and predators are most likely to be in SNS. User must be careful when dealing with individuals especially those whom they don't know. As it was suggested that the safest places such as public one. But if users deal with others in private box or room, some of them might cause a threat to users or to their reputation [44]. Fourth, social networking can damage people's social life. According to some sources that social networking might not replace real life setting. When interaction between a user and other(s) it looks nice and interesting. But when chats go beyond the normal interaction, it might end with other intimate relationship with others. This kind of relationship might cause a damage to individuals' social life with his/her family [45]. And fifth, Social networking can affect people's privacy. An individual should notice that all information about himself/herself such as name, phone number(s), address, his/ her contacts, likes and dislikes, bank, credit card number(s), and identity information can be subject to theft. Social network sites might seem beautiful and fun to be connected with one's colleagues, friends, family, and relatives but it also can be a "plaza" for damaging an individual's status. So users must be careful and think deeply before they reveal such private information [46].

Finally, and in addition to the above stated dangers, some SNS users can penetrate other's SNS user's time line such as in the Facebook, steal people's private information, (identity theft), and insert other undesired materials such as political articles, un appropriate pictures/ mages, and video clips that might harm individual's well being. Other sides of such harmful materials in which individuals receive threats of all kinds.

Last but not the least, it seems that some preventive software programs such as Proxy cannot detect such content from getting into an individual's e-mail or his/her SNS. Threats are another issue confronting individual's SNS usage. This danger has a negative impact on many users that some of them eventually quit using SNS.

#### **Related studies**

The literature provides a number of studies that are related to a digital education in general and social networks' services in specific. These technologies included Google, Facebook, Twitter, YouTube, and E-mail.

Davidson, Goldberg, and Jones, (2009) pointed out that the future of learning institutions in a digital age, it is also important to look at the ways that digitization works to cross the boundaries within and cross traditional learning institutions [47].

#### College students and social network services (SNS)

Concerningstudents'SNS usage and their grade achievement, studies indicate that students at the UNH Whittemore School of Business

surveyed 1,127 UNH students from a range of majors. The research shows that there is no correlation between the amount of time students spend using social media and their grades. In this instance, grades followed similar distributions for all colleges, with the majority of students having A's and B's [48].

Is there a difference between light, and heavy users of SNS or social media? The answer is yes when researchers defined light users of social media as usage fewer than 31 minutes per day. They also defined heavy usage as usage exceeding 61 minutes per day while they defined high grades as A's and B's, and lower grades as B's and lower. For the purpose of their study, social media were defined as Facebook, YouTube, blogs, Twitter, MySpace and LinkedIn [49].

Their research revealed that sixty-three percent of heavy users received high grades, compared to 65 percent of light users. Researchers found similar results with lower grades. Furthermore, while 37 percent of heavy users of social media received what were defined as lower grades, 35 percent of light users received fell into that same category [50]. Moreover, the results of their study show that ninety-six percent of UNH students use Facebook [51].

The study also shows that Facebook and YouTube are the most popular social media platforms with college students. An astounding 96 percent of students said they use Facebook on a typical day and 84 percent use YouTube. But, only 20 percent said they use blogs, 14 percent use Twitter, 12 percent use MySpace and 10 percent use LinkedIn [52].

In addition, they found that 43 percent of those surveyed said they have increased their usage of social media from a year ago, eight percent of them significantly. Result also show that thirty-nine percent of students said they have not changed their use of social media, while 18 percent said their use has decreased, including three percent who said it had significantly decreased [53].

As far as students' reasons for using social media, the research shows that the majority of students said they use social networks for social reasons (89 percent) and entertainment (79 percent). Furthermore, research shows that almost a quarter of students said they use social media for educational reasons (26 percent), and 16 percent for professional reasons [54].

Scholars noted that the importance of social media is consisted in nature of the technology itself. In this respect, it has been observed that the social media landscape changes rapidly and keeping up with the latest numbers is an essential part of continuing to make your marketing relevant and focused [55].

In addition to what the literature listing of the previously mentioned social network services (technologies), the author searched for other SNS technologies. These included E-mail, YouTube, Facebook, Google, and Twitter. These SNS were found by the present study as the most likely technologies used by Arab Gulf students surveyed.

#### The importance of statistics

The literature shows that statistics are used to make important decisions and social media statistics, facts and figures are often used to justify new media marketing strategies and tactics to the CEO.

Jamal Al-Suwaidi, the Director General of the Emirates Center for Strategic Studies and Research (ECSSR) in Abu Dhabi,

United Arab Emirates, published a book on social media titled "From Tribe To Facebook; The Transformational Role of Social Networks," found that the statistical indicators of main social networks included five social networking websites; Facebook, which was considered as the most popular since its debut in 2013, followed by Twitter, a microblogging site that appeared in 2006, Google+, 2011, LinkedIn 2002, and Pinterest 2010. These social website were ranked as the most used technological social services in the country. Thus, UAE was ranked at the top (41.2%) of Arab countries using Facebook according to 2013 statistics [56].

## E-Mail

Researchers defined E-mail (electronic mail) as the exchange of computer-stored messages by telecommunication. It has been noted that e-mail messages are usually encoded in ASCII text. However, users can also send non-text files, such as graphic images and sound files, as attachments sent in binary streams. The history of the technology shows that e-mail was one of the first uses of the Internet and is still the most popular use. In this context, results show that a large percentage of the total traffic over the Internet is e-mail. Furthermore, e-mail can also be a means of exchange between online service provider users and in networks other than the Internet, both public and private [57].

Another function of e-mail is that the technology can be distributed to lists of people as well as to individuals. Furthermore, e-mail reflector can provide individuals with managerial skills to in constructing a shared distribution list. Moreover, and in terms of subscription, some mailing lists allow users to subscribe by sending a request to the mailing list administrator. It is also worth noticing that a list server is a mailing list that is administered automatically. Furthermore, e-mail can be distributed to lists of people, organizations, groups, as well as to individuals. Moreover, some mailing lists allow users to subscribe by sending a request to the mailing list administrator [58].

