

4-22-2014

# The Use of the Smartphones as a Resource for News Among Saudi Arabian Students in the United States

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THE USE OF THE SMARTPHONES AS A RESOURCE FOR NEWS AMONG SAUDI  
ARABIAN STUDENTS IN THE UNITED STATES

A Dissertation

Submitted to the School of Graduate Studies and Research

in Partial Fulfillment of the

Requirements for the Degree

Doctor of Philosophy

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May 2014

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Title: The Use of the Smartphones as a Resource for News Among Saudi Arabian Students in the United States

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This study was influenced by the researcher's personal interest in the topic as well as a pilot study he conducted; it produced results that inspired him to do further research. The Saudi Arabian Cultural Mission assisted in distributing the Qualtrics survey through their Facebook page and Twitter account. Thus, the researcher utilized a non-probability convenience and volunteer sample of 789 Saudi Arabian students studying in the United States.

This study was guided by the Uses and Gratification Theory to examine the use of smartphones as a news resource and the potential gratifications students experienced with this type of use. The findings showed reliance upon using smartphones for accessing news with several experienced gratifications. An emergent habit of checking news frequently among respondents was revealed by the data analysis. Additionally, the findings indicated that respondents have feelings of being overwhelmed by the large amount of news as well as feeling isolated without their smartphones. The findings point to a noticeable amount of sharing news via social networking sites while using smartphones. Overall, an argument of a cultural impact of using smartphones exists, contrary to respondents' perceptions.

## DEDICATION AND ACKNOWLEDGEMENTS

First of all, I dedicate this dissertation to my uncle Awad Almishehin who passed away few months ago. He raised me and encouraged me to be always successful; I wish he is alive today to witness my success. Secondly, I dedicate this accomplishment to the greatest woman on the Earth, my beloved mother. Also, to my brother Mohammed who provides me with his full support, and to all my brothers and sisters.

Most importantly, I would like to acknowledge Dr. Mark Piwinsky who served as my dissertations chair for his wonderful guidance and marvelous support. I thank my committee members, Dr. Jay Start and Dr. Zachary Stigler, for their instructions and great suggestions. Very special thanks go to Dr. Sarah Tourtellotte as well as my professors from whom I have learned so very much and my peer Ms. Lacey Fulton.

Precisely, this dissertation is dedicated to my great and loving wife, Seada Alshammari. She was beside me during my happy, sad, and grief moments as I pursued my degree. I would not have achieved my goal without her outstanding patience and support. I am not forgetting my dear children: Hosam and Osamah, who I thank God for daily.

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# CHAPTER 1

## PROBLEM STATEMENT

### **Introduction**

A technology that has truly changed the way the world operates is the smartphone. It is not just a communication device; it is a handheld personal computer that has become an extension of peoples' lives. It is more than just a device to communicate with others; it is integrated into daily life as a communication tool and as a multimedia device (Oksman, 2010; Westlund, 2010). Smartphones allow users to be connected all the time to whomever they want, wherever they are (Baron, 2010). The uses and gratifications that are experienced by people using smartphones are exponential in nature. It is a continually growing entity due to the ever-changing capabilities and communications options that smartphones provide.

People use mobile phones for many purposes: for private communication, keeping connected with friends and family, entertainment, sharing photos, videos, news, daily status updates, and a variety of other needs (Matanhelia, 2010; Oksman, 2010; Scarpino & Alshif, 2013). This is a worldwide phenomenon that crosses socioeconomic boundaries and is used for instantaneous communication and Internet access (Yelton, 2012). Foreign students can and do take advantage of this new technology. While living abroad, they are able to stay connected with their families, friends, and their country's news and culture. With the constant ability to stay informed and bond with family and friends regardless of the distance, uses and gratifications of smartphones are addressed (Nurullah, 2009).

Do smartphones make a difference for students studying abroad? It is the researcher's intention to investigate this question by focusing on Saudi Arabian students studying in the United States. This study examines the use of smartphones as a news resource by these Saudi Arabian students and the potential gratifications. The researcher will also address additional

related aspects of this topic such as: news interests, use of smartphone as a news resource attraction, the feeling of being overwhelmed by news, connectivity with different communities, sharing news, the use of Arab versus Western media, involvement in American culture and pertinent demographic patterns.

### **Smartphone Emergence**

It is apparent that smartphones will continue to develop because developers are increasingly using the newest technology, becoming smaller, and more lightweight (Yang, 2010) and also because of their perceived usefulness and the perceived ease of use (Park & Chen, 2007). In addition to new media, traditional media such as newspapers, radio and television are available on smartphones through the Internet (Oksman, 2010). It is this emergent technology that allows the continued use of traditional and new forms of media anywhere and anytime.

Prior to the invention of the Internet and mobile phones, the telephone was the main medium used to share news on interpersonal level. People used the telephone for social needs and keeping up with their local community of friends and family (Wei & Lo, 2006). The telephone is still considered an interpersonal communication device and could be categorized as a mass medium that has gratification factors as motives for telephone use, “including sociability, entertainment, acquisition, and time management” (Lee, 2006; Leung & Wei, 2000). With the invention of mobile phones and eventually smartphones there has been an explosive growth in the potential uses and gratifications for smartphone users. One of the areas that has grown exponentially is that of news acquisition. The use of smartphones makes it easier and effortless to get summaries of newspapers, watch TV news broadcasts, and to listen to radio news programs (Oksman, 2010). It appears smartphones have emerged as an important contemporary source for news delivery (Yang, 2010) especially because of the worldwide popular use of

smartphones. There are approximately one and half billion smartphone users in the world; Android smartphones have 798 million users, Apple smartphones 294 million users, and Windows smartphones 45 million users (ABIResearch, 2013).

### **International Students in the United States**

The idea of studying abroad in the United States has become increasingly prominent for many hundreds of thousands of international students. The number of foreign students studying in the United States has increased from 2011-2012 academic year by seven percent to 819,644 in 2012-2013 academic year (Education, 2013b). There is more than 40% increase in the number of international students studying in the United States over the past decade and the number has steadily increased over the past three years (Education, 2013b). The tremendous growth in the 2012-2013 academic year can be attributed to the large number of Chinese students: 235,597 at a 21% increase. The Saudi Arabian student population grew in the 2012-2013 academic year to 44,566 an increase of 30.5 percent from the 2011-2012 academic year. These are the two largest groups of international students in the 2012-2013 academic year among the top five countries studying in the United States: India with 96,754, South Korea with 70,627 and Canada with 27,357. Altogether, there had been a 7.2 percent increase in the overall number of international students in the United States (See Table 1).

Table 1

*Top 5 Places of Origin of International Students, 2011/12 - 2012/13*

Rank	Place of Origin	2011/12	2012/13	2012/13 % of Total	% Change
	World Total	764,495	819,644	100.0	7.2
1	China	194,029	235,597	28.7	21.4
2	India	100,270	96,754	11.8	-3.5
3	South Korea	72,295	70,627	8.6	-2.3
4	Saudi Arabia	34,139	44,566	5.4	30.5
5	Canada	26,821	27,357	3.3	2.0

*Note.* Institute of International Education, *Open Doors Report (2013)*

International students face many challenges when studying abroad. To counter these challenges, it is important for them to stay connected with their families, friends, and social groups (Scarpino & Alshif, 2013; Tas, 2013b). The use of technology has made this increasingly easy to do. By staying connected they retain a feeling and place in their community; this is a powerful antidote for homesickness and provides a potential “lifeline” in times of stress or difficulties (Scarpino & Alshif, 2013). The smartphone can also help them to further connect with their host culture using an accessible technology to interact and communicate. This also creates a sense of welcome and well-being, which is a key to their personal and academic success while abroad.

As a result, one of the aspects the researcher is examining is the students’ use of technology, specifically smartphones and how it affects their ability to adapt and connect to their host culture. The smartphone has also become a mass communication device that keeps people connected with public and larger networks, organizations and communities (Oksman, 2010); this is a critical aspect the survey is examining. The use of mobile phones in social contexts is more than a communication tool; it is commonly adopted for entertainment, social contact, family relations, peer relations, and socializations (Nurullah, 2009; Wei & Lo, 2006). This is another



important factor on which the researcher is seeking to collect data through pivotal survey questions.

### **Saudi Arabian Students in the United States**

The focus of the study is to ascertain whether Saudi Arabian students studying in the United States are using smartphones as a news resource and communication tool. There are approximately 45,000 Saudi Arabian students studying in the United States at different levels of higher education (Education, 2013a; SACM, 2013). The government of Saudi Arabia sponsors students through the King Abdullah scholarship program which began in 2005 (SACM, 2013). The program has grown and evolved to encompass the goals of its mission. This mission is to provide the means to the best universities worldwide in different academic disciplines to fill out the needs of government ministries, national corporations and the private sector (King Abdullah Scholarships Program, 2013).

Due to the vast increase in the number of and in the particular concentration of Saudi Arabian students at various universities around the country, there is interest in how to accommodate and work with the extreme cultural differences that may hinder their academic growth and progress (Redden, 2013). Saudi Arabians hold a collectivist cultural viewpoint, where family is held above all other aspects of life. This interrupts the academic flow in that students may take extended leaves for family obligations; take personal phone calls during class, and in general only associate with other Saudi Arabian students. This hinders their ability to adapt and assimilate to American culture (Redden, 2013). This information is important to the focus of the study as the connectivity students have with different cultural communities may impact their involvement in American culture.

As with other international students, Saudi Arabian students studying in the United States appear to use smartphones because it is popular and affordable. International students studying in the United States use media to increase their knowledge on a cross-cultural level (Tourtellotte, 2012). Saudi Arabian students and other international students use the American media to learn English and involve themselves more in the culture; the smartphone is one of the media that they use because it is available anywhere anytime (Tourtellotte, 2012). However, there are no studies about the use of smartphones among Saudi Arabian students studying in the United States. As the number of Saudi Arabian students studying abroad, and in the United States, continues to grow, this is an important area of both theoretical and practical research. Therefore, the area of the uses and gratifications of smartphones usage and the potential impact on cultural assimilation among Saudi Arabian students studying in the United States will add a wealth of information to the focus of smartphone news use research.

### **Statement of the Problem**

Students studying abroad use smartphones because it is the most convenient way to stay connected and accomplish a variety of everyday tasks and they are reasonably priced. The smartphone as a new technology is commonly adopted for maintaining relationships with family and friends, socialization, and entertainment (Nurullah, 2009; Wei & Lo, 2006). It is important for foreign students to stay connected with their friends, families and their cultural communities as well as try to adapt their host culture (Brown, 2009; Sherry, Thomas, & Chui, 2010). The impact of using smartphones to facilitate the growing communication demands on foreign students needs to be further investigated; it is an area that has seen little prior research.

Based on a pilot study (Alanazi, 2012), it appears that Saudi Arabian students at the collegiate level studying in the United States access news sources via their smartphones on a

regular basis. Based on this prior research, it was apparent to the researcher that further investigation into the topic was needed. The use of smartphones as a news resource by Saudi Arabian students studying in the United States and the gratification they experience needs to be examined. Other aspects and potential impacts such as the attraction of using smartphones to access news and whether they get more news and feel overwhelmed by the volume of news needs to be explored. The pilot study raised the question of Saudi Arabian students' connectivity with different communities based on how involved they are in American culture. It also inspired the need to conduct deeper investigation that includes the types of news they access via their smartphones using Arab or Western media. It also sparked interest in the demographic patterns in the use of smartphones as a news resource. Saudi Arabian students studying in the United States are different genders, in different higher education levels and are different ages. Due to this the researcher is looking for patterns or differences based on demographics.

### **Need for the Study**

The continuing revolution in communication technology is a constant challenge facing all mass communication research communities (Baran & Davis, 2011). One of the new technologies is the smartphone; the rapid emergence of the smartphone as an important tool in everyday life makes this communication device worth studying (Feaster, Dimmick, & Ramirez, 2008). There has not been enough research on media and news monitoring in the new media and communication literature (Bergström & Wadbring, 2012). Also, the role of mobile phones as multimedia devices still needs more research, especially with respect to accessing the news (Westlund, 2009). The interactive capabilities of smartphones are convenient, entertaining, and most important to this research, informative. The researcher is conducting the study to find out if foreign students are contacting their friends, family, and their communities and exchanging vital

information and news through smartphone technology and applications. This is a recent phenomenon; therefore there is a lack of foundational studies that solely examine foreign students' usage of smartphones and, in particular, their use for accessing news. Looking at our target audience of Saudi Arabian students studying in the U.S., the use of smartphones for news is non-existent except for the researcher's pilot study. This study will provide a basis of research in this emerging area and hopefully will inspire further research.

### **Purpose of the Study**

The purpose of this study is to investigate the uses of smartphones as a news resource by Saudi Arabian students studying in the United States. To guide this research, Uses and Gratifications theory is being used. As a part of this study, related issues addressed are: news interests, use of smartphone as a news resource attraction, feeling of being overwhelmed by the amount of news, constant connectivity with different communities, sharing news, the use of Arab verses Western media, involvement in American culture and pertinent demographic patterns.

### **Theoretical Perspective**

To frame the discussion of the use of smartphones as a resource for news among Saudi Arabian students in the U.S., the research will be guided by Uses and Gratification theory. This theory could provide an explanation of using smartphones as a source of news and as a need of the media user. It also suggests the user's role in the communication process through media.

The Uses and Gratification theory is "an attempt to explain something of the way in which individuals use communications, among other resources in their environment, to satisfy their needs and to achieve their goals" (Katz, Blumler, & Gurevitch, 1973, p. 510). It posits that the audience or consumer has personal choice in the media, that is the information,

entertainment, and technologies they consume to experience gratifications, also known as wants and needs (Albarran & Hutton, 2009). The research has usually focused on the gratifications desired and how they would meet the needs of the consumer and possible gratifications obtained (Albarran & Hutton, 2009). This is helpful because it lets researchers understand how people use the mediums or technologies, such as smartphones, and more importantly, on the purposes people use them for and their levels of satisfaction (Albarran & Hutton, 2009).

Uses and Gratification theory directly relates to the researcher's intent to ascertain why Saudi Arabian students studying in the United States use their smartphones and specifically their use to get news and the level of gratification that occurs when doing so. Most research questions and hypotheses are derived from the Uses and Gratification theory. The main questions are about the reason Saudi Arabian students studying in the United States use their smartphones, the types of news they are seeking and sharing via smartphones, and the extent to which they are satisfied and comfortable with utilizing smartphones to access news of their choice.

### **Research Questions and Hypotheses**

The focus of the study has produced eight main research questions and 15 hypotheses. Research questions were derived by the researcher's observations of Saudi students using their smartphones enthusiastically. The pilot study that was conducted to explore the patterns of the use of smartphones and the preferred formats used to get news by Saudi Arabian students was also influential in the creation of the research questions. The literature review was inspirational to add different lines of research questions.

RQ1: What are the news resources of Saudi students studying in the United States?

This question was designed to ascertain if the smartphone is one of the news resources that Saudi Arabian students studying in the United States utilize. The respondents were asked

what media they use to get news. This question will examine the researcher's theory that the smartphone is one of the main news sources.

RQ2: What do Saudi Arabian students studying in the United States use their smartphones for?

This question was designed to determine the uses of the smartphone in an attempt to show a correlation to the uses aspect of the Uses and Gratification theory. This is a preliminary research question; the related survey question asks respondents to identify their general uses of the smartphones.

RQ3: To what extent are Saudi Arabian students studying in the United States comfortable with utilizing smartphones to access news of their choice?

This is a critical research question; it directly relates to the essential information about student uses of smartphones as a news resource and gratifications they may experience. Based on Uses and Gratifications theory, many survey questions were generated concerning the use of smartphones as a source of news. The survey questions were designed to explore whether students have feelings of gratification based on the ease of access to current and updated news, the possibility of interactivity, and even feelings of being overwhelmed by the amount of news.

RQ4: What types of news are Saudi Arabian students studying in the United States seeking through their smartphones using Arab media and Western media?

This question was designed to assess essential information about the types of news the students seek to get through their smartphones and what media they rely on more; Arab media or Western media. The survey question asks respondents to specifically identify the following types of news they seek; political news, domestic news about Saudi Arabia, domestic news about the United States, social news, arts and celebrities news, sports news, health news, education news, and business news.

RQ5: What level of connectivity do Saudi Arabian students studying in the United States keep with their local American community, local Saudi Arabian community and their national community in Saudi Arabia?

It is the observation of the researcher that Saudi Arabian students studying in the United States use their smartphones to communicate via social networking sites such as Facebook and Twitter, and messaging applications such as Tango, B.B Messenger (Blackberry) and WhatsApp. This question was design to investigate the connectivity of the students with the aforementioned communities through a scale rating one to ten, one being least amount of connectivity and ten being the most amount of connectivity. This question is essential in ascertaining the extent to which students are maintaining Saudi Arabian and American social circles.

RQ6: Do Saudi Arabian students studying in the United States share news via social media using their smartphones?

This question is related to the extent of connectivity that Saudi Arabian students studying in the United States have with different communities. One aspect of connectivity is sharing news links via social media. To answer this question, the researcher poses two survey questions. Students are asked to identify their level of agreement or disagreement to the following statement: I'm sharing more news since adopting a smartphone. In addition they are asked about how often they share news links in email and specific social networking sites: Twitter, Facebook, and YouTube.

Students may be encouraged to share news more often using smartphones because it is so easy to do. This phenomenon could be related to the gratifications of the use of smartphones by accessing or being exposed to more news. There also could be feelings of being overwhelmed due to the vast amount of news consumption. Also, if students state they use social media sites to

share news, the researcher can conclude they are already using social media sites in general. The researcher assumes that accessing news via social media is one of the uses of smartphones, and sharing news is hypothetically a gratification of that use.

RQ7: Do Saudi Arabian students studying in the United States perceive a cultural effect of using smartphones as a news resource?

The cultural effect of media is different based on the country and the culture of origin (Westlund, 2008). This question investigates the cultural effect of the smartphone usage in general and for accessing news. Three survey questions were created to explore the perception of the cultural effects of the use of smartphones. The first question asks about the preferred language used in searching for and reading news. The second question asks about their agreement level with the following statement; I would be more interested in United States domestic news if my only options were to seek news from traditional media sources. The third survey question asks about their agreement level with the following statement; I would be more involved in the American culture if I did not use the smartphone.

RQ8: What differences and correlations exist between the demographics of Saudi Arabian students studying in the United States and their use of smartphones as a news resource?

To answer this question the researcher uses independent and dependent variables. The independent variables are: age, gender, studying English as a second language (ESL), and educational levels. The dependent variables are: how often Saudi Arabian students studying in the United States use smartphones to get news, the frequency of checking news, sharing news, feeling overwhelmed by news, and the perception of an impact of using the smartphone to be more involved in American culture. These dependent and independent variables have yielded the following hypotheses:



H1: There is a difference between gender and how often Saudi Arabian students studying in the United States use smartphones to get news.

H2: There is no difference between gender and sharing news via social networks using smartphones among Saudi Arabian students studying in the United States.

H3: There is a difference between gender and feeling overwhelmed by the amount of news since adopting smartphones among Saudi Arabian students studying in the United States.

H4: There is a difference between gender and the preferred language for reading news among Saudi Arabian students studying in the United States.

H5: There is a difference between gender and the perception of an impact of using smartphones to be more involved in American culture among Saudi Arabian students studying in the United States.

H6: There is a correlation between age and how often Saudi Arabian students studying in the United States use smartphones to get news.

H7: There is a correlation between age and sharing news via social networks using smartphones among Saudi Arabian students studying in the United States.

H8: There is a negative correlation between age and feeling overwhelmed by the amount of news since adopting smartphones among Saudi Arabian students studying in the United States.

H9: There is a positive correlation between age and the preference of reading news in English via smartphones among Saudi Arabian students studying in the United States.