As far as Internet is concerned, the study shows that e-mail is one of the protocols included with the Transport Control Protocol/Internet Protocol (TCP/IP) suite of protocols. Moreover, literature shows that a popular protocol for sending e-mail is Simple Mail Transfer Protocol and a popular protocol for receiving it is POP3. An e-mail utility with their Web browsers can be included in both Netscape and Microsoft [59].

The literature provides statistics on college students' use of e-mail by indicating that there is a large percentage of students using Facebook. In this context, statistics show that Facebook supports 882 colleges today – there are about 2,000 in the U.S. if you count community colleges. Their goal is to support all of these over time [60].

Additionally, the literature shows that penetration rate is staggering. Results indicated that about 85% of students in supported colleges have a profile up on Facebook. In this respect, researchers found that 3.85 million members use the technology on a daily basis (60% log in daily), about 85% log in at least once a week, and 93% log in at least once a month but other studies show that there are 1.4 billions of users worldwide, and that 98% of them use Facebook daily and at a global level [61].

#### YouTube

The literature indicates that YouTube was founded in 2005. However, the literature provides a clear cut evidence that millions of young

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people use the Internet every day and before the YouTube came to the existence [62]. The technology is viewed as one of the most popular video sites on the Web today. In this instance, figures show that millions of videos have been uploaded and shared here, ranging from movie trailers to amateur videos of cats. Users with Internet connection can share content on YouTube, whether they are being organizations with large budgets or an individual with a video camera [63].

The history of the technology shows that in February 2005, three PayPal employees launched the beta test version of a Web site called YouTube. In this regard, scientists designed the site to let people share videos with the rest of the world. Furthermore, data show that in November 2005, Sequoia Capital invested more than \$3 million in the site, and a month later YouTube emerged as a full-fledged Web destination. The technology was developed fast and gained a momentum in a way that it didn't take long for the site to become popular, and in November 2006, Internet search engine goliath Google purchased YouTube for \$1.65 billion [64].

The literature also shows that the technology continued to grow faster and faster with its company than ever, so as the scope of the videos on the site. In the early days of YouTube, one could find videos showing interesting locations, crazy stunts and hilarious pranks. Moreover, the technology allows users to watch political debates, musical performances, instructional videos and unfiltered war footage. Furthermore, and interesting enough to see that in 2007, participants can seize the opportunity when YouTube even provided them with a way to interact with potential United States presidential candidates. This has been seen when members of YouTube submitted video questions, and CNN featured some of them in Democratic and Republican candidate debates [65].

Criticism is inevitable factor affecting almost all technologies. In this respect, critiques addressed the technology with some criticism when YouTube has become the center of several controversies. In the absence of copyright law concerning uploaded materials mainly videos, one of the most publicized controversies involves copyright infringement. Video previews seem to be absent in the businesses of YouTube since the technology doesn't prescreen videos before they appear on the site, participants upload thousands of videos every day. In this instance, facts show that YouTube members sometimes upload television shows or clips from movies to share with other, friends, and people. However, if technology members don't own the copyright to that material, there could be trouble [66].

The relationship between YouTube and its members was characterized as a positive one but a question was raised in that regard; What about YouTube community members? Are they satisfied with their technology arena? Research shows that members have freedom to communicate and express their thoughts freely in YouTube community. For example, a search on the word "rant" brings up more than 35,000 video results [67].

Concerning students' YouTube daily use, statistics show that the technology hit about 400 million users by the end of 2012. It needs to be kept in mind that Google+ is more about being "core" to YouTube's social web strategy as it aims to embed social signals into its whole web and search strategy as it aims to continue to be relevant in an increasingly social and mobile web [68].

## Facebook

In addition to what has been said in this study about Facebook before, the technology can be defined as a popular free social networking website that allows registered users to create profiles, upload photos and video, send messages and keep in touch with friends, family and colleagues and at the same time the technology allows users to have a direct video shared be users [69].

Presence technology provides its users with a number of opportunities in a way that it allows members to see which contacts are online and chat [70].

Facebook includes a number of services. For example, the literature indicates that within each member's personal profile, there are several key networking components. The most popular and noticeably one is arguably the Wall, which is essentially a virtual bulletin board where messages left on a member's Wall can include text, video or photos. Another popular and important component of the technology is the virtual Photo Album. In this respect, photos can be uploaded from the desktop or directly from a cell phone camera. Although there is no limitation on quantity, members should know that Facebook staff will remove inappropriate or copyrighted images but after a while not immediately. Furthermore, research shows that an interactive album feature allows the member's contacts (who are called generically called "friends") to comment on each other's photos and identify (tag) people in the photos [71]. The literature attracts people's attention by saying that there is still another popular profile component of the technology is Status Updates, a microblogging feature that allows members to broadcast short Twitter-like announcements to their friends and that all members' interactions are published in a newsfeed, which is distributed in real-time to the member's friends, relative and the like [72].

This commercial represents, and is a manifestation of, the transformation of the field of sport and its activities into a form of popular culture closely tied in with, and in many ways indistinguishable from, the values, logics and discourses associated with the global commercial mass media. The field continues to produce a discursive commitment to, and perform in accordance with, the notion of the inalienable (play and the sporting ethos), but its status is that of a media fantasy and a commodity. Ironically, the contemporary mass media-dominated field of sport increasingly finds itself producing performances that sport is more than just an extension of the commercial mass media, and of its commitment to the idea and ethos that, at heart, sport is still people at play.

As far as individual's privacy is concerned, Facebook offers a range of privacy options to its members. In this regard, a member can make all his/her communications visible to everyone, he/she can block specific connections or he/she can keep all his/her communications private.

Studies revealed that the technology offers it members more services that include the following ones; Members can choose whether or not to be searchable, decide which parts of their profile are public, decide what not to put in their newsfeed and determine exactly who can see their posts. For those members who wish to use Facebook to communicate privately, there is a message feature, which closely resembles email [73].

The literature also shows that in May 2007, Facebook opened up its developers' platform to allow third-party developers to build applications and widgets that, once approved, could be distributed

through the Facebook community. Furthermore, and in May 2008, Facebook engineers developed another service called Facebook Connect, a cross-site initiative that allows users to publish interactions on third-party partner sites in their Facebook newsfeed [74].

As the Facebook continues to innovate, evolve, and develop, statistics show that the last 12 months have seen the new timeline introduced to personal profiles and brand pages as well as the purchase of Instagram, the mobile photo app platform, which has never made any money and has only 13 employees for a generous price of \$1 billion [75].

It was noted that this development underlines two key elements that emerging as pivotal to the continuing evolution of the social web [76].

Concerning more Facebook facts and figures, statistics show that monthly active users now total nearly 850 million, 250 million photos are uploaded every day, 20% of all page views on the web are on Facebook, 425 million mobile users, 100 billion connections, Zygna's games revenue is currently 12% of Facebook's total income, 2.7 billion "likes" per day, and 57% of users are female [77].

Finally, Daniel Miller provides a concrete evidence on how facebook helps people to make relationship by saying that most individuals feel awkward in the company of other individuals or group of people they barely know, self-conscious about the possible effect of their words, behavior, and actions [78].

#### Google

Research shows that Google is one of the five most popular websites in the world. Furthermore, Google can be defined as a web search engine that lets you find other sites on the web based on keyword searches. Moreover, and in terms of search via the technology, Google provides specialized searches through blogs, catalogs, videos, news items and more [79].

A number of services Google can provide its members. These include Internet services that let an individual create blogs, send email, and publish web pages while at the same time the technology is regarded as a hub for social networking tools, organization tools, and chat tools, services for mobile devices, and even Google branded merchandise [80].

The literature provides a clear-cut evidence of how Google began when Larry Page and Sergey Brin collaborated at Stanford University on a search engine called "Backrub." In this respect, the name came from the search engine's use of back-links to determine page relevance. Thus, this is a patented algorithm known as PageRank [81].

Literature shows that the literature reveals that although, Brin and Page left Stanford and founded Google, Inc., in September of 1998, Google was an instant hit, and by the year 2000, Google was the world's largest search engine. And by 2001 it did something that eluded most of the dot.com business startups of the time. Google became profitable [82].

The web search is regarded as the most important feature of the technology's services in which its engine is well known for providing relevant search results with a clean interface. Google is classified as the largest and most popular web search engine in the world because of the services it provides its members. Studies show that these services include; ways to Search with Google, showing members how to Search Effectively with Google, Google Power Searches, and its

and its Advanced Search. Furthermore, Google allows members to find books through its Book Search, searching for news, videos, and searching for products via its Froogle. Moreover, communication tools include Blogger, Calendar, Gmail, Groups, Hello, and Talk [83].

Statistics show that since the technology was launched on June 28, 2011, Google+ gained much popularity when it reached 10 million users by July 14, 2011, 67% of Google+ users are male, Google "+1" button is served more than 5 billion times daily, and It is gaining 625,000 users per day [84].

Additionally, as the company's businesses continued to grow, it was noted that Google makes it mandatory to join Google+ when you register for a Gmail account that really amounts to it being a forced membership. However, "this non organic strategy means that its engagement levels are extremely low at 3 minutes per month compared to Facebook at 405 minutes," [85].

Finally, and among other services provided by Google, the technology news is more than just a search engine for news-based content but also a portal to news content from all over the web [86].

## Twitter

The available literature on the technology defined Twitter as a free social networking microblogging service that allows registered members to broadcast short posts called tweets. Furthermore, Twitter provides its members with more opportunities because they can broadcast tweets and follow other users' tweets by using multiple platforms and devices. Moreover, statistics show that Tweets and replies to tweets can be sent by cell phone text message, desktop client or by posting at the Twitter.com website [87].

It should be noted that the default settings for Twitter are public. Literature shows that the technology is free of constraints that former SNS have. In this context, and unlike Facebook or LinkedIn services, where members need approval for social connections, anyone can follow anyone on publicTwitter without such approval [88].

SEO quoted Mathew Kruger-Ross, Richard D. Waters, and Tricia M. Farewell as they conducted a study on Twitter use in the classroom. Among other things, they found that teachers who use Twitter encourage heir students to use the technology. They also found that teachers especially at elementary schools always tend to protect young students from open conversations that might constitute a danger when it comes with an association between minors and strangers [89].

Concerning college students' use of Twitter studies show that twitter is still the enigma of the social networking fraternity with its usefulness questioned by a lot of people. Its simplicity is still its main attraction along with its immediacy in breaking news about the latest "events" [90].

Research shows that the main reason people Tweet is due to interesting content when they share information between them. Julian Dibbell (2010) seems to support such notion when she said that the most fascinating thing about Twitter is not what it's doing to us but what we're doing to the technology service [91]. Furthermore, statistics show that as the technology approaches its sixth birthday its revenue is slowly climbing with projections that in 2012 its income will hit \$260 million [92].

Statistics also show that there are over 465 million accounts, 175 million tweets a day, and 1 million accounts are added to Twitter every

#### day [93].

Research also shows the notion that Twitter has fared better at holding on to younger users, studies (Quentin Fottrell, show that Facebook (FB) may be the biggest social network on the planet with 1 billion-plus users, but it's not beating Twitter in every way. Moreover, data show that Twitter increasingly skews toward younger users, new research finds. In this context, researchers observed that teens are leaving bigger social networks for the privacy of messaging apps, but experts say Twitter is managing to hold on to more of this sought-after younger demographic than its bigger rival. However, and according ot a number of studies that show the percentage of teens active on Facebook dropped by 9% during 2013 and by 7% on YouTube, according to a global survey of over 40,000 Internet users by research firm GlobalWebIndex-but only fell by 3% on Twitter. Another favorable characteristic of the technology is that Twitter is also the preferred social network by 27% of adolescents versus 23% for Facebook, according to the "Spring 2014" survey of 7,500 U.S. teens by Piper Jaffray; in Spring 2013, Facebook beat Twitter by 33% to 30%. (Facebook declined to comment) [94].