H10: There is a correlation between age and the perception of an impact of using smartphones to be more involved in American culture among Saudi Arabian students studying in the United States.

H11: There is a difference between status as an ESL student and the preferred language for reading news among Saudi Arabian students studying in the United States.

H12: There is a difference between status as an ESL student and the perception of an impact of using the smartphone to be more involved in American culture among Saudi Arabian students studying in the United States.

H13: There is a correlation between education level and how often Saudi Arabian students studying in the United States use smartphones to get news.

H14: There is a correlation between education level and sharing news via social networks using smartphones among Saudi Arabian students studying in the United States.

H15: There is a correlation between education level and the perception of an impact of using smartphones to be more involved in American culture among Saudi Arabian students studying in the United States.

### **Definition of Terms**

Smartphone: “a mobile phone that is able to perform many of the functions of a computer, typically having a relatively large screen and an operating system capable of running general-purpose applications” (“smartphone,” 2013). The terms smartphone, cell phone and mobile phone are interchangeable. The smartphone is considered to be the most advanced technology of the three. It is a device, a tool of news, and a source of news.

News: “Newly received or noteworthy information, especially about recent events; a broadcast or published report of news, informal information not previously known to (someone), and a person or thing considered interesting enough to be reported in the news” (“News,” 2013). The term news will also refer to any information about international events, domestic events, community events, family matters and friends’ activities.

Foreign students: “foreign students are specifically referred to those internationally mobile students at least at university-level who pursue cultural education and skill training on a short-term basis from one nation to another, who are also known as international students” (Shu, 2012, p. 147).

### **Limitations**

There are several possible limitations of this study. This study focuses solely on Saudi Arabian students studying in the United States; therefore results may not be applicable to other foreign students, although it may yield useful data and insight about foreign students’ smartphone usage. Saudi Arabian students studying in the United States are the only participants in the survey. In addition, only those who subscribe to the SACM Facebook page and Twitter account had access to the survey link. Therefore, not all Saudi students studying in the United States have the opportunity to participate in the survey. Thus, the sample is considered non-probability and convenient in design. The limitation of non-probability sample is that it does not use random selection. This would inhibit the possibility of making generalizations about the entire Saudi Arabian student population studying in the United States. As with any survey it is difficult to illicit participation, especially among students in foreign country. As strangers, they may fear participation due to the possible perceived ramifications. They usually do not want a permanent record of their thoughts, ideas, beliefs and identity. The cost of smartphones is a possible limitation, although the majority of Saudi Arabian students receive a full scholarship from the Saudi Arabian government; therefore they should have the means to afford a smartphone. This may be considered a limitation of applying the results to other foreign students who may not have the access to smartphones.

## CHAPTER 2

### REVIEW OF THE LITERATURE

#### **Introduction**

The smartphone has changed the way people interact with media. It is a continuous connection with tremendous amounts of exchangeable information and news. This is made possible by immediate access to the Internet with the numerous applications of text messaging and social networking sites. The infinite growth of smartphone technology has inspired the researcher to investigate the uses and gratifications of using smartphones as a news resource by Saudi Arabian students studying in the United States.

#### **Overview**

The literature review explores the application of the Uses and Gratification theory to the use of the smartphone as a news resource. This is an appropriate theory to examine the phenomenal use of a new media (Lee, 2004). The literature review looks at the evolution of media in terms of news broadcast and access from the traditional media such as newspaper, radio and television to the explosive development of the new media with the access of the Internet such as computers, laptops, mobile phones, smartphones and other portable devices. The literature review presents the challenges foreign students face while studying abroad and adjusting to the host culture and also, how they take advantage of the evolution of media by keeping up with the news of their native communities. Although there are many nationalities of university students represented in the United States, the focus of this study will be solely on Saudi Arabian students.

A review of the literature shows a tremendous growth in the number of Saudi Arabian students in the United States due to the King Abdullah scholarship program that began in 2005,

as well as the challenges they face adjusting and being involved in American culture. Their connectivity to friends, family, and different communities is also explored.

### **Theoretical Perspective**

The literature review shows that the use of smartphones as news devices still needs more research. The Uses and Gratifications theory shows how a new medium, such as smartphone, functions when it is widely used in a society (Lee, 2004). The founders of the theory, Katz, Blumler, and Gurevitch (1973), stated that “interest in the gratifications that media provide their audiences goes back to the beginning of empirical mass communication research” (Katz, et al., 1973, p. 509). The foundation of Uses and Gratification theory was integrated within several disciplines such as media studies, sociology and social psychology (Feaster, et al., 2008).

Usually, emerging technologies increase the source selections and channels of information, providing different uses and gratifications to the users (Ruggiero, 2000). Therefore, the Uses and Gratification theory is always an appropriate approach to assess the use of a new medium or technology and to comprehend the users’ motivations, actions, and feelings towards their uses (Albarran & Hutton, 2009). Recently, scholars have applied the Uses and Gratifications approach beyond traditional media to new media such as mobile phones, computers and the Internet (Campbell & Kwak, 2010; Lee, 2004; Park, 2010; Vishwanath & Chen, 2008). The Uses and Gratification theory is the suitable choice to examine smartphone usage, as it is a phenomenological new media with multiple functions.

### **Uses and Gratifications Theory**

Katz, Blumler, and Gurevitch (1973) derived the Uses and Gratification theory from the empirical mass communication research (Katz, et al., 1973). They summarized the concerns of the different studies to reach the core of their new theory as follows:

(1) the social and psychological origins of (2) needs, which generate (3) expectations of (4) the mass media or other sources, which lead to (5) differential patterns of media exposure (or engagement in other activities), resulting in (6) need gratifications and (7) other consequences, perhaps mostly unintended ones. (Katz et al., 1973, p. 510)

From these points they defined the core of the theory as “an attempt to explain something of the way in which individuals use communications, among other resources in their environment, to satisfy their needs and to achieve their goals” (Katz, et al., 1973, p. 510).

The theory promotes the idea that audience members are active and associate their media choices with the gratifications that result from that choice (Katz, et al., 1973). It is an interesting point that the theory founders emphasized the role of the audience members is as critical in creating the content of the media: “many of the goals of mass media use can be derived from data supplied by individual audience members themselves” (Katz, et al., 1973, p. 511). This idea is now more evident in the mass appeal of creating content based upon the tastes of audience members. It also considers the competition media faces against other social life factors to fulfill need satisfaction (Katz, et al., 1973). The theory lists the three main sources of audience gratifications: “media content, exposure to the media per se, and the social context that typifies the situation of exposure to different media” (Katz, et al., 1973, p. 514).

The founders of the theory paid attention to “the social and environmental circumstances that lead people to turn to the mass media for the satisfaction of certain needs” (Katz, et al., 1973, p. 516). They listed five ways social media factors may be associated with the generation of media-related needs based on the history of communications research:

1. Social situation produces tensions and conflicts, leading to pressure for their easement via mass media consumption

2. Social situation creates an awareness of problems that demand attention, information about which may be sought in the media
3. Social situation offers impoverished real-life opportunities to satisfy certain needs, which are then directed to the mass media for complementary, supplementary, or substitute servicing
4. Social situation gives rise to certain values, the affirmation and reinforcement of which is facilitated by the consumption of congruent media materials
5. Social situation provides a field of expectations of familiarity with certain media materials, which must then be monitored in order to sustain membership of valued social groupings. (Katz. et al., 1973, p. 517)

The theory tries to explain the uses of any media and gratifications that could be attained considering the audience's interest in the content (or interactivity with it) combined with the social context. Therefore, it fits the focus of this study exploring the different uses of the smartphone, in particular how active the Saudi Arabian students studying in the United States are using their smartphones to access news content, the gratifications they attain, and how their social situation as foreign students could be culturally affected.

The theory's founders provided an explanation of how each medium could be different based on a unique combination of:

(a) characteristic contents (at least stereotypically perceived in that way); (b) typical attributes (print vs. broadcasting modes of transmission, iconic vs. symbolic representation, reading vs. audio or audio-visual modes of reception); and (c) typical exposure situations (at home vs. out-of-home, alone vs. with others, control over the temporal aspects of exposure vs. absence of such control). The issue, then, is what

combinations of attributes may render different media more or less adequate for the satisfaction of different needs. (Katz. et al., 1973, p. 514)

The smartphone has a new combination that could be examined by this explanation. It has access to diverse and vast amounts of news and information. The typical attribute of the smartphone is a combination of what is mentioned above; it has all formats at the same time. The typical exposure situation is unique with many possibilities of experiences. This supports the logic of using the Uses and Gratification theory in this study.

### **Evaluation of the Uses and Gratifications Theory**

The Uses and Gratifications theory refuted the Hypodermic Needle Theory and the passive audience perspective. In reverse, media users are perceived as active and aware of their needs and desired gratifications which will ultimately determine the media's influence (Lometti, Reeves, & Bybee, 1977). Blumler (1979) stated that the theory was widely acknowledged in the late 1950s and early 1960s at the time of disappointment of the short-term effects of the media: “[i]t reflected a desire to understand audience involvement in mass communications in terms more faithful to the individual user's own experience and perspective than the effects tradition could attain” (p. 10). This theory has changed the question the researchers were asking for many years, from, “what do the media do to the people?” to: “what people do to the media?” (Swanson, 1979). Swanson (1979) acknowledged these attributes in saying: “introducing personal interpretations or perceptions into the mass communication process was a major departure from the effects tradition, for which we should applaud the uses and gratifications approach” (Swanson, 1979b, p. 41).

Blumler (1979), who is one of the founders of the uses and gratification theory, has raised some concerns regarding the social and environmental circumstances. He wondered “[h]ow



could the derivation of media needs from, say, restricted work experience, geographical mobility, high education, social isolation, and sexual status all be brought under one theoretical roof?” (p. 22). He also believes that other factors rather than the sex, age and social class should be considered with focusing on a possible combination of multiple and interacting circumstances (Blumler, 1979). He also criticizes the focus on an association between certain social position variables and certain gratification tendencies with considering the possible impact of the process in between them (Blumler, 1979).

Swanson (1979) has raised some conceptual concerns based on his perception of the uses and gratification approach. He was skeptical “[w]hether the uses and gratifications approach is, in fact, an attempt to apply functional analysis to the study of mass communication” (p. 34). He also mentioned that there is confusion regarding how to define the major concepts in the theory: uses, gratification, motive, and need. He stated that it is difficult to investigate the gratification of media consumption without being able to specify:

(a) what a gratification is; (b) what the relation is between a gratification and a use; (c) whether a use is a motive, the result of a need, the statement of a function, or all three of these, or none of these, it is not yet clear (a) what the necessary components are of a uses and gratifications explanation, (b) how those components serve to provide a satisfactory account or explanation, or (c) how a uses and gratifications explanation differs from other accounts we might offer to explain the same behavior. (Swanson, 1979b, p. 40)

Ruggiero (2000) stated that some mass communications scholars have countered the Uses and Gratification theory is not a strong social science theory. He said, “I argue just the opposite and any attempt to speculate on the future direction of mass communication theory must seriously include the uses and gratifications approach” (p. 3). He also said that after being out of

favor for decades, the advent of new technologies, such as computer-mediated communication, has invigorated the significance of the Uses and Gratification approach from dormancy (Ruggiero, 2000). He asserted that “Uses and Gratifications has always provided a cutting-edge theoretical approach in the initial stages of each new mass communications medium: newspapers, radio and television, and now the Internet” (Ruggiero, 2000, p. 3). He also believes it will continue to be a highly serviceable theory for the twenty-first century with more focus on the evolving psychological, sociological and cultural context of new media (Ruggiero, 2000).

### **The Use of the Theory in the Media Studies**

A general Google search of Uses and Gratifications theory produced approximately 163,000 results. Google Scholar produced 43,900 academic results. It is widely used in the field of social sciences. Over the past four decades the theory has been used innumerable times. Most recently it has been used with the advent of new technologies. The following studies are some examples of research that provided the inspiration for the current study, specifically, the different uses of mobile phone, and the potential attained gratifications.

Leung and Wei (2000) examined the uses and gratifications of the cellular phone in one of the earliest studies of mobile phone usage. The study showed that “mobility, immediacy, and instrumentality founded as strong gratifications” (p. 308). The use of mobile phones anywhere and everywhere is strongly linked to mobility and immediate access gratifications. Instrumental gratifications are attained by the different instrumental uses such as scheduling appointments, shopping, and seeking information. Other strong gratifications founded in the study are intrinsic factors such as affection and sociability. These gratifications can be gained by different uses such as; personal communications, gossip, keeping up with family, and feeling safe (Leung & Wei, 2000).

Peters and Ben Allouch (2005) suggested in a longitudinal field study of mobile communications that users' motivations are primarily influenced by the task-oriented uses. They also found that initial gratifications like permanent and social interaction become more latent due to the quick habituation of mobile communication devices. Fashion/status and entertainment gratifications grow to be more dominant (Peters & ben Allouch, 2005).

Wei and Lo (2006) focused on connectivity of the mobile phone use. They believe that college students, especially freshmen, are in need of building new social relationships and have a strong need to be close to family. The results revealed that usage of mobile phones promotes ties and strong bonds with family while being used for building social relationships. They found a significant gender difference in the use of mobile phones. Women use mobile phones more in connection with family while men use it more for information-seeking. Both genders use the mobile phone to meet the need for social relationship maintenance (Wei & Lo, 2006).

Albarran and Hutton (2009) studied how young Latinos use mobile phones in a cross-cultural study in the United States and five Latin American countries. They found that

the data illustrates that even though many of the countries represented in this study share a common language as a base, culturally every country is unique in terms of how young people are using their mobile phones and the gratifications derived from its use. (p.105)

The results indicated that the most important gratifications are sociality -“keeping in touch” and instrumentality -“helping to plan your day.” Accessing news and information and reading email are the lowest gratifications. The mobile phone is the preferred technology across all six countries. Only in the United States is the use of mobile phone to share social information with

friends ranked first among other choices. Respondents in the five other countries preferred the “face-to-face” social connection (Albarran & Hutton, 2009).

Nurullah (2009) described the transformation of the nature of social contacts which created new “technosocial situations.” This situation is the result of the expansion of the Internet in smartphones (Nurullah, 2009). He found that “there are many gratifications involved in using the cell phone, as it creates a sense of belonging, bonding with friends and family, constant availability, and keeping in touch with long distance relations. It also shapes the identity and prestige of adolescents across cultures” (Nurullah, 2009, p. 22).

In Hostut’s 2010 study, *Uses and Gratifications of Mobile Phone Use among Students in Turkey* the researcher found that the sociability, reassurance and relaxation are the most prominent gratifications predicting mobile phone usage. The appearance of status, fashion and innovation gratifications are strong motivations. The results indicated the level of usage could be determined by the user’s age, previous experience and mobile phone brand.

Zhen, Honglei, and Sen (2012) found that the main obtained gratifications from using mobile phones are: enhancing connectivity, maintaining immediate accessibility/availability, and the convenience of usage.

The current study examines the use of smartphones as a news resource among Saudi Arabian students studying in the United States. To reach this goal, it examines the most common uses and gratifications of mobile phone use in the previous studies with a focus on accessing and sharing news. The research questions and hypotheses tested social connectivity gratification. Other gratifications such as convenience and the ease of use are examined too.

## **Evolution of Media**

It is important to examine the evolution of media to assess the use of a new media. The chronological development of technology began with traditional media and continued to the evolution of smartphones. In order to properly examine the use of media for communication and accessing news, an overview of literature on traditional media such as newspaper, radio and television and the development of new media including the computer and the Internet are presented. The innovation of mobile phones and eventually the smartphone is a critical aspect of the literature review specifically in terms of using smartphones as a news resource and the ability to share news, and how it can possibly cause feelings of being overwhelmed by news.

Mass media has provided its audience with mass amounts of content and messages through the different eras of communication, from traditional media to new technological multimedia. Deflure and Dennis (1994) describe the communication process and the use of a medium as follows:

Human beings have been communicating in one way or another for a very long time, however, their ability to use a medium to store their messages to be retrieved later or to transport them from one place to another is a relatively recent development. A medium is a device for moving information through time or space. It can be as simple as a carving on a piece of stone or as sophisticated as a satellite-linked television system. In either case, its function is the same. A communicator formulates a message and moves or records it by means of the medium, and a receiver in another place or at a later time constructs meaning so as to interpret the message. Thus, mediated communication is like all other

human communication. It is a process linking senders and receivers who share some kind of verbal or written language. (DeFleur & Dennis, 1994, p. 2)

This description applies to traditional and new media. It is all about creating and sharing content or news between a sender and a receiver using media. There are different types of media such as magazines, newspapers, radio, film, television, music, and the Internet (Tourtellotte, 2012). News is one of the most important messages that the media passes through its different channels (Bittner, 1989). Some research suggests that people are attracted to news because of several elements such as conflict, prominence, proximity, human interest, importance, timeliness and unusualness (Merrill, Lee, & Friedlander, 1990). People get news through their friends, family and local society in addition to traditional media such as newspapers, radio and television (Urista, Qingwen, & Day, 2009). Currently, the technological revolution provides people with numerous ways to get news through multiple devices with unlimited access such as computers, e-readers, smartphones, and tablets (Chyi & Chadha, 2011).

### **Traditional Media**

The most common traditional forms of media are newspapers, magazines, radio, and television. When the invention of movable type was introduced in Europe in the fifteenth century people found a fast way to produce and send messages, which led to the existence of thousands of newspapers in the world (Bittner, 1989). For instance, there were 65 dailies and 500 weeklies in the United States in 1830; that increased to more than 2,000 dailies and 12,000 weeklies by the end of the nineteenth century (Merrill, et al., 1990). In the 1990s, 500 million readers were consuming news from more than 60,000 newspapers published around the world (Merrill, et al., 1990). By the twentieth century newspapers had become an important economic and social

power in society, especially with the founding of professional news associations (Merrill, et al., 1990).

Traditional print news remains popular today even with the introduction of the Internet and the spread of newspapers' websites, electronic newspapers and news sites. The flow of news and news gathering developed as an early type of electronic newspapers distributed through teletext and videotext systems. Then satellite communication made it possible to print newspapers at the same time anywhere (Merrill, et al., 1990). Recently, the number of news consumers reached 2.5 billion for print newspapers and 600 million in digital form (Chisholm, Kilman, Milosevic, & Henriksson, 2013). The 2013 annual survey of the World Association of Newspapers and News Publishers shows that print newspapers still reach 20 percent more news consumers worldwide than the Internet reaches. This may result because print circulations are increasing in Asia, where there is population growth, but declining in the west (Chisholm, et al., 2013). Some paid newspapers have disappeared in the west with the flourishing of the free dailies (Bergström & Wadbring, 2012). Currently, despite the capability for more people to access a print newspaper than an electronic version of print newspapers, the majority of existing and established newspapers use every available technology such as news apps, Twitter, Facebook, YouTube and other social networking sites to distribute news and information. Smartphone users can access a vast array of news from different newspapers worldwide.

Radio, another form of traditional media, is one of the most common news sources in the world. It started to bring music and news to a large population shortly after its experimental era in 1892. Radio stations in different formats usually offer at least some news even if they are not news radio stations (Bittner, 1989). AM and FM radio stations usually provide the audience with more types of news than newspapers and magazines with a vast selection of news topics such as

sports, politics and religion (Rogers, 2011). The majority of radio stations worldwide are now available online and through different applications, allowing news to be easily accessible from anywhere at any time.

Television is another universal traditional media used for receiving news (Westlund, 2009). The golden age of television was in the 1950s and it has continued to be the dominant news resource with ever-expanding news programs (Bittner, 1989). News content continues to dominate in the broadcasting industry with twenty-four-hour news channels providing consumers the ability to watch at their leisure (Bergström & Wadbring, 2012). As with newspapers and radio stations, television stations have followed suit in making programming available via many applications, website, YouTube channels and different social networking sites.