"Twitter still has the cool factor," says Daniel Miller, a professor of anthropology at University College London who is currently studying students' use of social networks. He raised a very profound question in regard to the relationship between teenagers and Twitter; Why do teenagers use Twitter? Studies found that Teens use Facebook to send party invites and communicate with their families, but they mostly use Twitter to communicate with each other, he says. "This has no relation to what you and I know about Twitter," Miller adds. His study revealed that they use it for instant messaging, posting images and celebrity news, he says.

Jason Mander, head of trends at GlobalWebIndex, agrees. He confirmed that Twitter hasn't been around for as long as Facebook and also has a younger age profile in terms of its active users, making it feel a little more relevant for some younger users [95].

Statistics show that top 3 countries on Twitter are USA at 107 million, Brazil 33 million and Japan at nearly 30 million [96]. Moreover, it has been noted that the busiest event in Twitter's history is now "Castle in the Sky" TV screening 25,088 tweets per second (previous record was the last minutes of the 2012 Superbowl with 10,245 tweets per second [97].

Patti Shank and Amy Sitze contended that technology in general and social network services in particular can provide users with access to people, opportunities, mentoring, help, making friends that may lead to marriage and families, social relationships, etc.[98] However, researchers were faced with a research problem in which a large number of individuals especially children, and college students do not reveal their actual socioeconomic and cultural background to other online users. Furthermore, they might lie to protect themselves from other intruders by given false identity or information [99].

One question before the researcher turns to the research hypotheses is who can have a real physical access to these communication and educational technologies. Lax, in his book titled "Access Denied in the Information Age provided a number of philosophical remarks when he noted that if new technologies do not have value or knowledge, then why people bother with it. More importantly, he raised other questions that need to be answered as they are related to the nature of knowledge and the individual factors that make decision on the subject matter. In other words, new technologies should promote an increase in real knowledge [100]. Finally, safety issues concerning children and youth have surfaced since materials broadcast and published within these technologies' services without censorship. Proxy software program cannot by any means prevent undesired materials from getting in the hand of such individuals, an action must be taken by parents. To help parents to accomplish that task, Julia Davies and Guy Merchant identified a number of guidelines for both teachers and parents to keep children and youth safe. These include becta, 2001; Kent Local Authority, 2006. But with little success, a number of social websites will be removed not locally but internationally [101].

After this thorough review of related studies, the author turns attention now to research hypotheses to be examined in the following section. Unquestionably, social network services are widely used in almost every academic institution and by members of the social system in the United States of America. The general assumption is that almost all students of the Arab Gulf states use SNS at Ohio University. But this assumption needs to be tested scientifically.

The author proposed a number of general hypotheses and subhypotheses, derived from the literature review and theoretical framework, in the following section.

#### Hypotheses

**GH1:** The General Hypothesis 1 states, "*There is a statistically significant difference in the relationship between the sample's demographic and cultural factors (i.e., age, income, educational level, and English language), and their daily use of social network services".* 

*Sub-Hypothesis 1:* The first hypothesis states, "*There is a statistically significant difference in the relationship between the sample's age and their daily use of SNS*". The older the sample is, the more likely they are to use SNS. In other words, adults are more likely to use SNS than the young users.

*Sub-Hypothesis 2*: The second hypothesis states, "*There is a statistically significant difference in the relationship between the sample's monthly income and their daily use of the SNS*". The higher the sample's monthly income is, the more likely they are to use SNS.

*Sub-Hypothesis 3:* The third hypothesis states, "*There is a statistically significant difference in the relationship between the sample's educational level and their daily use of SNS*". The higher the sample's educational level is, the more likely they are to use SNS.

*Sub-Hypothesis 4*: The fourth hypothesis states, "*There is a statistically significant difference in the relationship between the sample's English language acquisition and their daily use of SNS*". The higher the sample's English language acquisition level is, the more likely they are to use SNS.

**GH2:** The General Hypothesis 2 states, "There is a statistically significant difference in the relationship between the sample's demographic and cultural factors (i.e., age, income, educational level, and English language acquisition) and their beliefs in the social network services as useful sources of information".

Sub-Hypothesis 1: The first hypothesis states, "There is a statistically significant difference in the relationship between the sample's age and their beliefs in SNS as useful sources of information". Older students are more likely than younger counterpart to believe in SNS as useful sources of information.

Sub-Hypothesis 2: The second hypothesis states, "There is a statistically

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*difference in the relationship between the sample's monthly income and their beliefs in SNS as useful sources of information".* The higher the sample's monthly income is, the more likely they are to believe in SNS as useful sources of information.

*Sub-Hypothesis 3:* The third hypothesis states, "*There is a statistically significant difference in the relationship between the sample's educational level and their beliefs in SNS as useful sources of information*". The higher the sample's educational level is, the more likely they are to believe in SNS as useful sources of information.

Sub-Hypothesis 4: The fourth hypothesis states, "There is a statistically significant difference in the relationship between the sample's English language acquisition and their beliefs in SNS as useful sources of information". The higher the sample's English language acquisition level is, the more likely they are to believe in SNS as useful sources of information.

## Methodology and Method

This particular study uses quantitative research in which numbers, statistics and categories are frequently used especially in data analysis. Further, the study uses survey-questionnaire as a tool of data collection. SPSS (Statistical Package for Social Sciences) was used for data analysis. Descriptive analysis (i.e., frequency), and Pearson's correlation coefficients procedures were used to determine the contribution of independent variables on the overall results. Data were then analyzed and tabulated in a scientific fashion.

#### **Pilot study**

The author has distributed 35, (10%) copies of the surveyquestionnaires to 35 potential users of the social network services prior to the actual data collection for this particular study. Thus, the main reason for conducting such a pilot study was to test the instrument of investigation (i.e., survey-questionnaire). Overall, the pilot study showed that the sample understood the instrument's questions.

#### Data collection

To operationalize the hypotheses, a questionnaire was distributed among 150 potential users of the technologies (i.e., SNS). Approximately, the researcher and co-researchers have distributed150 copies of survey questionnaires to the sample consisted of Arab Gulf students attending Ohio University, academic year 2013-2014. The main reason for selection such sample is that these students are the ones who can influence the future communication policy of their countries. Furthermore, most of the questionnaire items were designed according to Likert scale (i.e., I, 2, 3, 4, & 5).

The survey-questionnaire consisted of 18 questions and 113 variables. It is divided into 3 sets of questions. The first set, (1-8), includes questions related to students' demographic information such as age, gender, marital status, monthly income, educational level, place of residence, language, and countries of origins. The second set, (9-14), includes questions related to their daily use of SNS, while the third set (15-17), related to their opinion and attitudes toward the technology. All of these questions followed an open-closed format with the exception of question 18 which is an open one allowing students to express their thoughts freely.

Beginning 15th October 2013, and ending 20th March 2014, 150 copies of the survey-questionnaire were distributed to potential users of social network services due to a relatively small number of the Arab

Gulf students attending OU in comparison to OU student population. The questionnaire included items to test the sample's demographic factors and their use of and attitudes toward these technologies. The achieved response rate was 83%. The rate was adequate to continue the research.

## **Operationalization of variables**

The social networking theory views social relationships in terms of nodes and ties. Nodes are the individual actors within the networks, and ties are the relationships between the actors. There can be many kinds of ties between the nodes. Research shows that in its most simple form, a social network is no more or less than a map of all of the relevant ties between the nodes being studied. Because this has been successfully tested in the U.S. and among American students, the previously stated hypotheses will be tested also in the USA-Ohio University setting by analyzing the previously specified dependent and independent variables. Such postulate (social ecological model, social ecological theory, and social network theory) has already been successfully tested in another western setting. It is important to test these previously stated hypotheses among Arab Gulf students.

#### **Dependent variables**

All hypotheses that will be tested in this study concern potential users' use of and attitudes toward the technology. Dependent variables tested in this particular study included the social network services (SNS) such as Google, YouTube, Facebook, Twitter, and E-Mail. The variable SNS and the sample's use were measured as follows;1. Less than 1 hour, 2-1-less than 3 hours, 3-3- Less than 5 hours, 4-5-less than 7 hours, and 5-More than 7 hours.

Finally, the sample's beliefs in SNS as useful sources of information was coded as follows; 5-strongly agree, 4-agree, 3-no opinion, 2-disagree, and 1-disagree strongly.

## Independent variables

The independent variables measured in this study included such students' demographic and cultural characteristics such as age, income, educational level, and language. Furthermore, the first independent variable, age was measured as follows; 1-younger than 18 years old, 2-18 to younger than 22, 3-22 to younger than 26, 4-26 to younger than 30, 5-30 to younger than 34, 6-34 to younger than 38, 7-38 years old and older. The second independent variable, monthly income, was measures as follows; 1-less than \$1,400, 2-\$1,400 to less than \$2,700, 3-\$2,700 to less than \$4,100, 4-\$4,100 to less than \$5,500. The third independent variable, educational level was measured as follows; 1-english Language Institute, 2-Freshman, 3-Sophomore, 4-Junior, 5-Senior, 6-MA/MS, and 7-Ph. D. The fourth and the final demographic variables was English Language acquisition was measured as follows; 1-Never, 2-Rarely, 3-Sometimes, 4-Usually, and 5-Always.

#### **Regression analysis**

Regression analysis is extremely important statistical procedure to determine the strength of independent variables included in this study, (age, monthly income, educational level, and language). Furthermore, the procedure is used to model the relationship between a response variable and one or more predictor variables. Literature shows that STATGRAPHICS Centurion provides a large number of procedures for fitting different types of regression models: Simple Regression - fits linear and nonlinear models with one predictor.

When the researcher performed regression analysis, he found through ANOVA that degree of freedom (df) was 4, and level of significance was p=.000b. Furthermore, age (p=.000) and monthly income p=.008) were correlated with students' use of Google. The test, however, found no correlations between students' educational level (p=.895) or language (p=.378). This allows the researcher to test the study's hypotheses. age and their beliefs in the SNS as useful sources of information. Data in the same table, show that the results of the interaction between the sample's age and their beliefs in the SNS-Google was (p=.001) at P<.01, Facebook was (p=.464) at P<.05, YouTube was (p=.764) at P<.05, E-mail was (p=.075), at P<.05, and Twitter was (p=.251) at P<.05.

## Test of hypotheses

Statistical analyses were employed to test the proposed hypotheses. SPSS was employed mainly for data analysis. As indicated earlier, descriptive analysis (i.e., frequency), and Pearson's correlations were used to determine whether hypotheses were supported. For this purpose, the mean was used to obtain the average hours Arab Gulf students spent using the SNS every day. The Pearson's correlations coefficients was used to test the correlations (i.e., relationships) between independent and dependent variables, with the p level at standard statistical level (P < .01/P < .5). The hypotheses proposed in this study are derived from the literature review and theoretical framework.

## Hypotheses

**GH1:** The General Hypothesis 1 states, "*There is a statistically significant difference in the relationship between the sample's demographic factors (i.e., age, income, educational level, and English language), and their daily use of social network services*".

*Sub-Hypothesis 1:* The first hypothesis states, "*There is a statistically significant difference in the relationship between the sample's age and their daily use of SNS*". The older the sample is, the more likely they are to use SNS. In other words, adults are more likely to use SNS than the young users.

*Sub-Hypothesis 2*: The second hypothesis states, "*There is a statistically significant difference in the relationship between the sample's monthly income and their daily use of the SNS*". The higher the sample's monthly income is, the more likely they are to use SNS.