Technology continues to develop and becomes more innovative. New technologies are changing the field of mass communications media studies (Bittner, 1989; Merrill, et al., 1990). The new technologies that influenced traditional media had a tremendous impact on journalism and the way that news about what is occurring in the world is delivered to people (Kawamoto, 2003). Historically, cable television was one of the new technologies that allowed interactive systems to provide people with a multitude of television channels that included cable radio stations (Bittner, 1989; Merrill, et al., 1990). Teletext and videotext were also a part of the technology developed for delivering information and news through television (Merrill, et al., 1990). Microwave and satellite technology started the stage of sending data through space which helped to make the flow of news and information high speed (Bittner, 1989; Merrill, et al., 1990). The wire services such as Associated Press, Reuters, and UPI had the advantages of these new technologies to provide mass media with unlimited news stories distributed via the press



(Bittner, 1989). Technologies such as computers and the Internet continually revolutionized the news industry, making news available around the world at the moment of the event.

### **Computers and the Internet**

An innovation that affects almost all aspects of a person's life is the computer. The field of mass communication and the news industry of the 1980s were affected by the development of the desktop computer. This was the era in which radio and television stations became automated, newspapers were printed using advanced printing presses, and cameras were shifting towards digital development (Bittner, 1989). Computer development evolved through many generations such as desktop, laptop, notebook, smartphones, e-readers and tablets. Users can have Internet access through any one of these devices (Lenhart, Purcell, Smith, & Zickuhr, 2010). The Advanced Research Projects Agency, an arm of the United States Department of Defense developed the Internet in the 1960s, although it did not truly impact the way the world communicates until the widespread use of the Internet in the 1990s (Kawamoto, 2003).

### **The Mobile Phone**

The focus of this study is on using smartphones to get news. It is apparent that smartphone developers continue using the newest technology to make them smaller and more lightweight (Yang, 2010), and consumers continue to perceive smartphones as useful and easy to use (Park & Chen, 2007). In addition to new media, the traditional media such as newspapers, radio and television are available on the smartphone through the Internet (Oksman, 2010). The following is a brief history of the development of the phone, mobile phone and smartphone.

Before the mobile phone, people used telephones to communicate. The telephone was considered an interpersonal mediated communication and could be categorized as a mass medium that delivers entertainment services (Lee, 2006; Leung & Wei, 2000). There are “a mix

of interpersonal and mass media gratification factors as motives for telephone use, including sociability, entertainment, acquisition, and time management” (Wei & Lo, 2006). People use the telephone for social needs and to keep up with their local community of friends and family (Wei & Lo, 2006). Prior to the invention of the Internet, the telephone was the main medium used to share news on an interpersonal level.

With the invention of the mobile phone, interpersonal communication became easier. In the past, people had to stop by a public phone to make a call, while today people carry their mobile phones on their persons, in their cars, on public transportation, in restaurants and even at their homes (Feaster, et al., 2008). The growth of mobile phone users is unprecedented (Bakke, 2010); it has become a part of everyday life (Peters & ben Allouch, 2005). It is a revolution in the communication field (Wirth, Von Pape, & Karnowski, 2008).

The race to create mobile phone technology began in Europe, United States and Japan after World War II (Dunnewijk & Hultén, 2007). The first generation (1G) started in the experimental stage in the 1950s, but the first mobile phone was launched in 1973 by Motorola then expanded by many companies (Baron, 2010; Yang, 2010). The first generations of mobile phones were larger and heavier (Zhen, et al., 2012). At first they only provided voice calls then advanced to text messaging (Kim & Jin, 2005). The second generation (2G) or GSM technology was used widely in 1991 with increased capacity, higher transmission speeds, and richer content of messages; these technologies increased with the launch of the third generation (3G) technologies in 2001 (Dunnewijk & Hultén, 2007). The 3G blended the capabilities of the mobile phone and a personal computer by combining the features of the phone with those of laptops (Zhen, et al., 2012). In the mass communication field, the mobile phone is categorized as

personal, social, and mass media since it provides for personal, “peer-to-peer,” and mass communication needs (Oksman, 2010).

The 3G technology was the real revolution in the mobile phone functionality (Zhen, et al., 2012). The availability of the Internet on mobile phones allowed users to send emails (Peters & ben Allouch, 2005), browse the web, and watch television (Oksman, 2010). The traditional media became combined in mobile phones giving more opportunities for the interaction between traditional media and the audience. The Internet promoted communication and online discussions but the mobile phone added immediate and direct interaction with the news (Oksman, 2010).

### **The Mobile Phone and Culture**

Every new technology has a potential impact on people and their social lives (Oksman, 2010). The mobile phone is considered a social phenomenon, playing an important role in social integration in the current era (Oksman, 2010; Westlund, 2009). Individuals adhere to specific rules and sociocultural surroundings that influence their lives; the use of mobile phones is dictated by these factors (Matanhelia, 2010). With the widespread emergence and acceptance of mobile phones, it was questionable how the mobile phone would affect communication between people (Oksman, 2010). It is expected with the adaption and use of mobile phones that a new or different media behavior will emerge (Oksman, 2010). With the use of mobile phones, people have vast freedom to communicate anytime anywhere (Baron, 2010), although, for some people freedom could mean being unreachable by any phone at any time (Nurullah, 2009; Oksman, 2010). For example, in contrast with a landline, the mobile phone adds privacy because it only belongs to one person; a person can control with whom they speak and limit their interactions with others (Oksman, 2010). Mobile phones can be an agent of social change, as they combine individual and social lifestyles; it is a device of fashion, identity, and prestige for individuals

(Nurullah, 2009). The use of mobile phones in social contexts is more than a communication tool; it has multiple functions such as watching videos, listening to music, playing games, and staying connected with family and friends through different social networking sites (Nurullah, 2009; Wei & Lo, 2006). Nevertheless, it is proposed that mobile phones endorse social ties more than old-fashioned media (Oksman, 2010; Wei & Lo, 2006). The adoption of mobile phones and their impact on society varies in different cultures and countries (Westlund, 2009). The social impact of using mobile phones in different cultures changes as the technology of the device itself evolves (Albarran & Hutton, 2009).

### **The Smartphone**

The mobile phone developed into a device with new interactive features and functions that of a laptop and thus be known as a “smartphone” (Yang, 2010). The development of smartphones started in the early 1990s but the revolution exploded in 2007 (Smart, 2012; Yang, 2010). The mobile market after that was dominated by different operating systems such as Apple, Android, Windows, and BlackBerry with continuous new generations (Smart, 2012; Yang, 2010). Smartphones are characterized by many functions such as camera, video, radio, TV, GPS, mp3 player, and a full market of different applications (Baron, 2010; Feaster, et al., 2008; Westlund, 2009; Yang, 2010). It is also used to download music and be a part of interactive video games (Albarran & Hutton, 2009). There are other portable devices like tablets, which are similar to smartphones but larger in size with software that has much more rapid performance than the Web-browsing capability of smartphones (Smart, 2012).

The popularity of smartphones expanded worldwide. There are one billion smartphone users in the world (“Global mobile statistics,” 2013). People are passionate with their smartphones because it is an instantaneous, interactive and personal device that connects them

with their local communities, social networks and mass media (Oksman, 2010). Smartphone users usually exhibit “checking behaviors” in which they check their smartphones many times in everyday life (Oulasvirta, Rattenbury, Ma, & Raita, 2012). Falaki et al (2010) studied 255 smartphone users and found that “different users interact with their phones 10-200 times a day on average; the mean interaction length of different users is 10-250 seconds; and users receive 1-1000 MB of data per day, where 10-90% is received as part of active use” (Falaki et al., 2010). With people checking their smartphones so often, it raises the question of whether or not and how often they use it to get news.

### **News on the Internet**

People were already using the Internet to get news before they began using their smartphones for the same purpose. The evolution of new technologies increased the importance of online news by providing news consumers with a vast variety of sources (Boczkowski, 2005; Salwen, Garrison, & Driscoll, 2005). Videotext and other similar news services such as CompuServe, America Online and Prodigy were developed in 1980s as the first versions of the electronic newspaper (Boczkowski, 2005; Salwen, et al., 2005). After 1994, media companies started to provide online news with constant updating (Oksman, 2010; Westlund, 2009). The new technologies made it possible to find online news available in one or in many different formats such as text, audio, images and video with suggestions of related news stories (Salwen, et al., 2005). Most print and broadcast news organizations, especially traditional newspapers, operate online news sites to carry updated news and social reactions (Salwen, et al., 2005).

In the 1990s the news organizations started to take advantage of the benefits of the Internet by publishing content online (Boczkowski, 2005). *The Chicago Tribune* and *San Jose Mercury* published online content through America Online in 1992, but *Palo* was launched in

1994 as the first web newspaper in the United States (Boczkowski, 2005). Websites were established rapidly in conjunction with all traditional newspapers such as *The New York Times* and *The Washington Post*, both of which were launched in 1996 (Salwen, et al., 2005). In general, most news companies started to deliver news through the Internet in the 1990s including television and cable companies (Yang, 2011). Search engines such as Google joined the online movement by launching Google News in 2002 (Salwen, et al., 2005). Also, social networking sites such as Facebook, Twitter, and YouTube are considered to be news agents that provide great paths to share information and news between family, friends, and other communities (Bergström & Wadbring, 2012; Urista, et al., 2009). The explosion of available news has become the norm; people have become accustomed to non-stop, twenty-four-hour a day inundation of news updates and breaking stories. The ever-increasing use of smartphones has made it much simpler to connect to a multitude of news sources, stay connected with the world and have the ability to share news stories with friends, family and different communities.

### **Using Smartphones for Getting News**

The Internet provides uncountable sources of news using computers; this has expanded with the use of smartphones in recent years in which the chance to consume news has never been greater (Bergström & Wadbring, 2012). The time of waiting for news on radio or television or waiting for the newspaper in the morning is over; with smartphones, all news in all formats including text, images, audio, or video, is available at the moment of the event (Westlund, 2009; Yang, 2011). Online news started in the 1990s while mobile news is a relatively new product (Yang, 2011). Newspaper and magazine production is now challenged by the ease of access and the ability of users to share online information including news, blogs and commentaries (Gershon, 2013). The advantage of the smartphone is the mobility of access; anytime and

anywhere the news is accessible and sharable (Yang, 2010). The idea of social sharing on many websites such as YouTube provides a higher circulation of news stories. No longer does someone “miss” the news; it is always available in various online formats (Oksman, 2010). The use of smartphones makes it easier to watch numerous YouTube news channels. It is effortless to get summaries of newspapers, watch TV news broadcasts, and to listen to radio news programs (Oksman, 2010). Smartphones have emerged as an important contemporary source for news delivery (Yang, 2010).

In the beginning of the technological surge, news companies developed their mobile news sites and news applications to catch the attention of the audience even before the revolution of smartphones (Yang, 2011). The first attempt was by *The Wall Street Journal* in 1994 with the design of Personal Journal for the Windows mobile operating system (Kawamoto, 2003; Salwen, et al., 2005). The *New York Times* was also one of the first newspapers to invest in mobile news (Yang, 2010). Television news stations started providing their content through the mobile phone gradually (Steinbock, 2005). CNN launched a news service in 1996 with PageNet to distribute updated news every 30 minutes, then expanded the service in 1998 with Nokia to provide news service using short message service (SMS) and wireless application protocol (WAP) (Steinbock, 2005). In general, the popularity of smartphones being used as news devices inspired news companies to continue developing their websites and apps to make their content more accessible on smartphones (Rogers, 2011; Yang, 2011).

Yang (2011) found that 67.3% of smartphone users have accessed news via a smartphone; they are more interested in news and access news through different news media. He also found 69% of smartphone news consumers get news via smartphones from Google and 60% get news from Yahoo while 50% of the smartphone news consumers had used Facebook to get

news, followed by CNN (41%), local newspaper websites (30%), Twitter (26%), and a general search for news (25%). Almost all sites are now multipurpose in nature; they may be news sites that offer the interactivity of a social networking site or vice versa. The study shows that “portal sites were most popular with smartphone news consumers followed by social networking sites and cable TV sites. Network television sites were slightly behind cable television sites, and newspaper sites gained slightly more attention than other sites” (Yang, 2011, p. 20). Results show that the vast majority (79%) of smartphone news consumers got news through web browsers, while 43% used text messages, 30% used e-mail, and 16% used apps (applications) to get news.

Although there are extensive numbers of smartphone users, there is limited information known about mobile news consumers (Yang, 2011). It is known that 75% of teenagers and 93% of adults ages 18-29 now have a smartphone or at least a cell phone (Lenhart, et al., 2010). Some researchers suggest that minorities, young people, low income and uneducated people access the Internet only through their phones (Yelton, 2012). A majority (62%) of teenagers get their news via the internet (Lenhart, et al., 2010). Smartphone news consumers reported higher satisfaction and more interest in other news media and were more likely to be younger males. It is also indicated that smartphone users access news sites on their phones more than traditional forms of media like newspapers, television and even social networking sites (Yang, 2010).

Westlund (2008) used three survey data sets collected each year from 2005-2007 to follow how users’ news consumption on mobile phones changed. He found that the use of mobile phones to obtain news rose from 7% to 12% of mobile phone users, with a more significant increase among men than women. Women consumed less news even from traditional sources and the Internet, and it was found that they used their smartphones to access news less



than men in general (Yang, 2010). Another important variable was age. Younger consumers used their smartphones more than older people (Westlund, 2008; Yang, 2010). Those who reported being more comfortable with using mobile technology tend to be engaged politically and socially than those who report not feeling as comfortable using the devices (Campbell & Kwak, 2010).

Smartphones provide countless sources of news and information but what makes them easier is the use of applications for sport news, politics, domestic updates and many other areas, which allow users to access specific topics of interest (Holton & Chyi, 2012). People tend to look for news that corresponds to their interests and viewpoints (Rogers, 2011). Online news consumers access news sites to get breaking news stories, weather reports, sports scores, and stock quotes (Salwen et al., 2005). Thus, even with countless news sources and news stories, people usually focus on specific news issues (Hoffmann & Kornweitz, 2011).

### **Creating and Sharing News**

As DeFleur and Dennis (1994) described, mediated communication in human communication is “a process linking senders and receivers who share some kind of verbal or written language”. With the evolution of the Internet, online news, smartphones, and other new technologies, people start to share information and news about themselves and the life around them, including what they see and receive from different sources. For instance, the billions of mobile phone subscribers around the world can communicate regardless of where they are by sharing information instantaneously (Bakke, 2010). With a camera in their phone, any user can be a news resource by photographing an event and posting it on the web so it becomes a news story for the public (McKeague, 2011). That news story could be used by traditional media, making smartphones a functional channel between new media and traditional media (Oksman,

2010). Audiences now have the possibility of interacting and sharing their information and news with traditional media through text messages, Twitter, and email (Oksman, 2010).

There are some new media that depend mainly on users' videos such as YouTube. Many news websites also use audiences' pictures and videos as a part of daily news. Additionally it is the trend in traditional media (Oksman, 2010). Social media, specifically Social Networking Sites (SNSs) have become the number one way for people to gain access to news shared by users (Ma, Lee, & Goh, 2012). SNSs differ from other mass media because they allow users to engage with others in their social network by sending messages along with their pictures or videos (Urista, et al., 2009). Through methods of online publishing, networking techniques, and creating content, people can immediately render their views to others, adding to the phenomenon of news content driven by users of social media (Bivens, 2008; Hoffmann & Kornweitz, 2011).

Social media has become the top outlet for people to access news stories shared by individual users (Ma, et al., 2012). Ma et al (2012) found that "users are more likely to share news stories that they like and find relevant, [and] there are specific factors underlying users' news sharing intention, including tie strength, opinion leadership, and news relevance." They also noted that people could connect over boards on social media and find people who share similar interests, thus encouraging users to share more information (Ma, et al., 2012). The ability to share news instantaneously is a key factor in the study. It may indicate the popularity of smartphone use for accessing news and sharing it through different online sites, giving an in-depth look at the smartphone habits of Saudi Arabian students studying in the United States.

### **Overloading News**

In this study, the researcher uses the terms overwhelmed although the literature review often uses the terms overloaded. As indicated by their new behavior of constantly checking their

smartphones, users seem overloaded with information and hyper connectivity. As mobile technology grows and changes in ways once thought impossible, users can constantly be reached and can also always have access to new information, creating feelings of stress or anxiety for some (Baron, 2010). While those who produce news look for innovative ways to increase the amount of information available and number of forums to deliver news as a way to grow their audience, users may not necessarily find more news to be better and additional information can have consequences for consumers (Holton & Chyi, 2012).

Holton and Chyi (2012) found that news consumers exposed to large amounts of information experienced a feeling of being overloaded. It indicated that there is an association between overload and news access via computers, e-readers, and Facebook which is not found with the use of other sources such as television and the iPhone. One of the interesting findings was that Facebook, the most prevalent SNS, could cause unwanted effects and overload its users while they interact with friends and receive unexpected news and information delivered. The three factors found to predict the amount of overload a user experiences are gender, news interest, and the use of specific news platforms and outlets. They concluded through their research that females are more likely to feel overloaded with news (Holton & Chyi, 2012). Being overloaded by the constant inundation of news and information may put users at risk of feeling overwhelmed. This is also a key factor in this study.

### **Foreign Students Studying Abroad**

The period after World War II was the first time a surge of international students left their native countries to seek an education. Considered the most advanced nations at the time based on culture, politics and education, the United States, the United Kingdom and France promoted the education of international students during the 1950s through the 1970s (Shu, 2012). The United

States has maintained the highest number of foreign students since the 1980s (Shu, 2012).

Perhaps one of the main reasons the American higher educational system is held in such high status is due to the American values of pluralism, pervasiveness and openness. It is considered a melting pot that welcomes and accepts foreign students with a variety of cultural differences regardless of age, gender, or country of origin to study at their choice of university (Shu, 2012).

### **Adaption Challenges**

Although hundreds of thousands of foreign students choose to study in the United States each year, they do so knowing they will face many challenges. Beyond the traditional stress of being a college student, they encounter difficulties with assimilating to a vastly different culture as well as facing language and communication barriers (Tas, 2013b). It can be difficult for foreign students to adapt as they experience culture shock; this makes the process of acculturating uncomfortable and confusing during this period of adjustment (Tas, 2013a). This can be compounded when students arrive in the United States with some expectations that are not met such as easily mastering the language, having a comfortable social life and achieving academic success (Özturgut & Murphy, 2009).

It has become apparent to many universities that they must gain an understanding of and create strategies that assist in supporting international students' needs, cultures, influences and expectations. In doing so they have created specific programs with the main purpose of helping the students adapt and gain useful cultural skills (Özturgut & Murphy, 2009). Many students hail from countries in Asia where there is great emphasis placed upon interpersonal relationships with family, friends and the community. Fischer (2012) stated that it is sometimes shocking to encounter the individualistic American society which has a more relaxed view of these relationships. He also found European students and those from other English speaking countries

do not have such a difficult time adjusting to this type of culture and establishing friendship connections due to the similarity of their native culture (Fischer, 2012).

This leads many international students to gravitate toward those who are from their country or other international students. They perceive these friendships as deeper in nature and more supportive as compared to the American friendships which they view as superficial (Smith & Khawaja, 2011). Foreign students have expressed that they desire more meaningful relationships with their American counterparts (Fischer, 2012). Some of the reasons they have difficulty in forming friendships are based upon factors such as shyness or poor language skills in addition to blaming Americans for not pursuing friendships (Fischer, 2012).

Language skills are listed as the most critical barrier in achieving close personal relationships with American classmates, adjusting to university life and adapting to a new culture (Lee, 2010; Sherry, et al., 2010; Smith & Khawaja, 2011; Tas, 2013b). Many foreign students, especially those from nonwestern countries who experience isolation and do not make friends easily, internalize the issue and blame their lack of language proficiency as the main barrier to negotiating cultural and linguistic challenges (Sherry, et al., 2010). These differences not only affect personal relationships but they can also effect communication with staff and faculty. Many students found that once they learned the new language they started to adapt easily to the culture (Lee, 2010).

Many of the challenges are based upon the stresses of learning a new educational system, learning new skills, homesickness, low self-esteem, cultural misunderstandings, gender differences, alienation and the lack of inclusion in their new host culture. All of these stresses can create a cacophony of issues that impede a student's ability to learn and adapt (Lee, 2010; Sherry, et al., 2010; Smith & Khawaja, 2011; Tas, 2013b).

Same-culture networks are often crucial for the wellbeing of international students (Sawir, Marginson, Deumert, Nyland, & Ramia, 2008). Many students expressed an important need and desire to have co-national (same native country) friendships for many reasons, such as the ability to communicate with ease, relieve stress, experience comfort and stay reminded of their home country. They stated they used this strategy because of the desire to feel supported; this implied that they were minimally exposed to the host language and culture, further exasperating the situation (Brown, 2009).

There are advantages to modern communications devices; the ability to stay in contact with those who may be long distances away is extremely easy and available instantaneously. Social networking sites in particular allow people to communicate regularly with family members, friends, and their various communities (Scarpino & Alshif, 2013). Three themes were evident in the use of modern technologies to communicate: “Social networking sites can aid adaptation through: 1) facilitating knowledge exchange, 2) alleviating apprehension, and 3) enabling socialization and building community” (Ryan, Magro, & Sharp, 2011, p. 1).

### **Saudi Arabian Students Studying in the United States**

There are a lack of studies on the use of technologies and communication methods concerning Saudi Arabian students studying in the United States. The existing studies examine educational issues and learning English as a second language. The majority of the studies were conducted in the 1980s and early 1990s (Alhazmi & Nyland, 2010). There is good reason for the lack of studies performed. There were only 3,035 Saudi Arabian students studying in the United States in the 2004/2005 academic year, one year prior to the start of the King Abdullah scholarship program. Currently there are approximately 45,000 Saudi Arabian students studying in the United States (Education, 2013a).

The many thousands of Saudi Arabian students studying in the United States can attribute their opportunity to study abroad to the King Abdullah scholarship program, the program's mission is:

King Abdullah Foreign Scholarship Program provides the means to [the] best world universities to pursue studies that lead to degrees (bachelors, masters and doctorate) and medical fellowships. Academic disciplines and scholarships are selected on the needs of government ministries, national corporations and the private sector. This selection aims to fulfill the requirements of work markets across the kingdom in regions, universities and industrial cities. The Program is commissioned with qualifying Saudi youth to take an active role in development in all fields in government and private sectors. Mission to actively develop and qualify Saudi human resource to be:

1. World-competitive in the work market and academic research,
2. High caliber base in Saudi universities, public and private sectors. (King Abdullah Scholarships Program, 2013)

The Saudi Arabian Cultural Mission (SACM) coordinates the King Abdullah scholarship program. The mission of SACM is to:

Implement Saudi national educational and training policies to provide our country with qualified individuals capable of achieving the country's goals of progress and development. We strive to provide our students with the best possible educational opportunities at the best educational institutions in the U.S.A. We support our students academically and financially so that they may concentrate on achieving their academic goals. We also collect and disseminate

information that reflects Saudi culture, tradition, and heritage through our active participation in academic, cultural, and social activities. (SACM, 2013)

The program has grown and evolved to encompass the goals of the mission. The number of students has grown to approximately 45,000 in the United States alone. As with other international students, Saudi Arabian students studying in the United States use smartphones since it is so popular and affordable. There are no studies about the use of smartphones among Saudi Arabian students studying in the United States to the extent of the researcher's knowledge.

A major study that truly encompasses the reality of Saudi Arabian students studying in the United States is "Cultural Impacts on Saudi Students at Mid-Western American University," conducted by Razek and Coyner in 2013. The ever-increasing number of Saudi students attending American universities and colleges warranted an investigation that went beyond the normal look at cultural beliefs. This study delved into different issues such as language difficulties, adjustment problems, cultural engagement and the lack of academic achievement. According to this study, Saudi Arabian students face many challenges, the most frequent being cultural challenges. This is due to originating from drastically different principles and higher education systems. The study findings revealed there are several consequences due to the high number of Saudi students concentrated at particular universities. The authors observed a cultural construct that included issues with cultural transition, socialization and lack of academic success. Due to deep social, cultural, political, academic and language barriers, the study showed in order for Saudi students to expand their learning, they needed a lot of encouragement to socialize outside of their native peer group. They found many reasons that Saudi Arabian students did not participate socially in any activities outside of their peer group. They held deep misconceptions about the ethical, moral and dietary aspects of American society. The students themselves



expressed several reasons for why they limited themselves socially: their religious differences, gender restrictions, dietary restrictions and feelings of being alienated.

In addition, the study showed that Saudi Arabian students' degree of connection to their native peers actually hinders their ability to socialize and create friendships outside of their immediate Saudi Arabian group. They hold a collectivist viewpoint of their existence, they see themselves as a group not as individuals, and therefore they must act and live in a well-defined manner that represents the country and religion as a whole. Because of this they are very apt to help each other no matter the situation. It is their belief to be responsible to serve and support their fellow countrymen. They usually work with incoming students to orient them as what to expect and how to go about maneuvering when they arrive in the United States. Students already studying in the United States claim because there are so many Saudi students on campus, they prefer to associate with them because it is easier to communicate, it is more comfortable and they have similar things to talk about. This type of thinking and living is a positive aspect of Saudi culture but it negatively affects the possibility of creating friendships and experiencing American culture (Razek & Coyner, 2013).

Due to the lack of similar studies, the researcher believes more in-depth studies need to be conducted in order to help not only Saudi Arabian students studying in the United States but the colleges and universities that host them throughout their education.

### **Smartphone Popularity in Saudi Arabia**

Prior to examining the use of smartphones among the Saudi Arabian students in the United States, it is beneficial to see the level of the smartphone penetration in Saudi Arabia. Google, in partnership with Ipsos MediaCT (2013), conducted the national representative study (Our Mobile Planet; Understanding the Mobile Consumers - Saudi Arabia). A total of 500 Saudi

Arabian online adults (18-64 years of age) were reviewed. The results showed that Saudi Arabia has the third highest smartphone penetration in the world (72.8 %) after United Arab Emirates and South Korea.

In addition, the results revealed that 50% of Saudi Arabian smartphone users indicated that they spent more time online with their smartphones in the last six months and 57% never leave home without their smartphones. The study examined the uses of smartphones: 80% indicated that they use their smartphone for communications, 69% for keeping up with news and 88% for entertainment. It showed that 73% of users browsed the Internet and 72% accessed emails using their smartphones. The study considered 70% of Saudi Arabian smartphone users to be frequent social networkers; 93% have visited social networks and 74% visit a social networking site at least once a day. In the matter of using smartphones for accessing news, the findings showed that 61% of users read news on newspaper or magazine sites, 57% accessed websites and blogs, and 70% accessed video sharing websites.

The above study is of importance as it builds a base of knowledge about the smartphone usage of Saudi Arabians while they are in their country. It is an assumption of the researcher that people continue to use technology to which they have become accustomed no matter what country they travel to or reside. The results of the Google study were also used as a comparative to this current study.

### **Cultural Adaption and Technology Usage**

Scarpino and Alshif (2013) conducted a study to demonstrate how social networking has impacted Saudi Arabian students living in the United States and how they use social networking sites to close the gap of time and space beyond their homeland. The study reflects attitude among the growing number of Saudi Arabian students under the King Abdullah scholarship program. In

general, Saudi Arabian people are known to have strong associations with their families and friends across generations; this is known to be a characteristic of the Saudi culture (Scarpino & Alshif, 2013). As a result, the authors found that Saudi Arabian students studying in the United States are using smartphones and social media to keep up with their friends and families while living abroad.

The results showed that social networking sites have positive influences on Saudi Arabian students' lives and add some benefits such as communication with family and friends, exchanging cultures, strengthening social relationships despite the distances, and feeling geographically closer to their homeland. It is so important to Saudi Arabian students to be connected with friends and family.

The Scarpino and Alshif (2013) study showed that 72.3% of respondents spend more than ten hours online per week; most of them have created their personal profile on different social networking sites and messaging applications; Facebook (96.2%), WhatsApp (84.1%), YouTube (59.8%) and Twitter (48.5%). Three out of five respondents belong or participate in up to ten community groups using the social networking site and messaging applications. The main purpose of using social networks was indicated to be for keeping in touch with friends and family (91.7%). Sharing feedback about news and current events is the main purpose for 66.7% of respondents, sharing photos, videos and music (51.5%), with only 28.8% of respondents stating that meeting new people is their main purpose of using social networks. This explains why 66.4% of respondents do not accept unknown people as a "friend" in their social network. That is also supported by their purpose of using social network which is keeping in touch with friends and family (91.7%). In addition, 90.4% said that social networking sites promoted relationship with their friends and families. The results indicated that 72.1% of respondents think

that using and being active in social networking sites have “somewhat affected” their “face-to-face” communications and individual connections with others.

In conclusion this study is the only relatable one of its type conducted after the inception of the King Abdullah scholarship program; therefore it is a wealth of information about Saudi Arabian students studying in the United States. The findings are of importance to the research, providing a better understanding of how Saudi students are utilizing technology to stay connected to the family, friends and community they left behind.

### **Conclusion**

In conclusion, the Uses and Gratifications theory provides excellent guidance to examine the smartphone use of Saudi Arabian student studying in the United States. It is necessary for human beings to communicate and to exchange ideas between individuals and groups in a society. People share information and news about themselves and their communities. They started using traditional media such as newspapers, magazines, radio, and television to communicate news more efficiently to mass audience. As technology develops, people also use it to share their ideas, creating a new aspect of news. Smartphones emerged as an important contemporary source for news delivery and social networking and communications. College students gravitate towards the newest ways of getting and sharing news and staying connected with their friends, family, and different communities. Saudi Arabian students are no different from other international students in that they use smartphones to be informed and stay connected as they study in the United States.

## CHAPTER 3

### METHODOLOGY

This quantitative study was designed to investigate the use of smartphones as a news resource by Saudi Arabian students studying in the United States. The study is based upon Uses and Gratifications theory. There are several related aspects of this topic that are addressed. A number of survey questions delved into the respondents' ancillary areas of smartphone usage such as: news interests, use of smartphone as a news resource attraction, feelings of being overwhelmed, connectivity with different communities, sharing news, the use of Arab versus Western media, involvement in American culture and pertinent demographic patterns.

In media research both quantitative and qualitative methodologies are used (Berger, 2000; Buddenbaum & Novak, 2001; Creswell, 2009; Jensen, 2002; Ward & Hansen, 1987). In quantitative studies, especially in survey studies, the purpose of the study is shaped by research questions and hypotheses (Creswell, 2009). Quantitative research in the media and communication is described by numbers, magnitude, and measurement (Berger, 2000) to apply statistical analysis for testing hypotheses (Buddenbaum & Novak, 2001). The purpose of the study is to look for differences and patterns among the sample subjects. Therefore, the quantitative approach helped the researcher to test the hypotheses by analyzing the collected data statistically.

This study used the survey method. Survey is a method of collecting and analyzing social, cultural, psychological, economic, technical and other categories of data (Berger, 2000). Creswell (2009) defines the survey method as “a quantitative or numeric description of trends, attitudes, or opinions of a population by studying a sample of that population. From sample results, the researcher generalizes or makes claims about the population” (p. 153). Surveys are

used to determine many aspects of peoples' lives; what do people know, think, own and do? What have they done and what they are planning to do? What are their attitudes, tastes, prejudices, beliefs, values (Berger, 2000)? The questionnaire method was used in this study due to the large number of the population and the targeted sample.

### **Reliability and Validity**

Reliability and validity are of the utmost importance when designing a survey instrument, in order for the survey to be valid it must be reliable (Buddenbaum & Novak, 2001). The questionnaire was developed from a pilot study that the researcher conducted in 2011. To ensure the validity of the instrument, it was expert reviewed by faculty members of the Department of Communications Media at Indiana university of Pennsylvania (IUP) and peer reviewed by a Ph.D. student. Comments and suggestions assisted in the determination of the value and wording of questions in the development and finalization of a valid questionnaire. The experts and peer reviewers read the first draft of the questionnaire that was used in the pilot study and subsequent editions. Based upon their suggestions some questions were developed and changed. For instance, the question about the general uses of smartphone was not clear in the first draft. A faculty reviewer suggested expanding the question to ask respondents whether they use Arab media or Western media. He also suggested the two questions about which language they use to reading the news and to what extent they think the use of smartphone has an impact on their involvement in American culture. They guided the clarifications of the survey questions. A faculty reviewer provided extensive guidance based on her experience and expertise in teaching Saudi Arabian students at the university level at IUP and English as a Second Language at the university's American Language Institute. Her knowledge of communications as well as cultural aspects of Saudi Arabian students was integral in the development of the survey questionnaire.

The peer reviewer is an expert in Qualtrics; she helped in designing the online survey in Qualtrics. The questionnaire was approved by the dissertation committee upon the defense of the proposal.

In addition, the researcher enhanced clarification by translating the survey into Arabic to avoid language issues, especially with ESL students. To ensure reliability of the survey instrument, A faculty reviewer suggested distributing it to a small sample of Saudi Arabian students studying in the United States from different genders, age and educational levels. A sample of ten students completed the survey in November 2013. Upon their completion the researcher consulted with each participant. The researcher inquired about the flow of questions, clarity of questions, and whether it captured their attention. They also were asked if they understood the focus of the survey, and if they perceived the topic as important, current, and relatable. The researcher found that the participants were excited and interested in the topic and found it pertinent. They provided useful comments that were taken into consideration. After this process the updated survey was redistributed to the same sample group. The results indicated a high consistency from both surveys. Furthermore, the validity was reinforced by the large number of responses, 789 respondents completed the survey.

### **Pilot Study**

The purpose of the pilot study was to explore the patterns of the use of smartphones and the preferred formats the students use to get news. A survey was conducted to investigate smartphone use among the population of Saudi students at IUP (See appendix A). Of the 100 students asked to take the survey, 52 responded and 47 completed the survey. Out of the 47 respondents, 36 (64%) were males, and 18 (36%) were females. Of these students, 73% were between 18 and 30 years old with 40% being graduate students and 28% undergraduates. The

ESL students were 32% of the respondents. This study showed that smartphones are extremely popular among the Saudi students; 87% have one and 89% of smartphone owners utilize it to get news.

The results of the study show three quarters of Saudi students get more news since they began using the smartphones, and they have become more interested in news too. More than half of them check news using their smartphones first thing in the morning, and 78% agree that it is their main source of news compared to laptop (57%), TV (34%), newspapers (23%), and radio (11%).

The use of smartphones has impacted the Saudi students' social lives in the United States. Three out of four students responded that they now feel more connected with the university community, their Saudi community in the United States, and their Saudi community in Saudi Arabia. Moreover, 59% of respondents said they would feel isolated without using their smartphones. 75% of respondents said that they share more news since they began using smartphones. They share news through Facebook, Twitter, Emails, and YouTube.

### **Changes to Current Study from Pilot Study**

The pilot study was an avenue to the current study. It allowed the researcher to expand thoughts and ideas about the subject matter. In order to increase the reliability of the current study, the researcher had experts and peer consultations of the pilot study survey questions. Through these consultations the researcher expanded and developed the questions to enable gathered more critical data that could support the research questions and hypotheses. Questions were expounded upon about using Arab media versus Western media while asking about types of news in which participants are interested. In addition, the focus of the survey was honed to specific inquiries about uses and gratifications of the usage of smartphones, participants' news



sources, language, and news sharing patterns. Cultural aspects were also added to investigate the impact of the use of smartphone in adapting to American culture.

### **Sample**

The population of this study was Saudi Arabian students studying in the United States (undergraduate, graduate, medical fellowship and English as second language learners). The study surveyed Saudi Arabian students studying in the United States from both genders. The Saudi Arabian Cultural Mission communicates with Saudi Arabian students studying in the United States via Facebook and Twitter to provide them with updates or other information. There are approximately 45,000 Saudi Arabian students in the United States (sacm.org). The SACM Facebook account has 25,299 “likes” and the Twitter account has 28,764 followers. These numbers indicate that the majority of Saudi Arabian students are being reached. These formats indicate a non-random convenient sample.

The survey was conducted through Qualtrics online survey software (See appendix B). The announcement that invited participation in this survey was distributed by the SACM which agreed to send an announcement and survey link through Facebook and Twitter asking students to take the survey. A copy of the email indicating their approval is attached (See appendix C).

The sample target was 500 participants. A resounding 789 respondents completed the survey. The additional completed surveys received provided more validity to the results.

### **Procedures**

The researcher developed the survey from the pilot study. The first step in the distribution of the survey was to ask the Saudi Arabian Cultural Mission to provide access via their official Facebook and Twitter accounts to reach the majority of Saudi Arabian students studying in the United States (See appendix D). SACM provided their support and cooperated with the

Communication Media Department of Indiana University of Pennsylvania, making it possible to reach the targeted sample.

Students were provided the purpose of the survey and a brief statement of informed consent on the Facebook page (See appendix E) and a brief tweet with the survey link via Twitter. This allowed students the opportunity to learn about the survey prior to making a decision about participating. In the announcement of the survey only Arabic was used; the survey was written in English and Arabic. SACM sent the announcement including the Qualtrics survey link (see appendixes F and G). The announcement included the researcher's contact information for students that may have any questions prior to completing the survey.

The announcement contained the link to the survey. Participation was optional. There was no way to identify who did and did not respond. There were no repercussions for not participating. The survey was completely anonymous as participants were not asked for personal identifying information (see appendix H).

At any point during the survey, participants were able to choose not to complete it in its entirety; there were no repercussions for non-completion. 1,299 potential respondents accessed the survey but only 789 respondents who met the criteria of the target audience completed the survey and were included in the data for analysis. Confidentiality and anonymity of the participants is guaranteed. All collected data was saved in a secure folder on a server of IUP.

### **Data Analysis**

The survey was designed to be simple and to provide the data the researcher sought. The survey consisted of 21 questions including several types of queries: Likert scale, open-ended, range and multiple choices. These questions were constructed to find differences and patterns

among the data and to provide results that could be used to answer the research questions and support the hypotheses.

The Qualtrics survey was designed to encompass several different types of questions. The specific way the questions were asked was based upon the expected analysis of data. It was the researcher's intention to have a seamless flow in question topics from using smartphones to access news to the cultural effects of usage. The questionnaire used Likert and 1 to 10 scales, which produced ordinal data; and yes/no and multiple choice questions, which produced nominal data; because of this combination of questions the data was easily analyzed. The collected data was extracted from Qualtrics into the Statistical Package for the Social Sciences (SPSS) for data analysis. The researcher applied several statistical analyses to interpret the data. Descriptive statistics were used to show the results. The Kolmogorov-Smirnov test (KS-test) is used to analyze the ordinal data. Spearman rho statistical analysis was used to determine either patterns or randomness of the use of smartphones.

Inferential statistics were used to statistically establish the association or correlation between the independent variables of age, gender, being an ESL student, educational levels, and the dependent variables. These dependent variables were: the frequency of checking news, sharing news, feeling overwhelmed by news, and the level of the involvement in American culture. Further explanation and details will be presented in Chapter Four.