*Sub-Hypothesis 3*: The third hypothesis states, "*There is a statistically significant difference in the relationship between the sample's educational level and their daily use of SNS*". The higher the sample's educational level is, the more likely they are to use SNS.

Sub-Hypothesis 4: The fourth hypothesis states, "There is a statistically significant difference in the relationship between the sample's English language acquisition level and their daily use of SNS". The higher the sample's English language acquisition level is, the more likely they are to use SNS.

**GH2**: The General Hypothesis 2 states, "There is a statistically significant difference in the relationship between the sample's demographic and cultural factors (i.e., age, income, educational level, and English language), and their beliefs in the social network services as useful sources of information".

*Sub-Hypothesis 1:* The first hypothesis states, "*There is a statistically significant difference in the relationship between the sample's age and their beliefs in SNS as useful sources of information*". Older students are more likely than younger counterpart to believe in SNS as useful sources of information.

Sub-Hypothesis 2: The second hypothesis states, "There is a statistically significant difference in the relationship between the sample's monthly income and their beliefs in SNS as useful sources of information". The higher the sample's monthly income is, the more likely they are to believe in SNS as useful sources of information.

*Sub-Hypothesis 3:* The third hypothesis states, "*There is a statistically significant difference in the relationship between the sample's educational level and their beliefs in SNS as useful sources of information*". The higher the sample's educational level is, the more likely they are to believe in SNS as useful sources of information.

Sub-Hypothesis 4: The fourth hypothesis states, "There is a statistically significant difference in the relationship between the sample's English language acquisition level and their beliefs in SNS as useful sources of information." The higher the sample's English language acquisition level is, the more likely they are to believe in SNS as useful sources of information.

## **Data Analysis**

As previously indicated that sample's age, monthly income, educational level, and language acquisition are the independent variables while social network services (i.e., e-mail, YouTube, Facebook, Google, & Twitter) are dependent variables.

As previously indicated that statistical program, SPSS (Statistical Package for Social Sciences) was also used to determine the contribution of each independent and dependent factor. Frequencies were then obtained using descriptive analysis. Data was then analyzed and tabulated using a number of statistical procedures such as descriptive analysis (i. e., frequencies), and Pearson's correlations coefficients.

*Sub-Hypothesis 2:* The second hypothesis states, "*There is a statistically significant difference in the relationship between the sample's monthly income and their daily use of the SNS*". The higher the sample's monthly income is, the more likely they are to use SNS.

*Sub-Hypothesis 3:* The third hypothesis states, "*There is a statistically significant difference in the relationship between the sample's educational level and their daily use of SNS*". The higher the sample's educational level is, the more likely they are to use SNS.

## Findings

Data show that the sample age category (18-younger than 22 years old) has the highest rate (64.%) while (30-34 and older) has the lowest percentage (4%). Data in table 1 also show that the sample's income category (less than \$1,400-less than \$2,700) has the highest monthly income rate (88%) while (Less than \$1,400 income category) has the lowest rate (4%). Furthermore, data in the frequency tables show that the highest rate (48%) of educational level category belongs to sophomore category while the lowest rate (4%) belongs to both freshman and junior categories.

Finally, and in regard to language, it was found that Arabic-always has the highest rate (64%) among other languages such as English-usually, (46%), French-never, (92%), Spanish-never, (100%), and Chinese-never, (100%). These results show that both Spanish-never and Chinese-never have the least percentage (0%) of students' language acquisition.

As far as the duration students spend using SNS, frequency tables indicate the distribution rate of the sample's daily hours use of

technologies. Data show that e-mail has the highest rate (36%) of students spending 7 and more hours daily, YouTube has the second highest rate (40%) of students' daily use (3-less than 5 hours daily), Google has the third highest rate (37%) of students spending 1 to 3 hours using the technology daily, Facebook and Twitter have the fourth highest rate (30% for each) students spending 1 to less than 3 hours daily, while all of yahoo (41%), Skype (65%), LinkedIn (68%), Chatter (100%), Yammar (100%), SweetsOnly (83%), and Instagram (39%) have had the least duration of students' SNS daily use. Consequently, the researcher selected the first five highest SNS used by students. These SNS included E-Mail, YouTube, Google, Facebook, and Twitter. The correlation table 1 also shows the relationships between the sample's monthly income and their daily use of SNS. Data in the same table, show that the results of the interaction between the sample's monthly income and their daily use of the technology's services-Google was (p=.237) at P<.05, Facebook was (p=.558) at P<.05, YouTube was (p=.321) at P<.05, E-mail was (p=.127), at P<.05), and Twitter was (p=.001) at P<.01, (Table 1).

With such results, the researcher failed to support the second hypothesis that states that there is a statistically significant difference in the relationship between the sample's monthly income and their daily use of SNS, (Table 1).

		Students' Daily Hours of SNS Use-Google	Students' Daily Hours of SNS Use-Facebook	Students' Daily Hours of SNS Use- YouTube	Students' Daily Hours of SNS Use- E-Mail	Students' Daily Hours of SNS Use- Twitter
Age	Pearson Correlation Sig. (2-tailed) N	.515** .000 124	032- .721 124	.292** .002 114	.245** .008 114	.299** .001 119
Monthly Income	Pearson Correlation Sig. (2-tailed) N	.107 .237 124	053- .558 124	.094 .321 114	144- .127 114	190-* .038 119
Educational Level	Pearson Correlation Sig. (2-tailed) N	.134 .139 124	.170 .059 124	.184* .050 114	.297** .001 114	.390** .000 119
Language & Info via SNS-English	Pearson Correlation Sig. (2-tailed) N	.008 .935 119	.309** .001 119	.316** .001 109	.340** .000 109	047- .616 114

Table 1: Pearson's Correlations between the sample's demographic and cultural variables and their use of (SNS). \*\*Correlation is significant at P<.05

Next, the researcher tests the previously mentioned hypotheses in the following section. It should be noted that the researcher seeks to support the applicability of all three social ecological model, social ecological theory, and social networking theory through the examination of the study's hypotheses. It is also worth noting that if half (50%) or more hypotheses were supported by data, then the theoretical framework will be applicable at Ohio University setting.