## CHAPTER 4

### DATA ANALYSIS

This study examined Saudi Arabian students' use of smartphones to access news while studying in the United States. This investigation used a non-probability convenience and volunteer sample of 789 Saudi Arabian students studying in the United States. The survey was distributed via the Saudi Arabian Cultural Mission (SACM) to all students who follow the SACM Twitter account and all students who "like" the SACM's Facebook page. The Facebook page has 25,299 "likes" and its Twitter has 28,764 followers. The data was collected in December 2013. The Qualtrics survey was distributed to all aforementioned students at every level of study; it was available to only those students who were 18 years old and over.

A total of 1,299 respondents accessed the Qualtrics survey; 848 of them completed the survey. A critical exclusionary identifying question was asked in order for them to proceed to the survey. It was designed to automatically exclude those who did not identify as Saudi Arabian students studying in the United States. A total of 789 (93%) respondents were the target audience and met the criteria to complete the survey. A frequency of 59 (7%) were excluded immediately based upon their answer to this initial question.

This chapter is divided into three sections. The first section illustrates the demographic information of the study sample. The second section, descriptive statistics, provides an in-depth overview of seven of the eight research questions. Section three examines the differences and correlations that existed in the data. The data were analyzed to determine whether the 15 hypotheses that derived from the research question number eight are supported.

## Demographic Distribution

The demographic inquiry asked participants their age, gender, whether they are a current ESL student and their intended education level. The majority of respondents were males with a frequency of 589 (75.2%); females responded with a frequency of 194 (24.8%) (See table 2). This disparity between male and female respondents has been documented in previous studies. The literature review and previous studies have shown that there is a higher percentage of males participating in surveys distributed in the United States (Alanazi, 2012; Scarpino & Alshif, 2013). The researcher sought out specific demographic information about Saudi Arabian students studying in the United States from the Saudi Arabian Cultural Mission. The researcher was unable to obtain this information as SACM does not publish this information.

Table 2

### *Demographic Gender*

Gender	Frequency	Percent	Cumulative Percent
Male	589	75.2	75.2
Female	194	24.8	100.0
Total	783	100.0	

The average age group of respondents fell in the 18 to 25 year old range with 387 (49.3%) respondents, followed by the 26 to 30 age range with 285 (36.3%), the 31 to 35 age range 82 (10.4%), the 36 to 40 age range 22 (2.8%) and the above 40 range 9 (1.1%) (See table 3). These results indicate that the mean age of respondents is 28.5 (M: 1.7, SD: 0.9). The average age group results appear to be similar to those in previous studies (Alanazi, 2012; Scarpino & Alshif, 2013), which indicate that the majority of Saudi Arabian students studying in the United States are younger than 30 years old.

Table 3

*Demographic Age*

Age groups	Frequency	Percent	Cumulative Percent
18 - 25	387	49.3	49.3
26- 30	285	36.3	85.6
31-35	82	10.4	96.1
36 - 40	22	2.8	98.9
Above 40	9	1.1	100.0
Total	785	100.0	

*Note. Mean: 1.7, SD: .0.9*

Some Saudi Arabian students need to study English as a second language (ESL) prior to starting their intended education level. The results indicate that 246 respondents (31.2%) are ESL students while 543 respondents (68.8%) are currently in their intended education level (See table 4).

Table 4

*Studying as an ESL Student*

ESL Status	Frequency	Percent	Cumulative Percent
Current ESL student	246	31.2	31.2
Non- ESL student	543	68.8	100.0
Total	789	100.0	

The respondents were asked about their intended education level while studying in the United States. The majority of respondents with a frequency of 376 (47.7%) identified as seeking a bachelor's degree, 293 (37.1%) are seeking a master's degree, 107 (13.6%) are seeking a doctorate, and 13 (1.6%) are in a medical fellowship (See table 5).

Table 5

*Intended Level of Education*

Level of Education	Frequency	Percent	Cumulative Percent
Bachelor's	376	47.7	47.7
Master's	293	37.1	84.8
Ph.D.	107	13.6	98.4
Medical fellowships	13	1.6	100.0
Total	789	100.0	

**Descriptive Statistics**

Descriptive statistics such as percent, mean, and Standard Deviation (SD) were used by the researcher to interpret the results of the following seven research questions:

**RQ1: What are the news resources of Saudi students studying in the Unites States?**

Respondents were asked in question two of the survey about their preferred news sources. Based upon their answers the researcher saw a possible pattern starting to emerge in the data. It was clearly indicated that participants preferred to use their smartphones, laptops and televisions to access news. Results indicate respondents use new media and traditional media to access news (See table 6). The most utilized new media source was smartphones at a frequency of 659 (83.5 %) followed by laptops at a frequency of 499 (63.2%), desktops at a frequency of 107 (13.6%), portable devices such as iPad at a frequency of 171 (21.7%), iPods at a frequency of 18 (2.3%), and E-readers at a frequency of 15 (1.9%). Further results show that the respondents still utilize traditional media sources such as television at a frequency of 310 (39.3%), newspaper at a frequency of 126 (16.0%) and radio at a frequency of 107 (13.6%). There are 39 (4.9%) respondents indicated they receive news from other sources such as social media sites, tribe members, families, and friends. Overall, the top three choices include new technology with smartphones and laptops being most popular and television, a traditional medium, third.

Table 6

*News Sources*

News sources		Frequency	Percent
Traditional Media	Television	310	39.3%
	Newspaper	126	16.0%
	Radio	107	13.6%
New Media	Smartphone	659	83.5%
	Laptop	499	63.2%
	iPad	171	21.7%
	Desktop	107	13.6%
	iPod	18	2.3%
	E-reader	15	1.9%
Other		39	4.9%
N		789	100%

Participants were further excluded based upon their answer to question number three in the survey: Do you use a smartphone? If participants denied using a smartphone they were automatically redirected to the demographic information questions. Upon completion of this section, they were excluded from answering the remaining questions which are related only to smartphone users. This ensured the all data collected from each participant were found to be valid and useful to the overall data analysis and results. A frequency of 776 (98.4%) respondents stated that they use a smartphone, 13 (1.2%) stated they do not use one (See table 7). This result shows that smartphones have become the norm of mobile phones.



Table 7

*Using a Smartphone*

Using smartphone	Frequency	Percent	Cumulative Percent
Yes	776	98.4	98.4
No	13	1.6	100.0
Total	789	100.0	

**RQ2: What do Saudi Arabian students studying in the United States use their smartphones for?**

People around the world use their smartphones for a variety of reasons, not just for calling and text messaging (Matanhelia, 2010; Oksman, 2010; Scarpino & Alshif, 2013). Respondents were asked what they utilize their smartphones for. A total of 776 respondents answered this question (See table 8). The results show that respondents are truly using their smartphones for many aspects of their lives. Not surprisingly most respondents, 727 (93.7%), use their smartphone to access social networking sites (Facebook, Twitter, YouTube, and similar social networking sites). Interpersonal communication methods such as phone calls and text messaging still rank quite high, coming in at the second highest usage rate with 716 (92.3%) respondents. Seeking information is the third prominent usage of smartphones with 673 (86.7%) respondents. Also 644 (83.0%) respondents use their smartphones for unspecified applications. A frequency of 602 (77.6%) respondents stated that they use mobile messaging applications such as WhatsApp, BB messenger, Tango, and similar apps. Entertainment is the purpose for 516 (66.5%) respondents who use their smartphones for music, video games, and movies. More than half of respondents (53.6%) use smartphones for shopping. The high usage rate of smartphones for a variety of needs in their lives indicates to the researcher that respondents are receiving a benefit from their use. This suggests they are experiencing a high level of gratifications.

Table 8

*Smartphone Usage*

Purposes of using smartphones	Frequency	Percent
Interpersonal communication (Calls, text messaging)	716	92.3%
Mobile messaging applications	602	77.6%
The Internet (seeking for information)	673	86.7%
Smartphone different applications	644	83.0%
Shopping	416	53.6%
Entertainment (Music, video games, Movies)	516	66.5%
Social sites (Facebook, Twitter, YouTube, and similar sites)	727	93.7%
Total	767	100%

**RQ3: To what extent are Saudi Arabian students studying in the United States comfortable with utilizing smartphones to access news of their choice?**

This question directly relates to the critical information about student uses of smartphones as a news resource and the gratifications they may experience. There were many survey questions asked in order to answer this research question. Research question number one asked respondents about their news sources. The most utilized news source was smartphones at a frequency of 659 (83.5%) as shown in table 6.

Many aspects of usage are explored to further understanding to what extent respondents are comfortable utilizing smartphones to access news. The respondents were asked a series of questions about their interest in news, how often they use smartphones to get news, whether they consider smartphones a main news resource, and the frequency of checking news in 24-hour period.

## Keeping up with the News

To have respondents begin thinking about their curiosity and news gathering patterns, they were asked how interested they are in keeping up with news. As seen in table 9, the largest proportion of respondents said they were interested in keeping up with the news. Roughly equal proportions were either very interested (24.4%) or less interested (26.3%). The mean for the respondents was 2.1 with an SD of 0.8, which confirms that the typical response was in the interested range. This suggests there is a good level of interest in keeping up with the news with roughly equal numbers above and below this middle ground.

Table 9

### *Interest in News*

Value	Interest level	Frequency	Percent	Cumulative Percent
1	Very interested	189	24.4	24.4
2	Interested	355	45.7	70.1
3	Less interested	204	26.3	96.4
4	Not interested	28	3.6	100.0
Total		776	100.0	

*Note. Mean: 2.1, SD: 0.8*

## Using the Smartphone to Get News

To further qualify, the respondents were asked if they use their smartphone to get news. The majority of respondents (72.8%) stated that they always or often access news using their smartphones (See table 10). The frequency of use is rated as often with a mean of 2.1 and SD of 0.8. Furthermore, the results show a cumulative 97.9% of respondents use smartphones to get news at some level with 72.8% saying often or always. Only 16 (2.1%) respondents claimed that they never used their smartphones to get any news. Those respondents were excluded and redirected to demographic questions. The findings show that using smartphones as news resource among respondents is an accepted conclusion.

Table 10

*Using Smartphone to Get News*

Value	Using smartphone to get news	Frequency	Percent	Cumulative Percent
1	Always	294	37.9	37.9
2	Often	271	34.9	72.8
3	Sometimes	151	19.5	92.3
4	Rarely	44	5.7	97.9
5	Never	16	2.1	100.0
Total		776	100.0	

*Note. Mean: 2.0, SD: 1.0*

**Smartphone as the Main Source of News**

The researcher further posed an additional rich data-seeking question about using the smartphone as a main news source. The mean agreement level is 2.8 with SD 0.9 which lies mostly in the agreement level (See table 11). The results indicate that 465 (62.0%) respondents agree or strongly agree that a smartphone is their main source for news. These results add additional support to the assumption of using smartphones as a news resource among the respondents.

Table 11

*Smartphone as the Main Source of News*

Value	Agreement level	Frequency	Percent	Cumulative Percent
1	Strongly Disagree	59	7.9	7.9
2	Disagree	226	30.1	38.0
3	Agree	285	38.0	76.0
4	Strongly Agree	180	24.0	100.0
Total		750	100.0	

*Note. Mean: 2.8, SD: 0.9*

## Using Smartphones to Check News in 24-Hour Period

The previous results indicated that the majority of respondents consider smartphones as their main news resource and regularly use it to get news. To further validate their responses, they were additionally asked how many times they use their smartphones to check news in a 24-hour period (See table 12). Two out of every five respondents check news one to five times while the other three fifths said that they check news more than six times. The results show that 45 (15%) respondents check news more than 25 times in a 24-hour period. The results show a habit of checking news frequently.

Table 12

### *Using Smartphones to Check News in 24-Hour Period*

Value	Checking times	Frequency	Percent	Cumulative Percent
1	1-5 times	302	39.7	39.7
2	6-10 times	129	17.0	56.7
3	11-15 times	87	11.4	68.2
4	16-20 times	83	10.9	79.1
5	21-25 times	45	5.9	85.0
6	More than 25 times	114	15.0	100.0
Total		760	100.0	

*Note. Mean: 2.7, SD: 1.8*

## Gratifications of Using Smartphones to Get News

To investigate the potential gratifications of using smartphones to get news, respondents were asked the following question: What would attract you to use your smartphone to get news? The survey question provided them with five statements on the ease of getting news, sources of news, the availability of Arabic news, relevance of news, and the option to comment or share opinions. These statements represent the potential attractions of using smartphones to get news. The researcher assumes that a high agreement with any statement indicates that a level of

gratification exists. The level of agreement is based on Likert scale of four agreement degrees:

(1) strongly disagree, (2) disagree, (3) agree, and (4) strongly agree (See table 13).

Table 13

*Gratifications of Using Smartphone to Get News*

Gratifications	Strongly Disagree (1)	Disagree (2)	Agree (3)	Strongly Agree (4)	Total	Mean	SD
It is easy to get news any time	20 (2.6%)	33 (4.3%)	284 (37.4%)	423 (55.7%)	760 (100%)	3.5	0.7
I find many different sources of news	22 (2.9%)	52 (6.8%)	420 (55.3%)	266 (35.0%)	760 (100%)	3.2	0.7
The availability of Arabic news	35 (4.6%)	118 (15.5%)	403 (53.0%)	204 (26.8%)	760 (100%)	3.0	0.8
The news is current and updated	22 (2.9%)	69 (9.1%)	365 (48.0%)	304 (40.0%)	760 (100%)	3.3	0.7
I can interact with news by commenting and sharing my opinion	69 (9.1%)	154 (20.3%)	340 (44.7%)	197 (25.9%)	760 (100%)	2.9	0.9

**Gratification of the Ease of Getting News Anytime**

The respondents were asked whether they are attracted to the ease of use of accessing news via smartphones. . If they were, this would suggest an element of gratification for the respondents. Results showed that 707 (93.1%) respondents agree (N: 284, 37.4%) or strongly agree (N: 423, 55.7%) that they are attracted to use their smartphones to get news because it is easy at any time. Only 53 (6.9%) respondents disagree (N: 33, 4.3%) or strongly disagree (N: 20, 2.6%) with this statement (see table 13). The researcher considers the high level of 93.1% of respondents agreeing that the ease of use attracted them to use smartphones to access news as a clear indication of gratification.

### **Gratification of Finding Many Different Sources of News**

The researcher assumed that the ability to find many different sources of news is another indication of the gratification of using smartphones to get news. The findings indicated that 686 (90.3%) respondents agree (N: 420, 55.3%) or strongly agree (N: 266, 35.0%) they are attracted to use their smartphones to get news because they find many different sources of news. Only 74 (9.7%) respondents disagree (N: 22, 6.8%) or strongly disagree (N: 22, 2.9%). These findings point to a clear indication of gratification with accessing many different news sources.

### **Gratification of the Availability of Arabic News**

The attractiveness of the easy availability of Arabic news is another potential gratification that could encourage smartphone users to access news. Four out of five respondents agreeing (N: 403, 53.0%) or strongly agreeing (N: 204, 26.8%) that the availability of Arabic news attracted them to use smartphone to access new (see table 13). These findings are an indication of the level of gratification respondents are feeling with the availability of Arabic news.

### **Gratification of Getting Current and Updated News**

The immediacy of current news and updated information is a potential gratification especially with the popularity of smartphones. The findings show getting current and updated news attracted 669 (88.0%) of respondents to use their smartphones to get news. This high percentage of respondents is seen as an indication of gratification by the researcher.

### **Gratification of the Interactivity with News**

The result showed relatively high agreement with 537 (70.7%) of respondents agreeing (N: 340, 44.7%) or strongly agreeing (N: 197, 25.9%) that they are attracted to use their smartphones to get news because they can interact with the news by commenting and sharing their opinions (see table 13). The high level of agreement by respondents that interactivity with news is attracting them to access news indicates this is a gratification to the respondents.

## News Consumption

The researcher proposed five statements that delved into the possible actions and feelings that developed with the use of smartphones to access news. These provide another way to explore gratifications. The possible actions were represented in three statements about being more interested in news since adopting the smartphones, getting more news, and using smartphones to check news before going to sleep and after waking up in the morning. The possible feelings were represented in the two statements about feeling overwhelmed by the amount of news consumed since adopting the smartphone, and feeling isolated when not carrying smartphones. The Likert scale was used to measure the agreement levels as follows: (1) strongly disagree, (2) disagree, (3) agree, and (4) strongly agree (See table 14).

Table 14

### *News Consumption using Smartphones*

News Consumption	Strongly Disagree (1)	Disagree (2)	Agree (3)	Strongly Agree (4)	Total	Mean	SD
I'm interested in news more since adopting smartphone	83 (11.1%)	254 (33.9%)	269 (35.9%)	144 (19.2%)	750 (100%)	2.6	0.9
I'm getting more news since adopting the smartphone	20 (2.7%)	90 (12.0%)	366 (48.9%)	273 (36.4%)	749 (100%)	3.2	0.7
I use my smartphone to check news before going to sleep and first thing in the morning	71 (9.4%)	168 (22.3%)	288 (38.2%)	227 (30.1%)	754 (100%)	2.9	0.8
I feel overwhelmed by the amount of news I am consuming since adopting the smartphone	29 (3.8%)	242 (32.1%)	327 (43.3%)	157 (20.8%)	755 (100%)	2.8	0.9
I feel isolated if I am without my smartphone	36 (4.8%)	88 (11.7%)	220 (29.3%)	407 (54.2%)	751 (100%)	3.3	0.9



## **Interest in News**

As seen in table 14, the results show that respondents have different agreement levels with the following statement: “I’m interested in news more since adopting the smartphone.” The respondents split into two groups; 55.1% of respondents agree or strongly agree that their interest in news has increased since adopting smartphones. This result provides a sign of the smartphone effectiveness in promoting more interest in as over half agree with the statement. In contrast, 44.9% of the respondents disagreed.

## **Getting More News**

A large proportion of the respondents (85.3%) agrees or strongly agrees with the statement: “I’m getting more news since adopting the smartphone.” This result could be related to the availability of many different sources of news.

## **Checking News at Morning and Before Sleep**

Two out of three respondents (68.3%) agree or strongly agree with the following statement: “I use my smartphone to check news before going to sleep and first thing in the morning.” This result supports previous results that show habit of checking news frequently.

## **Feeling Overwhelmed by News**

From the previous gratifications, the researcher proposed the following statement as a potential consequent negative feeling of using a smartphone to get news: “I feel overwhelmed by the amount of news I am consuming since adopting the smartphone.” The results show that 484 (64.1%) respondents feel overwhelmed by news. This result implies a sign of negative impact of using smartphones to get news.

### **Feeling Isolated Without the Smartphone**

As seen in table 14, the results indicate that respondents have a high agreement level (83.5%) with the following statement: “I feel isolated if I am without my smartphone.” This result could provide an indication of how respondents are attached to their smartphones to keep informed and connected to the world.

### **RQ4: What types of news are Saudi Arabian students studying in the United States seeking through their smartphones using Arab media and Western media?**

Smartphone users can choose to use different types of news resources from various media. In this study, respondents were asked what types of news they are interested in to get through their smartphones, specifically, what media they would access or access more to get news; Arab media or Western media. They were provided with the following choices: Arab media only with value (1), Arab media more than Western media (2), both of them equally (3), Western media more than Arab media (4), and Western media only (5) (See table 15).