H1. The first hypothesis states, "*There is a statistically significant difference in the relationship between the sample's age and their daily use of SNS*". The older the sample is, the more likely they are to use SNS. In other words, adults are more likely to use SNS than the young users.

The correlation table (1) shows the relationships between the sample's age and their daily use of SNS. Data in the same table, show that the results of the interaction between the sample's age and their daily use of the technology's services-Google was (p=.000) at P<.01, Facebook was (p=.721) at P<.05, YouTube was (p=.002) at P<.01, E-mail was (p=.008), at P<.01), and Twitter was (p=.001) at P<.01.

The majority of the tests showed correlations between the sample's demographic characteristics and their use of SNS. With these results in mind, the researcher succeeded in supporting the first hypothesis that states that there is a statistically significant difference in the relationship between the sample's age and their daily use of SNS, (Table 1).

H2. The second hypothesis states, "There is a statistically significant difference in the relationship between the sample's monthly income and their daily use of the SNS". The higher the sample's monthly income is, the more likely they are to use SNS.

H3. The third hypothesis states, "There is a statistically significant difference in the relationship between the sample's educational level, and their daily use of SNS".

The correlation table 1 also shows the relationships between the sample's educational level and their daily use of SNS. Data in the same table, show that the results of the interaction between the sample's educational level and their daily use of the technology's services-Google was (p=.139) at P<.05, Facebook was (p=.059) at P<.05, YouTube was (p=.050) at P<.05, E-mail was (p=.001), at P<.01, and Twitter was (p=.000) at P<.01.

With such results, the researcher succeeded in supporting the third hypothesis even partially that states that there is a statistically significant difference in the relationship between the sample's educational level and their daily use of SNS, Table 1.

H4. The fourth hypothesis states, "*There is a statistically significant difference in the relationship between the sample's English language acquisition and their daily use of SNS*". The higher the sample's educational level is, the more likely they are to use SNS.

The correlation table 1 also shows the relationships between the sample's English language acquisition and their daily use of SNS. Data in the same table, show that the results of the interaction between the sample's English language acquisition and their daily use of the technology's services-Google was (p=.935) at P<.05, Facebook was (p=.001) at P<.01, YouTube was (p=.001) at P<.01, E-mail was (p=.000), at P<.01, and Twitter was (p=.616) at P<.05.

With such results, the researcher succeeded in supporting the fourth hypothesis that states that there is a statistically significant difference

in the relationship between the sample's English language acquisition and their daily use of SNS, Table 1.

The students were also asked a number of questions related to their opinion/attitudes toward social network services. Thus, the following hypotheses are related to their attitudes toward the SNS technology.

H5. The fifth hypothesis states, "There is a statistically significant difference in the relationship between the sample's age and their beliefs in SNS as useful sources of information". Older students are more likely than younger counterpart to believe in SNS as useful sources of information.

The correlation table 2 shows the relationships between the sample's age and their beliefs in the SNS as useful sources of information. Data in the same table, show that the results of the interaction between the sample's age and their beliefs in the SNS-Google was (p=.001) at P<.01, Facebook was (p=.464) at P<.05, YouTube was (p=.764) at P<.05, YouTube was (p=.764) at P<.05, E-mail was (p=.075), at P<.05, and Twitter was (p=.251) at P<.05.

With such results, the researcher failed to support the fifth hypothesis that states that there is a statistically significant difference in the relationship between the sample age and there beliefs in the SNS as useful sources of information, Table 2. in the relationship between the sample monthly income and their beliefs in the SNS as useful sources of information, Table 2.

H7. The seventh hypothesis states, "There is a statistically significant difference in the relationship between the sample's educational level and their beliefs in SNS as useful sources of information." The higher the sample's educational level is, the more likely they are to believe in SNS as useful sources of information.

The correlation table 2 shows the relationships between the sample's educational level and their beliefs in the SNS as useful sources of information. Data in the same table, show that the results of the interaction between the sample's educational level and their beliefs in the SNS as useful sources of information-Google was (p=.548) at P<.05, Facebook was (p=.000) at P<.05, YouTube was (p=.857) at P<.05, E-mail was (p=.279), at P<.05, and Twitter was (p=.058) at P<.05.

With such results, the researcher failed to support the seventh hypothesis that states that there is a statistically significant difference in the relationship between the sample educational level and their beliefs in the SNS as useful sources of information, Table 2.

H8. The eighth and the last hypothesis states, "*There is a statistically significant difference in the relationship between the sample's English* 

Age Pears Sig. (2 N	son Correlation (2-tailed)	- 528-**				
	(2 tanted)	.000 124	068- .464 119	.031 .764 98	167 075 114	.108 .251 114
Monthly Income Pears Sig. (2 N	son Correlation (2-tailed)	322-** .000 124	190-* .039 119	306-** .002 98	503-** .000 114	016- .865 114
Educational Pears Level Sig. (: N	son Correlation (2-tailed)	.055 .548 124	483-** .000 119	018- .857 98	102 .279 114	.178 .058 114
Language & Info via SNS-English Sig. (2 N	son Correlation (2-tailed)	062- .501 124	092- .329 119	191 067 98	212-* .027 114	055- .567 114

H6. The sixth hypothesis states, "There is a statistically significant difference in the relationship between the sample's monthly income and their beliefs in SNS as useful sources of information." The higher the sample's monthly income is, the more likely they are to believe in SNS as useful sources of information.

The correlation table 2 shows the relationships between the sample's monthly income and their beliefs in the SNS as useful sources of information. Data in the same table, show that the results of the interaction between the sample's monthly income and their beliefs in the SNS as useful sources of information-Google was (p=.000) at P<.05, Facebook was (p=.039) at P<.05, YouTube was (p=.002) at P<.01, E-mail was (p=.000), at P<.01, and Twitter was (p=.865) at P<.05.