Table 15

*Using Arab Media and Western Media to Get Different Types of News*

News Topic	Arab media only	Arab media more	Both of them equally	Western media more	Western media only	Total	Mean	SD
Politics	102 (13.4%)	207 (27.2%)	369 (48.6%)	66 (8.7%)	16 (2.1%)	760 (100%)	2.7	1.0
Domestic news about Saudi Arabia	304 (40.0%)	227 (29.9%)	199 (26.2%)	19 (2.5%)	11 (1.4%)	760 (100%)	2.0	1.0
Domestic news about the US	49 (6.4%)	83 (10.9%)	255 (33.6%)	187 (24.6%)	186 (24.5%)	760 (100%)	3.5	1.2
Social news	135 (17.8%)	142 (18.7%)	398 (52.4%)	53 (7.0%)	32 (4.2%)	760 (100%)	2.6	1.0
Arts and celebrities	104 (13.7%)	75 (9.9%)	383 (50.4%)	120 (15.7%)	78 (10.3%)	760 (100%)	3.0	1.2
Sports news	193 (25.4%)	127 (16.7%)	363 (47.8%)	47 (6.2%)	30 (3.9%)	760 (100%)	2.5	1.1
Health news	92 (12.1%)	88 (11.6%)	385 (50.7%)	112 (14.7%)	83 (10.9%)	760 (100%)	3.0	1.1
Education news	99 (13.0%)	105 (13.8%)	384 (50.5%)	119 (15.7%)	53 (7.0%)	760 (100%)	3.0	1.2
Business news	116 (15.3%)	120 (15.8%)	404 (53.2%)	77 (10.1%)	43 (5.7%)	760 (100%)	2.8	1.1

**Political News**

Table 15 shows that 369 (48.6%) respondents access Arab media and Western media equally to get political news, while only 82 (10.8%) access Western media more than Arab media (N: 66, 8.7%) or access Western media only to get political news (N: 16, 2.1%). There is a preference for Arab media among 102 (13.4%) respondents who access Arab media only and 207 (27.2%) respondents who access Arab media more than the Western media to get political news. The Arab Spring and related political issues that occurring in the Arab world could attract respondents to follow up with these events through Arab media more than the American media.

This is especially so with ESL students, 31.2% of respondents, who may not have sufficient English language skills.

### **Domestic Saudi Arabian News**

The results show that 304 (40.0%) respondents seek domestic news Saudi Arabia news using Arab media only through their smartphones. Accessing Arab media more than Western media for this purpose is the choice of 227 (29.9%) respondents. Only 11 (1.4%) respondents access Western media only, and 19 (2.5%) respondents who access Western media more than Arab media. It is expected that respondents are more dependent upon their domestic Arab media sources to access their domestic Arab news which is not available in Western media.

### **Domestic American News**

The results show that 49.1% of respondents access Western media only (N: 186, 24.5%) or access Western media more than Arab media to get domestic American news (N: 187, 24.6%). Also, 255 (33.6%) respondents access Arab media and Western media equally. These results indicate that the reliance upon Western media is more prevalent when seeking domestic American news. As with domestic Arab news, domestic American news is usually found from domestic American media. This is a possible positive aspect promoting involvement in American culture.

### **Social News**

As seen in table 15, one out of three respondents (36.5%) accesses Arab media only (N: 135, 17.8%) or Arab media more than the Western media to get social news (N: 42, 18.7%). In contrast, 11.2% of respondents access Western media only or Western media more than Arab media. The results show that Arab media is more preferable to get social news. This may be because they continue to be interested in Saudi Arabian social life which is not available in

Western media. This is a possible sign that could inhibit being more aware of or even adopting more elements of American culture.

### **Arts and Celebrity News**

When seeking arts and celebrity news there is not a discernible difference between the number of respondents using Arab media or Western media. A frequency of 383 (50.4%) respondents stated that they access Arab media and Western media equally to get arts and celebrities news. The preferences for Arab media versus Western media are equal among respondents (see table 15). This result seems unsurprising; it is the researcher observation and knowledge that watching movies and television shows through Western media are common in the Arab world.

### **Sports News**

The results show 193 (25.4%) respondents access Arab media only and 127 (16.7%) of respondents access Arab media more than the Western media to get sports news. A frequency of 363 (47.8%) respondents stated that they access Arab media and Western media equally to get sports news. These results show that two out of five respondents prefer to seek sport news through Arab media. Due to the committed nature of sports fans, it is not surprising to find a preference to get sports news from domestic Arab media. This may be another sign of the slow adoption of American culture.

### **Health News**

Similar to art and celebrity news, the results show that 385 (50.7%) respondents access Arab media and Western media equally to get health news (see table 15). In addition, 195 (25.6%) respondent use Western media only or more than Arab media. The results show no prevalent preference toward specific media when seeking health news. These results show that

respondents might be using Western media equally with Arab media because they want to be aware of the local American health issues that could affect them.

### **Education News**

The seeking of education news appears to be equivalent with 384 (50.5%) respondents accessing Arab and Western media equally to get education news. The respondents are evenly split respondents in preferring one media over the other to access education news. Similar to the results for health news and art and celebrity news no prevalent preference exists toward specific media when seeking education news. However, since that there is no preference towards Arab media, it is a sign that they are connected to academic American culture.

### **Business News**

A frequency of 77 (10.1%) respondents stated that they access Western media more than Arab media, and 43 (5.7%) respondents access Western media only to get business news. in contrast, 31.1% of respondents access Arab media only or more. The results show that the majority of respondents (53.2%) access Arab media and Western media equally to get business news. The results indicate less preference towards accessing business news through Western media via smartphones. The researcher assumes results would be different if the respondents were not all students. For example, this may not hold for Arab businessmen in America.

In conclusion, the results show that there is a preferable media choice for accessing various types of news towards Arab media. Arab media is preferred for respondents seeking political, social and business news. Not surprisingly, respondents preferred Arab media when seeking domestic news about Saudi Arabia. As expected, the only area Western media was preferred for seeking domestic American news. The results show that there were no preferable media when seeking news about health, education, art and celebrities. Overall, Arab media is

more preferred in general. There is an indication for some involvement in American culture due to the respondents using Western and Arab media. The involvement would be more strongly indicated if the respondents preferred to get news from Western media more than Arab media.

**RQ5: What level of connectivity do Saudi Arabian students studying in the United States keep with their local American community, local Saudi Arabian community and their national community in Saudi Arabia?**

To explore the connectivity level with different communities, participants were asked to what degree using smartphones for news help them connect with the local American community, the local Saudi Arabian community, and the national community in Saudi Arabia. The measurement is a scale from one to ten, one being least amount of connectivity and ten being the highest amount of connectivity. Using smartphones for news is most prevalent for respondents to connect with their local community in Saudi Arabia (M: 8.4) (See table 16). In accordance, the results also indicate a high prevalence of using smartphones to keep connected with the local Saudi community in the United States (M: 7.4). A lower level of connectivity was experienced toward the local American community in the United States (M: 5.7).

Table 16

*Using Smartphones for Connectivity to Different Communities*

Community	1	2	3	4	5	6	7	8	9	10	Total	Mean	SD
Local U.S.	91	53	73	53	107	57	68	90	58	110	760	5.7	3.0
Local S.A.	23	18	31	39	67	57	87	117	105	216	760	7.4	2.5
S.A.	13	9	16	26	48	28	46	84	108	382	760	8.4	2.3

## **RQ6: Do Saudi Arabian students studying in the United States share news via social media using their smartphones?**

The respondents were first asked to identify their agreement level to the following statement: “I'm sharing more news since adopting smartphones.” In addition they were asked how often they share news links via email and specific social networking sites: Twitter, Facebook, and YouTube.

### **Sharing More News**

The results show a high level of agreement with three out of four respondents (73.9%) agreeing (N: 410, 53.9%) or strongly agreeing (N: 152, 20.0%) that they share more news with others since adopting smartphones (See table 17). This result is not surprising; smartphone devices make sharing news easier with applications of news, emails, instant messengers, and social networking sites. Each news story is provided with options to share via email, Twitter, Facebook, and other sites.

Table 17

#### *Sharing More News since Adopting Smartphones*

Value	Agreement level	Frequency	Percent	Cumulative Percent
1	Strongly Disagree	67	8.8	8.8
2	Disagree	131	17.2	26.1
3	Agree	410	53.9	80.0
4	Strongly Agree	152	20.0	100.0
Total		760	100.0	

*Note. Mean: 2.9, SD: 0.8*

### **Sharing News Links via Email and Social Networking Sites**

Respondents were asked how often they share news links through email and specific social networking sites: Twitter, Facebook, and YouTube. They were provided with Likert scale measurement as follows: never, rarely, sometimes, often, and very often. The researcher



considered the sum of (rarely, sometimes, often, and very often) as a usage indicator (See table 18).

Table 18

*Sharing News Links via Email and Social Networking Sites*

Sharing Medium	Never (1)	Rarely (2)	Sometimes (3)	Often (4)	Very often (5)	Total	Mean	SD
Twitter	199 (26.2%)	150 (19.7%)	172 (22.6%)	126 (16.6%)	113 (14.9%)	760 (100%)	2.7	1.4
Facebook	112 (14.7%)	139 (18.3%)	212 (27.9%)	159 (20.9%)	138 (18.2%)	760 (100%)	3.1	1.3
YouTube	239 (31.4%)	97 (12.8%)	169 (22.2%)	104 (13.7%)	151 (19.9%)	760 (100%)	2.8	1.5
Email	244 (32.1%)	169 (22.2%)	123 (16.2%)	97 (12.8%)	127 (16.7%)	760 (100%)	2.6	1.5

## Twitter

When respondents were asked how often they share news links via Twitter, the results were mixed. Almost half said they rarely (19.7%) or never (26.2%) share news via Twitter. Less than a third said they shared news very often (14.9%) or often (16.6%). It is unclear why this is the case. One factor may be the variety of methods for sharing news that does not allow a particular site to dominate. These results show that at least 73.8% of respondents access Twitter through their smartphones while only half of them actively share news.

## Facebook

The results show that 39.1% of respondents share news via Facebook often (20.9%) or very often (18.2%) in contrast with 33% of respondents who never (14.7%) or rarely (18.3%) share news via Facebook. The results also show that at least 85.3% of respondents access Facebook through their smartphones; more than half of them do not actively share news.

## **YouTube**

Respondents were asked how often they share news links via YouTube using their smartphone. The results revealed that a third of them (33.6%) actively share news. Another third (31.4%) never share news through YouTube. The results show that at least 78.6% of respondents access YouTube through their smartphones, and half of them actively share news links.

## **Email**

Email is oftentimes used for sharing news. The results show that 29.5% of respondents indicated they share news links through emails very often (16.7%) or often (12.8%). Almost a third of respondents (32.1%) never share news links through email. while at least 77.9% of respondents access their email through their smartphones, less than half of them actively share news via email.

In conclusion, the results show that almost half of social networking site users actively share news. Moreover, the results revealed that Facebook is the most popular social networking site with at least 85.3% of respondents using it through their smartphones, followed by YouTube which is accessed by at least 78.6% of respondents. Twitter is least popular with at least 73.8% of respondents. The usage of Email through smartphones has a high popularity with at least 77.9% respondents.

## **RQ7: Do Saudi Arabian students studying in the United States perceive a cultural effect of using smartphones as a news resource?**

There are three survey questions related to the answer of this research question. The first question asked about the respondents' preferred language for reading news using their smartphones: English or Arabic. The second survey question identified their agreement level with the following statement: "I would be more interested in Domestic American news if my

only options were to seek news from traditional media sources.” Respondents were directly asked about their perception of the impact of using smartphones on their involvement in American culture in the third survey question. They were asked to identify their agreement level with the following statement: “I would be more involved in American culture if I did not use the smartphone.”

### **Preferred Language to Read News**

Respondents were asked in which language they prefer to read news using their smartphones. They were provided with a scale from one to ten, one for Arabic only and ten for English only. The results show that 94 (12.4%) respondents read news in Arabic only using their smartphones (See table 19). In contrast, 37 (4.9%) respondents read news in English only. The mean is 5.0 with a standard deviation of 2.3. The mode is five with 262 (34.5%) respondents. In addition, 70.9% of responses lie between level 3 and level 7. The results indicate the majority of respondents use both Arabic and English for reading news. The surprising proportion of respondents who read news in Arabic only could be explained by the number of ESL students who make up 31.2% of the sample. It is assumed that most of them lack a sufficient understanding of English which is needed to read news in English.

Table 19

*Preferred Language for Reading News*

	Frequency	Percent	Cumulative Percent
Arabic Only 1	94	12.4	12.4
2	22	2.9	15.3
3	58	7.6	22.9
4	82	10.8	33.7
5	262	34.5	68.2
6	79	10.4	78.6
7	58	7.6	86.2
8	41	5.4	91.6
9	27	3.6	95.1
English Only 10	37	4.9	100.0
Total	760	100.0	

*Note. Mean: 0.5, SD: 2.3*

**Interest in Domestic American News**

The results show that 233 (30.7%) respondents agree (N: 208, 27.4%) or strongly agree (N: 25, 3.3%) that they would be more interested in domestic American news if their only options were to seek news from traditional media sources. A frequency of 527 (69.3%) respondents disagree (N: 374, 49.2%) or strongly disagree (N: 153, 20.1%). It appears that respondents do not see an impact, or a noticeable impact, of new media on their interest level in domestic American news (See table 20).

Table 20

*More Interest in Domestic American News if Using Traditional Media Only*

Agreement level	Frequency	Percent	Cumulative Percent
Strongly Disagree	153	20.1	20.1
Disagree	374	49.2	69.3
Agree	208	27.4	96.7
Strongly Agree	25	3.3	100.0
Total	760	100.0	

*Note. Mean: 2.1, SD: 0.8*

**Involvement in American Culture**

To gauge whether smartphones impacted their level of involvement in American culture, respondents were asked about their agreement with the following statement: “I would be more involved in the American culture if I did not use the smartphone.” The results show that 31.9% of respondents agree (N: 196, 25.8%) or strongly agree (N: 46, 6.1%) that they would be more involved in American culture if they did not use the smartphones (See table 21). In contrast, 68.1% of respondents disagree (N: 350, 46.0%) or strongly disagree 168 (N: 22.1%). Despite the fact that the majority do not perceive a negative impact of using smartphones on experiencing the host culture, the 32% of respondents that do could be enough to inspire more research.

Table 21

*Involvement in American Culture if not Using Smartphones*

Agreement level	Frequency	Percent	Cumulative Percent
Strongly Disagree	168	22.1	22.1
Disagree	350	46.0	68.1
Agree	196	25.8	93.9
Strongly Agree	46	6.1	100.0
Total	760	100.0	

*Note. Mean: 2.2, SD: 0.8*

## **Differences and Correlation Statistics**

In analyzing the potential patterns, the Kolmogorov-Smirnov Z two-way (KS-2) was the appropriate statistical test to examine differences between nominal data, such as gender and yes/no questions, and ordinal data. The Spearman's Rho was the most appropriate statistic test to examine the potential correlation between two variables of ordinal data. This section addresses the following research question:

**RQ8: What Differences and correlations exist between the demographics of Saudi Arabian students studying in the United States and their use of smartphones as a news resource?**

To answer this question, the researcher used the following demographic measures as the independent variables: age, gender, status as an ESL student, and educational levels. The dependent variables were: how often Saudi Arabian students studying in the United States use smartphone to get news, how often they share news, their agreement of feeling overwhelmed by news, the preferred language in which to read news, and the perceived impact of using a smartphone to be more involved in American culture. These dependent and independent variables yielded the following hypotheses:

### **Independent Variable 1: Gender**

Gender is one of the most common independent variables to be utilized as an indicator of media uses when applying the Uses and Gratification Theory. Researchers found significant gender difference in media use (Albarran & Hutton, 2009; Ancu & Cozma, 2009; Creswell, 2009; Nurullah, 2009; Wei & Lo, 2006; Westlund, 2009).

H1: There is a difference between gender and how often Saudi Arabian students studying in the United States use smartphones to get news.

(Null)  $H_0$ : There is no difference between gender and how often Saudi Arabian students studying in the United States use smartphone to get news.

Yang (2010) found gender to be a significant predictor of adopting smartphones for news access. Wie and Lo (2006) found significant gender differences in using mobile phones: women use mobile phones more to keep connected with family, while men use it more for news and seeking-information. Albarran and Hutton (2009) found the same difference between men and women. In the current study, as this topic is relatively new, the researcher did not have enough evidence to propose a direction between genders using smartphones to access news. Therefore, hypothesis one proposed only to explore whether there is a difference between how often females and males use smartphones to get news.

KS-2 was used to check for a significant difference in usage between genders. The test looked for differences without specifying a direction, so the test is two-tailed. KS-2 is 1.9 which is significant at the level of 0.001. Therefore, the null hypothesis is rejected. The results show that there is a significant difference between males and females in the pattern of smartphone usage to get news. A frequency of 243 (41.8%) males stated that they always use smartphones to get news in comparison to 49 (25.8%) females. Also, 5.7% of males stated that they never or rarely use smartphones to get news, in comparison to 13.1% of females (See table 22).

Table 22

*Using Smartphones to Get News by Gender*

Gender	Never	Rarely	Sometimes	Often	Always	Total
Male	10 1.7%	23 4.0%	104 17.9%	201 34.6%	243 41.8%	581 100.0%
Female	5 2.6%	20 10.5%	47 24.7%	69 36.3%	49 25.8%	190 100.0%

*Note. Kolmogorov-Smirnov Z: 1.9, Asymp. Sig. (2-tailed): .001*

H2: There is no difference between gender and sharing news via social networks using smartphones among Saudi Arabian students studying in the United States.

(Null)  $H_0$ : There is a difference between gender and sharing news via social networks using smartphones among Saudi Arabian students studying in the United States

The pilot study showed that 75% of respondents are sharing more news via social networks since they began using smartphones. Ma, Lee, & Goh, (2012) did not find evidence that gender influences how users share news. As no directionality is assumed, a two-tailed KS-2 test was used to see whether there was a difference between genders in sharing news.

KS-2 is 0.63 which is not significant at alpha level of 0.05. Therefore, the null hypothesis is rejected. This tells us there is no significant difference between genders in the sharing of news using smartphones.

To investigate this hypothesis more deeply, the KS-2 test was used to check whether there are significant differences in sharing news using the different social networking sites. The results show that there are significant gender differences in sharing news via Facebook (KS-2: 2.67,  $p < 0.01$ ) and YouTube (KS-2: 1.55,  $p < 0.05$ ).

The results show that males (N: 248, 43.5%) share news links via Facebook using smartphones more often than females (N: 46, 24.9%) (See table 23).

Table 23

*Sharing News Links via Facebook by Gender*

Gender	Never	Rarely	Sometimes	Often	Very often	Total
Male	62 10.9%	96 16.8%	165 28.9%	138 24.2%	110 19.3%	571 100.0%
Female	50 27.0%	43 23.2%	46 24.9%	19 10.3%	27 14.6%	185 100.0%

*Note. Kolmogorov-Smirnov Z: 2.67, Asymp. Sig. (2-tailed): 0.00*



Sharing news via YouTube through smartphones is statically different between males who are more active (N: 207, 36.3%) than females (N: 47, 25.5%) (See table 24).

Table 24

*Sharing News Links via YouTube by Gender*

Gender	Never	Rarely	Sometimes	Often	Very often	Total
Male	162 28.4%	72 12.6%	130 22.8%	82 14.4%	125 21.9%	571 100.0%
Female	75 40.5%	25 13.5%	38 20.5%	21 11.4%	26 14.1%	185 100.0%

*Note. Kolmogorov-Smirnov Z: 1.55, Asymp. Sig. (2-tailed): 0.017*

H3: There is a difference between gender and feeling overwhelmed by the amount of news since adopting smartphones among Saudi Arabian students studying in the United States.

(Null) H0: There is no difference between gender and feeling overwhelmed by the amount of news since adopting smartphones among Saudi Arabian students studying in the United States.

The pilot study showed that 74% of the respondents get more news since adopting smartphones. This raised a question regarding feelings of being overwhelmed by the amount of news. Holton and Chyi (2012) found that females are more likely to feel overwhelmed by news. This hypothesis was proposed to see whether there is a gender difference in feeling overwhelmed by the amount of news since adopting smartphones.

To examine if there was a difference between gender and feeling overwhelmed by news, a two-tailed KS-2 test was used. The results show that KS-2 is 1.07 (p: 0.2) which is not significant at alpha level of 0.05. Therefore, the null hypothesis is not rejected. Contrary to Holton and Chyi (2012), there is no significant difference between gender and feeling overwhelmed by the amount of news.

H4: There is a difference between gender and the preferred language for reading news among Saudi Arabian students studying in the United States.

(Null) H0: There is no difference between gender and the preferred language for reading news among Saudi Arabian students studying in the United States.

International students use the media in the acquisition of English as a second language (Tourtellotte, 2012). The language is considered a challenge and cultural barrier facing international students (Tas, 2013). The pilot study indicated that 32% of the respondents are ESL students. This hypothesis looked at a possible difference between males and females in their preferred language in reading news using smartphones.

A two-tailed KS-2 test was used to determine whether there is a gender difference in preferring Arabic versus English for reading news using smartphones. A KS-2 of 0.73 (p: 0.66) was found, which is not significant at alpha level of 0.05. Therefore, the null hypothesis is not rejected. This shows that in terms of the preferred language for reading news, there is no significant difference between males and females.

H5: There is a difference between gender and the perception of an impact of using smartphones to be more involved in American culture among Saudi Arabian students studying in the United States.

(Null) H<sub>0</sub>: There is no difference between gender and the perception of an impact of using smartphones to be more involved in American culture among Saudi Arabian students studying in the United States.

Saudi students are culturally influenced by gender restrictions (Razek & Coyner, 2013). The involvement of foreign students in a new culture is influenced by factors such as homesickness, low self-esteem, cultural misunderstandings, gender differences, alienation and a

lack of inclusion in their new host culture (Lee, 2010; Sherry, Thomas, & Chui, 2010; Smith & Khawaja, 2011; Tas, 2013). Based on the complexity of these aspects and gender restrictions, the researcher was not able to hypothesize a direction for gender difference and the perception of an impact of using smartphones to be more involved in American culture.

Since there was no direction, a two-tailed KS-2 test was used to check the gender difference of preferring Arabic versus English for reading news using smartphones. The results show that the KS-2 is 0.82 (p: 0.51), which is not significant at alpha level of 0.05. Therefore, the null hypothesis is not rejected. There is no significant difference between gender and the perception of an impact of using smartphones to be more involved in American culture.

### **Independent Variable 2: Age**

Age is another common independent variable that is utilized as an indicator of media use in the application of the Uses and Gratification Theory. It is also used to follow changing news patterns in the general population (Diddi & LaRose, 2006)

H6: There is a correlation between age and how often Saudi Arabian students studying in the United States use smartphones to get news.

(Null) H<sub>0</sub>: There is no correlation between age and how often Saudi Arabian students studying in the United States use smartphones to get news.

Yang (2010) found age to be a significant predictor for accessing news via smartphones. He found that younger users access news more than older users. Based on the researcher's observations, he was unsure of the direction of age difference. This hypothesis proposed that there is a correlation between age and accessing news via smartphones.

Spearman's Rho test was used to examine the significance of the correlation between the age groups and how often they use smartphones to get news. A Spearman's Rho of -0.058 was

found ( $p: 0.1$ ) which is not significant at alpha level of 0.05. Therefore, the null hypothesis is not rejected. The results do not support Yang (2010) findings. There is no significant evidence of a correlation between age and how often respondents use smartphones to get news.

H7: There is a correlation between age and sharing news via social networks using smartphones among Saudi Arabian students studying in the United States.

(Null)  $H_0$ : There is no correlation between age and sharing news via social networks using smartphones among Saudi Arabian students studying in the United States.

Ma et al. (2012) found a negative correlation between age and news sharing. Sarpino & Alshif (2013) found that most Saudi Arabian students who use social networking sites are younger than 30 years old. The literature review along with the researcher's observations did not provide enough information to distinguish a direction. This hypothesis proposed a correlation between age and sharing news via social networking sites using smartphones.

A Spearman's Rho of -0.015 was found ( $p: 0.69$ ), which is not significant at an alpha level of 0.05. Therefore, the null hypothesis is not rejected. There is no significant evidence of a correlation between age and sharing news via social networking sites.

A Spearman's Rho test was used to examine whether there is a correlation between age and sharing news with the various social networking sites. The findings show that there is a significant difference between age and sharing news links via YouTube. A Spearman's Rho of -0.117 ( $p: 0.001$ ) was found which is statically significant at alpha level of 0.01. The correlation is negative and a chance relationship based on Koenker's scale (Reinard, 2006). The negative correlation is obvious with the respondents' choice of very often. Respondents from the 18 – 25 year age group identified with the choice of very often (22.4%) more than other age groups (See table 25). By a small margin of 2.5% the respondents in the 26 -30 year age group were less

likely to choose the choice of very often (19.9%). This pattern continues as higher age groups identify with the choice less the younger ages. This is consistent with the information that younger students have a higher level of smartphone usage.

Table 25

*Correlation Between Age and Sharing News Links via YouTube*

Age	Never	Rarely	Sometimes	Often	Very often	Total
18 - 25	103 27.8%	39 10.5%	84 22.6%	62 16.7%	83 22.4%	371 100.0%
26- 30	94 33.9%	41 14.8%	55 19.9%	32 11.6%	55 19.9%	277 100.0%
31-35	32 41.0%	12 15.4%	19 24.4%	5 6.4%	10 12.8%	78 100.0%
36 - 40	6 28.6%	4 19.0%	5 23.8%	4 19.0%	2 9.5%	21 100.0%
Above 40	1 11.1%	1 11.1%	5 55.6%	1 11.1%	1 11.1%	9 100.0%

*Note. Spearman's Rho Correlation Coefficient: -.117\*\*, Sig. (2-tailed): .001*

H8: There is a negative correlation between age and feeling overwhelmed by the amount of news since adopting smartphones among Saudi Arabian students studying in the United States.

(Null) H<sub>0</sub>: There is a positive correlation or no correlation between age and feeling overwhelmed by the amount of news since adopting smartphones among Saudi Arabian students studying in the United States.

As seen earlier in table 14, 64.1% of respondents agreed or strongly agreed they feel overwhelmed by the amount of news they consumed since adopting a smartphone. Holton and Chyi (2012) found that news overload is negatively associated with different age groups. That means older news consumers feel less overwhelmed than younger news consumers. This hypothesis shares this view and proposed a negative correlation between age and feeling

overwhelmed. It predicted that younger students will feel more overwhelmed by news than older students.

A Spearman's Rho of 0.02 was found ( $p$ : 0.62), which is not significant at alpha level of 0.05. Therefore, the null hypothesis is not rejected. These results show that this study does not agree with Holton and Chyi (2012). There is no significant correlation between age and feeling overwhelmed by news.

H9: There is a positive correlation between age and the preference of reading news in English via smartphones among Saudi Arabian students studying in the United States.

(Null)  $H_0$ : There is a negative correlation or no correlation between age and the preference of reading news in English via smartphones among Saudi Arabian students studying in the United States.

Through the researcher's observations of Saudi Arabian students studying in the United States, he found that older students referred to news stories from Western media more than younger students. This hypothesis was proposed to see whether there is a correlation between age and preferred language for reading news.

A Spearman's Rho test was used to examine whether there is a correlation between different age groups and the preferred language for reading news with smartphones. A Spearman's Rho of -0.013 was found ( $p$ : 0.73), which is not significant at alpha level of 0.05. Therefore, the null hypothesis is not rejected. Contrary to what the researcher's observations suggested, there is no significant correlation between age and the preferred language for reading news.

H10: There is a correlation between age and the perception of an impact of using smartphones to be more involved in American culture among Saudi Arabian students studying in the United States.

(Null)  $H_0$ : There no correlation between age and the perception of an impact of using smartphones to be more involved in American culture among Saudi Arabian students studying in the United States.

International students find many difficulties in becoming involved in the new culture when they study abroad (Sherry et al., 2010). Using smartphones helps them to keep connected with their families and their conational communities. Younger students could have more time and desire to participate in cultural based activities. In contrast, older students may already be fluent in English and comfortable assimilating to a new culture based upon their life experience. Therefore, the researcher could not predict a direction for the correlation between students' age and their perception of an impact of using smartphones to be more involved in American culture.

A Spearman's Rho of 0.7 was found ( $p$ : 0.047) while examining the correlation between age and the perception of an impact of using a smartphone to be more involved in American culture. This result indicates a significant correlation at alpha level of 0.05. Therefore, the null hypothesis is rejected. There is a significant positive correlation between students' age and their perception of an impact of using smartphones to be more involved in American culture. The correlation is a chance relationship based on Koenker's scale (Reinard, 2006). Although it is a weak correlation, it suggests some patterns. The older respondents agree that there is an impact of using smartphones to be more involved in American culture more than the younger respondents (See table 26).

Table 26

*Correlation Between Age and the Perception of a Cultural Impact*

Age	Strongly disagree	Disagree	Agree	Strongly Agree	Total
18 - 25	87 23.5%	178 48.0%	89 24.0%	17 4.6%	371 100.0%
26- 30	57 20.6%	127 45.8%	73 26.4%	20 7.2%	277 100.0%
31-35	15 19.2%	37 47.4%	21 26.9%	5 6.4%	78 100.0%
36 - 40	4 19.0%	6 28.6%	9 42.9%	2 9.5%	21 100.0%
Above 40	3 33.3%	2 22.2%	3 33.3%	1 11.1%	9 100.0%

*Note. Spearman's Rho Correlation Coefficient: .072\*, Sig. (2-tailed): .047*

**Independent Variable 3: Status as an ESL Student**

The literature review revealed that language skills are considered to be the most critical barrier in the adoption of a new culture (Lee, 2010; Sherry et al., 2010; Smith & Khawaja, 2011; Tas, 2013). The pilot study indicated that 32% of Saudi Arabian students spend considerable time as ESL students to learn and improve their English. This fact raised two hypotheses proposing there is a difference between status as ESL students and their use of smartphones while studying abroad, specifically with regard to linguistic factors and cultural impact.

H11: There is a difference between status as an ESL student and the preferred language for reading news among Saudi Arabian students studying in the United States.

(Null) H<sub>0</sub>: There no difference between status as an ESL student and the preferred language for reading news among Saudi Arabian students studying in the United States.

Previous studies (Alanazi, 2012; Scarpino & Alshif, 2013) revealed that more than 30% of Saudi Arabian students studying in the United States are ESL students. They are more likely to lack sufficient English language skills needed to read the news. At the same time, they might



use the new media to read news in English more than in Arabic to improve their linguistic skills (Tourtellotte, 2012). Therefore, the researcher could not predict which language students would prefer for reading news, although he proposed a difference between status as ESL students and the preferred language for reading news.

The results of two-tailed KS-2 (2.47, p: 0.00) indicate a significant difference between using Arabic and English to read news via smartphones and status as an ESL student. Therefore, the null hypothesis is rejected. A frequency of 41 (17.4%) ESL students use only Arabic to read news, while 53 (10.1%) non-ESL students use only Arabic (See table 27). In addition, 111 (47.1%) ESL students are between one and four on the scale, which means they are using Arabic more, in comparison to 145 (27.6%) non-ESL students. Thus ESL students, who are still learning English, are more likely to use Arabic to read the news.

Table 27

*Preferred Language for Reading News by Status as an ESL Student*

ESL Student	Arabic Only 1	2	3	4	5	6	7	8	9	English 10	Total
Yes	41	11	27	32	63	20	18	6	6	12	236
Percent	17.4	4.7	11.4	13.6	26.7	8.5	7.6	2.5	2.5	5.1	100.0
No	53	11	31	50	199	59	40	35	21	25	524
Percent	10.1	2.1	5.9	9.5	38.0	11.3	7.6	6.7	4.0	4.8	100.0

*Note. Kolmogorov-Smirnov Z: 2.47, Asymp. Sig. (2-tailed): 0 .00*

H12: There is a difference between status as an ESL student and the perception of an impact of using the smartphone to be more involved in American culture among Saudi Arabian students studying in the United States.

(Null) H<sub>0</sub>: There no difference between status as an ESL student and the perception of an impact of using the smartphone to be more involved in American culture among Saudi Arabian students studying in the United States.

ESL students are more likely to face the challenge of a language barrier than the non-ESL students, specifically in the adoption of a new culture (Lee, 2010). Similar to the logic of hypothesis 11, it is difficult to predict whether ESL students have a different perception than non-ESL students. They may be more encouraged to be involved in American culture to improve their English language skills. Because of the language barrier, they could be less involved than non-ESL students. This hypothesis proposed to explore whether the lack of English language could make a difference in the perception of an impact of smartphone usage on the involvement in American culture.

A KS-2 was used to determine whether there is a difference between status as an ESL student and the perception of an impact of using smartphones to be more involved in American culture. The two-tailed KS-2 is 0.38 (p: 0.1), is not significant at the level of 0.01. Therefore, the null hypothesis is not rejected. There is no significant difference between status as an ESL student and the perception of an impact of smartphone usage on the involvement in American culture.

#### **Independent Variable 4: Education Level**

The population of college students is considered an appropriate target for a study of smartphone usage because they are usually heavy users (Bakke, 2010). Saudi Arabian students who are studying in the United States are mostly undergraduate and graduate students (see table 5). The sample of this study includes only 13 medical fellowship students. They are a small percentage of the sample at 1.6%. The researcher excluded this portion of the sample to obtain an ordinal ranked sample to use a more powerful statistical test. Therefore, the educational level in the following hypotheses consists of bachelor, master, and Ph.D. students.

H13: There is a correlation between education level and how often Saudi Arabian students studying in the United States use smartphones to get news.

(Null)  $H_0$ : There no correlation between education level and how often Saudi Arabian students studying in the United States use smartphone to get news.

Some research has found that education is associated with news consumption (Chyi & Chadha, 2011). Yang (2010) found that education is a significant predictor of adopting smartphones to access news, although this association is not always significant (Hostut, 2010). Ancu and Cosma (2009) found a positive correlation between education and information seeking. The findings of these studies were unclear; therefore we are unable to propose the directionality of a correlation. This hypothesis seeks to determine if there is a correlation between education level and how often Saudi Arabian students studying in the United States use smartphones to get news.

A Spearman's Rho test was used to examine whether there is a correlation between different educational levels and how often respondents use their smartphones to get news. A Spearman's Rho of 0.024 was found ( $p$ : 0.051), which is not significant at alpha level of 0.05. Therefore, the null hypothesis is not rejected. Contrary to Yang (2010) and Ancu and Cosma (2009), the researcher did not find a significant pattern. This is consistent with Hotstut's (2010) findings that significance is not always found with these variables.

H14: There is a correlation between educational level and sharing news via social networks using smartphones among Saudi Arabian students studying in the United States.

(Null)  $H_0$ : There no correlation between educational level and sharing news via social networks using smartphones among Saudi Arabian students studying in the United States.

As previously mentioned, the pilot study revealed that 75% of respondents are sharing more news via social networks since adopting a smartphone. This hypothesis was proposed based upon the researcher's observations of Saudi Arabian students sharing news on a regular basis. However, based on the limited observations, it is difficult to hypothesize the directionality of a correlation between education level and sharing.

A Spearman's Rho test was used to examine whether there is a correlation between education levels and how often respondents use their smartphones to get news. A Spearman's Rho of 0.063 was found ( $p$ : 0.086), which is not significant at alpha level of 0.05. Therefore, the null hypothesis is not rejected; indicating education does not appear to have a significant impact on sharing news.

To investigate this hypothesis more deeply, a Spearman's Rho test was used to examine whether there is a correlation between education levels of the respondents and how often they share news links via social networking sites using smartphones. The results revealed that there are some significant correlations between education level and sharing news links via Facebook and YouTube.

There is a significant correlation between education level and sharing news links via Facebook using smartphones among respondents. A Spearman's Rho of -0.078 was found ( $p$ : 0.041), which is significant at alpha level of 0.05. The negative correlation has only a chance relationship based on Koenker's scale (Reinard, 2006). Nevertheless, the results reveal that undergraduate students (45.3%) are more active in sharing news than master students (31.1%) and Ph.D. students (40.1%) (See table 28).

Table 28

*Correlation Between Education Level and Sharing News Links via Facebook*

Education level	Never	Rarely	Sometimes	Often	Very often	Total
Bachelor	41 11.3%	65 18.0%	92 25.4%	91 25.1%	73 20.2%	362 100.0%
Master	59 20.8%	55 19.4%	81 28.6%	47 16.6%	41 14.5%	283 100.0%
Ph.D.	9 8.8%	18 17.6%	34 33.3%	18 17.6%	23 22.5%	102 100.0%

*Note. Spearman's Rho Correlation Coefficient: -.078\*, Sig. (2-tailed): .041*

In addition, there is a significant negative correlation between educational level and sharing news links via YouTube using smartphones among Saudi Arabian students studying in the United States. A Spearman's Rho of -0.134 was found ( $p: 0.00$ ), which is significant at alpha level of 0.01, a chance relationship based on Koenker's scale (Reinard, 2006). Undergraduate students (41.4%) are more active and share more news links via YouTube than graduate students (Master: 28%, Ph.D.: 24%) (See table 29). This could be explained by the lack of free time graduate students have in comparison to undergraduate students.

Table 29

*Correlation Between Education level and Sharing News Links via YouTube*

Education level	Never	Rarely	Sometimes	Often	Very often	Total
Bachelor	100 27.6%	35 9.7%	77 21.3%	59 16.3%	91 25.1%	362 100.0%
Master	97 34.3%	42 14.8%	64 22.6%	36 12.7%	44 15.5%	283 100.0%
Ph.D.	34 33.3%	18 17.6%	25 24.5%	9 8.8%	16 15.7%	102 100.0%

*Note. Spearman's Rho Correlation Coefficient: -.134\*\*, Sig. (2-tailed): .000*

H15: There is a correlation between education level and the perception of an impact of using smartphones to be more involved in American culture among Saudi Arabian students studying in the United States.

(Null)  $H_0$ : There no correlation between education level and the perception of an impact of using smartphones to be more involved in American culture among Saudi Arabian students studying in the United States.

International students usually get more involved in American culture after mastering the English language and spending more time studying abroad (Lee, 2010). Through the King Abdullah scholarship program, Saudi Arabian students have the opportunity to obtain all or most of their higher education in American universities. Based on the researcher's observations, a large number of Saudi Arabian students have mastered the English language and have spent more than one year in the United States which could make it easier to be involved in American culture. However, that is not enough of a foundation to predict graduate students would perceive more cultural impact. This raised a hypothesis of a possible correlation between education level and the perception of an impact of using smartphones to be more involved in American culture.

A Spearman's Rho of -0.01 was found ( $p$ : 0.81), which is not significant at alpha level of 0.05. The null hypothesis is not rejected. These results did not reflect the researcher's observations that there is no significant correlation between education level and the perception of an impact of using the smartphone to be more involved in American culture.

This chapter has examined descriptive statistics answering seven research questions. In addition, it examined 15 hypotheses to answer research question number eight. In Chapter Five a discussion will further examine the results and provide an overall conclusion.

## CHAPTER 5

### SUMMARY, CONCLUSIONS, RECOMMENDATIONS

A Qualtrics survey was used to gather data to analyze the use of smartphones as a news resource among Saudi Arabian students studying in the United States. Out of 789 respondents completing the survey, the majority were males between the age of 18 and 30. ESL students comprised 31.2% of respondents. Respondents intend to pursue a higher level of education at the undergraduate, graduate or medical fellowship level. This study was guided by the Uses and Gratification Theory.

#### **Summary**

The study consisted of eight research questions and 15 hypotheses. This summary discusses the most important findings and possible implications for further research. The focus is on the use of smartphones to access news and the level of news consumption which was used as an indication of the obtained gratifications. The use of social networking sites for news sharing is discussed. Additionally, the connectivity of respondents to different communities using their smartphones and their cultural involvement are also explored.