With such results, the researcher succeeded in supporting the sixth hypothesis that states that there is a statistically significant difference

acquisition and their beliefs in SNS as useful sources of information." The higher the sample's English language acquisition level is, the more likely they are to believe in SNS as useful sources of information.

The correlation table 2 shows the relationships between the sample's level of English language acquisition and their beliefs in the SNS as useful sources of information. Data, in the same table, show that the results of the interaction between the sample's level of English language acquisition and their beliefs in the SNS as useful sources of information-Google was (p=.501) at P<.05, Facebook was (p=.329) at P<.05, YouTube was (p=.067) at P<.05, E-mail was (p=.027), at P<.05, and Twitter was (p=.567) at P<.05.

With such results, the researcher failed to support the eighth hypothesis that states that there is a statistically significant difference in the relationship between the sample's English language acquisition and their beliefs in the SNS as useful sources of information, Table 2.

Finally, since half (i.e. 4 out of 8) of the study's hypotheses were found to be supported by the study's results, the researcher concluded that social ecological model, social ecological theory, and, social network theory can be applicable in Ohio University setting.

## Discussion

The main aim of this study was to investigate the demographic factors influencing Arab Gulf students' use of and attitudes toward social network services at Ohio University. This study is a pioneering one because till now the researcher did not find a single study investigated Arab Gulf students' use of and attitudes toward social network services at Ohio University where the researcher conducted this study or even in the United States. And because of the small number of respondents (N=124) used for this study, no statistical significance was found to support half of the proposed hypotheses in this particular study.

The searcher found that half (4 out of 8) of the proposed hypotheses were supported by the study results even though the sample's size was small (124) mainly due to availability of Arab Gulf students attending OU during academic year 2013-204.

Despite this small number of students (i.e., sample's size-124), the study found a number of correlations between the sample's demographic and cultural characteristics and their daily use of and attitudes toward the technology (SNS).

In terms of the sample's age, the study found a correlation between this factor and their daily use of Google, YouTube, E-mail, and Twitter but did not find a correlation between the sample's age and their daily use of Facebook. This contradicts the findings of a number of previously conducted studies that found that Facebook was ranked as the first one used by people in general and college students in particular. Moreover, the sample's monthly income was not found to be a strong factor influencing students' daily use of SNS. In this respect, the only technology that students' monthly income was correlated with was Twitter. This might be the result of students' frequent tweet their classmates and/or friends. But the variable (monthly income was not found to be correlated with Google, Facebook, YouTube, or E-mail.

In addition to that, educational level was found to be correlated with YouTube, E-mail, and Twitter but wasn't correlated either with Google or Facebook. This also might be a result of students of higher socioeconomic status are busy with other businesses rather than using Google or Facebook. Furthermore, the sample's English language acquisition level was correlated with Facebook, YouTube, and E-mail but it wasn't correlated with either Google or Twitter. This shows that students' English language acquisition is extremely important factor influencing their use of SNS.

In terms of the sample's attitudes toward SNS, the study found that students' age was correlated with Google only but it wasn't correlated with Facebook, Twitter, E-mail or YouTube. This explains fully that students' of various socioeconomic statuses have different opinions and attitudes toward SNS. Moreover, the sample's monthly income was correlated with Google, Facebook, Twitter, and E-mail but it wasn't correlated with YouTube. This might explain their intent to use the three former SNS for study or businesses purposes or they found that YouTube is no more or less a waste of time. Furthermore, the sample's educational level was found to be correlated with Facebook only but it wasn't correlated with Google, Twitter, E-mail, or YouTube. Students' of higher educational level might find that Facebook is the best communication technology to communicate with classmates, friends, family, or professors since many users use Facebook in their discussions of thoughts.

Finally, the sample's English language acquisition level was correlated with E-mail only. This clearly explains that their communication with their professors was done using English as a tool of understanding their chores toward their studies. However, English was not correlated with Google, Facebook, Twitter, or YouTube.

With these previously stated results, the author concludes that social ecological model, social ecological theory, and social networking theory can be applied in Ohio University setting.

#### **Conclusion and Recommendation**

This study has investigated the demographic and cultural factors influencing Arab Gulf students' use of and attitudes toward social network services at Ohio University as related to individuals' age, income, educational level, and English language. The study found statistically significantly correlations between half (50%) of the study's hypotheses in relation to their use of and attitudes toward SNS. Such results indicate that the SNS are very important tools precisely for the dissemination of information. Therefore, the author concludes that the social ecological model, social ecological theory, and social network theory can be applied in Ohio University setting.

The students were also asked a number of questions related to their opinion/attitudes toward social network services. Thus, the following hypotheses are related to their attitudes toward the SNS technology.

Finally, the researcher proposes a number of recommendations based on the findings of this particular study.

First, the instrument (survey) employed was designed to measure the independent and dependent variables determining Arab Gulf students' use of and attitudes toward SNS. The instrument seemed to be, to certain extent, reliable and complete.

A number of problems, however, were discovered in the application of the instrument and in the selection of the sample. The survey was too long, and a number of questions went unanswered. It was difficult to obtain a proportional number of male and female respondents in a sex-segregated community of these students.

In admitting these problems with the instrument and the sample, the researcher proposes some recommendations for future studies along these lines.

- 1. Future researchers are encouraged to design short and complete surveys.
- 2. Every effort should be made to select a true random sample. Although this may be difficulty in segregated societal environment of Arab Gulf students population in Athens, OH, researchers should plan in advance for this eventuality. And,
- 3. An area that might prove especially fertile would be that Arab Gulf students' SNS interest resulting from the most recent political and economic crises in the region such as Tunis, Libya, Egypt, Syria, Yemen, and Bahrain political unrest that caused the change of few political regimes.

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