#### **Uses of Smartphones**

Lenhart et al. (2010) found that 93% of adults ages 18 to 29 now have a smartphone, or at least a cell phone. Saudi Arabia has the third highest smartphone penetration in the world with 72.8 % of Saudi Arabians owning a smartphone (Google, 2013). The majority of the respondents in these studies were under 30 years old. Consistently, the current study's findings revealed almost all respondents (98.4%) use smartphones. This indicates a preference of the smartphone over standard cell phone.

Smartphones are commonly used for maintaining social relationships (Nurullah, 2009). Social networking sites in particular allow people to communicate regularly with family members, friends, and their various communities (Scarpino & Alshif, 2013). The current study's findings indicate that respondents use their smartphones to access social networking sites (93.7%) as much as they use it for interpersonal communication (92.3%). They also use smartphone messaging applications that provide free texting, free calls and free video calls (77.6%). Respondents are more connected with their national community in Saudi Arabia than their local Saudi community in the United States, with the least connection being to the local American community. These results show that the use of smartphones for connectivity is dominant. This current study supports the idea of Scarpino & Alshif (2013) and Tas (2013b) that international students face some challenges when studying abroad by staying connected with their friends, families and social groups.

With the technological revolution that provides people with numerous ways to get news through multiple devices, seeking information and news is one of the common usages of smartphones (Chyi & Chadha, 2011). Yang (2011) found that 67.3% of smartphone users have accessed news via a smartphone while Albarran and Hutton (2009) found that accessing news and information through mobile phones does not have a high usage rate. The Google study (2013) revealed that 69% of Saudi Arabians use smartphones for keeping up with news, 61% of users read news on newspaper or magazine sites, and 57% access websites and blogs (Google, 2013).

The current study's findings show that smartphones are the most utilized news source (83.5%) among different news sources such as traditional media and new devices such as laptops, desktops, and other portable platforms. Seeking information is the third most prominent



usage of smartphones among 86.7% of respondents. With 70.1% of respondents who are interested in news, the majority of respondents (72.8%) stated that they always or often accessing news using their smartphones. Also, 62% of them consider smartphones their main source of news. A cumulative percent reveals that 97.9% of respondents use smartphones to get news at some level between the categories of rarely and always. The findings agree with the literature, except Albarran, who found a low usage of mobile phones for news and seeking information. It appears that the use of smartphones for accessing news and considering it a main news resource among respondents is pervasive. The researcher can conclude, based upon the results and analysis of the data, that smartphones play an integral part as a main news resource.

The current study's results show a significant gender difference; males access news more than females. This result is consistent with Wie and Lo (2006) who also found a significant difference between genders. In addition, there is no significant evidence that there is a correlation between age and how often respondents use smartphones to get news. This contradicts the findings of Yang (2010) who found a correlation between age and using smartphones to get news. Opposing Yang (2010), and Ancu and Cosma (2009), the results did not show any correlation between education level and news access through smartphones. Gender has an impact but unlike other studies age does not.

The current study's results also show that respondents use their smartphones in many other aspects of their lives; 83.0% of respondents use their smartphones for a variety of applications. They also use it for entertainment (66.5%) and shopping (53.6%).

### **News Consumption**

The respondents have a high rate of using smartphones to get news. The researcher examined the high news consumption through different aspects. The results show that three out

of every five respondents check news more than ten times every day. About 15% of respondents check the news more than 25 times in 24-hour period. Moreover, 68.3% of respondents check news through their smartphones before sleeping and when they first wake up in the morning. These results show a habit of checking news frequently. These results support the idea of “checking behaviors” that are common among smartphone users (Oulasvirta, Rattenbury, Ma, & Raita, 2012). It also agrees with Falaki et al. (2010) that some phone users interact with their phones 10-200 times a day on average.

The current study’s findings indicate that the use of smartphones has increased the amount of news to which respondents are exposed. A large proportion of the respondents (85.3%) indicate they have started to get more news through the use of smartphones. Baron (2010) pointed to feelings of stress or anxiety for some people; it could be caused by being constantly reachable and accessing new information. Holton and Chyi (2012) stated that finding more news and having additional information could cause negative consequences for people. They also found that news consumers exposed to large amounts of information experienced a feeling of being overloaded with news. Their findings indicated an association between overload and news access via computers, e-readers, and Facebook, which is not found with the use of other sources such as television and the iPhone (Holton & Chyi, 2012). In this current study, the results show that 64.1% respondents indicated they feel overwhelmed by the amount of news they are accessing through smartphones. These results agree with Baron (2010) and Holton and Chyi (2012), who found getting more news could cause negative feelings. These results show a negative impact of using smartphones to get news.

Holton and Chyi (2012) found females are more likely to feel overloaded with news. In this current study there is no significant difference between gender and feeling overwhelmed by

news. They also found that news overload is negatively associated with different age groups. This also was not found in this current study; there is no significant correlation between age and feeling of being overwhelmed by news. It seems that feeling overwhelmed with news is common throughout all categories of smartphone users.

In Saudi Arabia, 57% of smartphone users indicated that they never leave home without their smartphones (Google, 2013). The current study's results show the reliance on smartphones to be connected to the world is higher in the United States, 83.5% of our respondents said they would feel isolated without their smartphones. This result shows how respondents are reliant on this new technology in their social lives.

### **Gratifications**

The use of smartphones for accessing news is related to many obtained gratifications. Some of these gratifications are: the ease of use (Park & Chen, 2007), the availability of different news resources (Oksman, 2010), the immediate accessibility (Zhen et al, 2012) and interactivity with news (Oksman, 2010). The results of this current study show a high agreement with these gratifications. A high percentage of respondents (93.1%) stated that the ease of use attracts them to utilize smartphones to access news. The majority of the respondents (90.3%) indicated that the availability of accessing many different news sources attracts them to use smartphones to get news. Getting current and updated news attracts 88.0% of respondents to get news via their smartphones. Also, 70.7% of respondents are attracted because they can interact with the news by commenting and sharing their opinions. In addition, 79.8% of respondents find the availability of Arabic news an attraction to get news via smartphones. Thus, respondents are seeing value and receiving gratification by using smartphones as a news resource.

## **Social Networking Sites and Sharing News**

Social media, specifically social networking sites, have become the number one way for people to gain access to news shared by their users (Ma et al., 2012). Yang (2011) found that social networking sites are popular with smartphone news consumers. People use social networking sites to get connected with people who share similar interest, thus encouraging users to share more news and information (Ma et al., 2012). The use of smartphones makes it easier for people around the world to communicate by sharing news and information instantaneously (Bakke, 2010).

In Saudi Arabia 70% of smartphone users access social networking sites via their smartphones (Google, 2013). Scarpino and Alshif (2013) found that Facebook is the most popular social networking site (96.2%) among Saudi Arabian students studying in the United States followed by YouTube (59.8%) and Twitter (48.5%). In this current study, the results revealed an agreement with the Scarpino and Alshif (2013) study, indicating Facebook as the most popular social networking site with at least 85.3% of respondents accessing it through their smartphones. YouTube and Twitter are ranked the same in the study of Scarpino and Alshif (2013) but with higher numbers of users. In this current study, at least 78.6% of respondents access YouTube via smartphones, which agrees with Google's study (2013) that indicated 70% of Saudi Arabian smartphone users access video sharing news websites. The current study's results show Twitter is the least popular social networking site but still 73.8% of respondents access Twitter via smartphones.

Scarpino and Alshif (2013) found that sharing feedback about news and current events is the main purpose for 66.7% of social networking sites' users. They also found 51.5% of

respondents use social networking sites for sharing photos, videos and music. In this current study, the findings show 73.9% of respondents share more news with others since adopting smartphones. In addition, almost half of respondents who access social networking sites via smartphones stated that they always or often share news.

Ma et al. (2012) stated there is no evidence that gender influences sharing news, and the results of this study agree in the case of sharing news in general. However, the current study's results found a significant difference with males sharing news via Facebook and YouTube more than females. Ma et al. (2012) found a negative correlation between age and news sharing. In this current study, the results show only a significant negative correlation between age and sharing news, with younger users sharing news via YouTube more than older users. The current study's findings indicate a significant correlation between education level and sharing news via Facebook and YouTube, where undergraduate students are more active in sharing news than graduate students.

These results indicate that news flows through more than one circle. In other words, the news has a non-stop flow. The receiver of a news story becomes a sender when he shares it with friends and other contacts; the second receiver might do the same thing. The results also show that younger students and undergraduates are possibly more active in sharing news. Conclusions suggest that the new generation will change the circulation and the flow of news through their use of new media. That could be explained by undergraduate students possibly having more free time than graduate students.

### **Connectivity and Cultural Involvement**

The impact of using smartphones on involvement in a host culture has not been found in previous studies. In this study, the researcher tried to explore this possible impact through some

aspects of smartphone usage and asking respondents directly about their perception of this impact.

The respondents were asked about their preferred media, Arab or Western media, to get different types of news via smartphones. The current study's results show that respondents are more dependent upon Arab media to get domestic news about Saudi Arabia. In addition, respondents preferred Arab media for accessing various types of news, such as political, social, and business news. Western media was only preferred for seeking domestic American news. The results show that there were no preferred media among respondents seeking news about health, education, art and celebrities. These results are supportive of the aforementioned results of the high gratification for the availability of Arabic news when using smartphones to access news. However, respondents do not think they would be more interested in domestic American news if their only options were traditional media sources. Although respondents do not see an impact of new media on their interest level in domestic American news, the use of smartphones for news accessing exposes them to always-available Arabic news. This ease of availability of Arab news could potentially reduce the time devoted to American media.

The literature cited learning English as one of the most critical challenges international students face when studying abroad (Lee, 2010; Sherry et al., 2010; Smith & Khawaja, 2011; Tas, 2013b). Thus, the researcher sought more in-depth information about respondents accessing Arabic news or using Arab media by asking them about their preferred language for reading news. The results reveal that the majority of respondents (70.9%) use both Arabic and English in reading news. Because 31.2% of the sample are ESL students, it is assumed that the majority of them lack proficient English language reading skills. Thus, the result of 12.4% of respondents reading news in Arabic only is explained. Gender and age do not appear to have an influence in

terms of the preferred language for reading news. The only significant difference is that ESL students use Arabic more than non-ESL students when they use smartphones to access news. The result supports that respondents take advantage of the availability of accessing Arabic news. Given lower levels of English skills this is not surprising. However, one might expect the reverse as it would be helpful for ESL students to read news in English more for learning purposes (Tourtellotte, 2012).

The research indicated foreign students encounter many challenges when studying abroad, by staying connected with their families, friends, and social groups (Scarpino & Alshif, 2013; Tas, 2013b). The smartphone has become a mass communication device that keeps people connected with public networks, organizations and communities (Oksman, 2010). Also, Wei and Lo (2006) found that use of mobile phones promotes ties and strong bonds with family, while being used for building social relationships. The current study's results show using smartphones for news helps respondents stay connected with their national community in Saudi Arabia, which is the most prevalent connection among other communities. There is also a high frequency of using smartphones to keep connected with the local Saudi community in the United States. Respondents reported the lowest level of connectivity was with the local American community in the United States. These results show that smartphones are used for connectivity with the native culture more than the host culture.

The majority of respondents (68%) do not perceive any impact of using smartphones on their involvement in American culture. The findings do not show any influence of gender, status as an ESL student, or education level on the perception of cultural effects of using smartphones, although respondents who perceived the cultural impact were significantly older.

In the matter of connectivity and cultural involvement, the use of smartphones helps respondents to get news from Arab media, the availability of different Arabic news sources support gratifications. They use Arabic and English for reading news, but the ESL students use Arabic more. They are also more connected to their national community in Saudi Arabia and their local Saudi community than to the local American community. Ironically, they do not perceive an impact of using smartphones on their involvement in American culture.

### **Recommendations**

Previous research indicated Saudi Arabian students face some obstacles when assimilating to American culture. One of the main issues is the large population of Saudi Arabian students on campuses around the United States (Razek & Coyner, 2013). They feel, as international students, isolated from Americans because of cultural and linguistic challenges (Sherry et al., 2010). They also need and desire to have conational friendships due to the ease of communications, alleviation of stress, and staying connected with their own cultures (Brown, 2009).

The current study reveals a high usage of smartphones to stay connected with the national community in Saudi Arabia and the local Saudi Arabian community in the United States. The use of smartphones may be a distraction from using English for reading news and accessing Western media. The researcher recommends that Saudi Arabian students studying in the United States take advantage of their smartphones to improve their English language. In addition, they use smartphones more to communicate with the local American community and to access Western media all in an attempt to be more involved with the host culture. That would help them adapt and flourish academically and personally.



## **Future Research**

Other recommendations for future research were raised. This study examined Saudi Arabian students studying in the United States. Would the results be different if the study were performed in another Western country? A developing country? In an Arab country? Also, would these results provide different conclusions if another population of foreign students were examined? Future research in these areas would provide answers to these questions.

The results could inspire research into culturally specific smartphone applications that help foreign students studying abroad to learn a new language and adapt to a host culture more easily. Based on how and how often people share news via social media, more research about the news flow and circulation is highly recommended.

The results of the pilot study indicated a feeling of being overwhelmed by news since people started to use smartphones. This current study reveals and supports the same conclusion. The researcher is inspired to do more research in the future to explore his approach of News Obesity Theory. The approach states that smartphone users are getting more news than they need through social networking sites and other applications, whether they want it or not. News overload could be harmful and needs to be treated. His future research will try to liken Twitter and similar applications to snacks, for example. Snacks are handily and accessible but not very satisfying and you always want to have more. Facebook, YouTube and similar applications would then be considered as fast food, they are available in large amounts but of variable and questionable nutritional value. The news websites could be thought of as restaurant food, more developed and nutritious but not good enough. Finally, traditional media would be the closest thing to home-cooked food. It is selected, developed and nutritious. The results of this current study will be the basis of future research in examining the concerns of news overload.

## **Limitations**

There are several limitations to this study. The researcher was only allowed limited access to Saudi Arabian students via the Saudi Cultural Mission Facebook page and Twitter account; they did not provide the researcher with the complete listserv. This made the sample non-random. Thus, the researcher does not have the ability to generalize the results to the Saudi Arabian population studying in the United States.

The survey was distributed via Qualtrics. There is no assurance that participants in fact met the survey criteria; any person can access the survey. The first question in the online survey clearly asked participants to identify themselves as Saudi Arabian students studying in the United States, if not they were excluded. However, the link could reach alumni or students that were not in the United States. They could just complete the survey out of curiosity. Even with these limitations the data was not corrupted due to the large number of respondents.

## **Conclusion**

Respondents rely on smartphones for accessing news and have a high interest in news. This suggests the gratifications realized by use of smartphones as a news resource. These gratifications are enhanced by a variety of smartphone functions. Smartphones make it easier to access many different current and updated news sources. The availability of Arabic news and the ability to interact with news are other elements. Respondents also are getting more news since adopting smartphones and they have a habit of checking news frequently. Undermining the gratification elements is that they are overwhelmed by the amount of news they are accessing through smartphones. Paradoxically, they feel isolated if they do not have their smartphones. This raises a significant dimension for future study.

The respondents share more news since adopting smartphones. They are also heavy users of social networking sites and actively share news through it using smartphones. Younger respondents more actively share news. The flow and circulation of news is expected to change and increase due to the high volume of sharing news.

In the matter of cultural impact of using smartphones, respondents claim that they do not perceive this impact. However, the use of smartphones seems to distract them from getting news from Western media. They also read news in Arabic, especially ESL students. Additionally, they are highly connected via smartphones to their national community in Saudi Arabia and their local Saudi community in the United States more than the local American community. Thus, the results revealed some indications of an existence of cultural impact of using smartphones.

## REFERENCES

- ABI Research. (2013). *Smartphone technologies and markets*. [Data file]. Retrieved from <https://www.abiresearch.com/research/product/1004938-smartphone-technologies-and-markets/>
- Alanazi, A. D. (2012). Smartphones as a resource for news among Saudi students in the United States. (Unpublished pilot study). Indiana University of Pennsylvania, Pennsylvania.
- Albarran, A. B., & Hutton, B. (2009). Young Latinos use of mobile phones: A cross-cultural study. *Revista de Comunicacion*, 8, 95-108.
- Alhazmi, A., & Nyland, B. (2010, December). *Saudi international students in Australia and intercultural engagement: A study of transitioning from a gender segregated culture to a mixed gender environment*. Paper presented at the International Education Conference of the ISANA: International Education Association, Melbourne, VIC, Australia.
- Ancu, M., & Cozma, R. (2009). MySpace politics: Uses and gratifications of befriending candidates. *Journal of Broadcasting & Electronic Media*, 53(4), 567-583.
- Bakke, E. (2010). A model and measure of mobile communication competence. *Human Communication Research*, 36(3), 348-371. doi:10.1111/j.1468-2958.2010.01379.x
- Baran, S. J., & Davis, D. K. (2011). *Mass communication theory: Foundations, ferment, and future*. Belmont, CA: Wadsworth.
- Baron, N. S. (2010). *The Dark Side of Mobile Phones*. Washington, D.C: Department of Language and Foreign Studies, American University.
- Berger, A. A. (2000). *Media and communication research methods: An introduction to qualitative and quantitative approaches*. Thousand Oaks, CA: Sage.

- Bergström, A., & Wadbring, I. (2012). Strong support for news media: Attitudes towards news on old and new platforms. *Media International Australia, Incorporating Culture & Policy* (144), 118-126.
- Bittner, J. R. (1989). *Mass communication: An introduction*. Englewood Cliffs, NJ: Prentice-Hall.
- Bivens, R. K. (2008). The Internet, mobile phones and blogging: How new media are transforming traditional journalism. *Journalism Practice*, 2(1), 113-129.
- Blumler, J. G. (1979). The role of theory in uses and gratifications studies. *Communication research*, 6(1), 9-36.
- Boczkowski, P. J. (2005). *Digitizing the news: Innovation in online newspapers*. Cambridge, MA: MIT Press.
- Brown, L. (2009). An ethnographic study of the friendship patterns of international students in England: An attempt to recreate home through conational interaction. *International Journal of Educational Research*, 48(3), 184-193.
- Buddenbaum, J., & Novak, K. (2001). *Applied communication research*. Hoboken, NJ: Wiley-Blackwell.
- Campbell, S. W., & Kwak, N. (2010). Mobile communication and civic life: Linking patterns of use to civic and political engagement. *Journal of Communication*, 60(3), 536-555.  
doi:10.1111/j.1460-2466.2010.01496.x
- Chisholm, J., Kilman, L., Milosevic, M., & Henriksson, T. (2013). *World Press Trends Report 2013*. Retrieved from <http://www.wan-ifra.org/reports/2013/08/16/world-press-trends-report-2013>

- Chyi, H. I., & Chadha, M. (2011, April). *News on new devices: Examining multiplatform news consumption in the digital age*. Paper presented at the International Symposium on Online Journalism, Austin, TX.
- Creswell, J. W. (2009). *Research design: Qualitative, quantitative, and mixed methods approaches*. Thousand Oaks, CA: Sage.
- Diddi, A., & LaRose, R. (2006). Getting hooked on news: Uses and gratifications and the formation of news habits among college students in an Internet environment. *Journal of Broadcasting & Electronic Media*, 50(2), 193-210.
- Dunnewijk, T., & Hultén, S. (2007). A brief history of mobile communication in Europe. *Telematics and Informatics*, 24(3), 164-179.
- Falaki, H., Mahajan, R., Kandula, S., Lymberopoulos, D., Govindan, R., & Estrin, D. (June, 2010). *Diversity in smartphone usage*. Paper presented at the International Conference on Mobile systems, Applications, and Services, San Francisco, CA.
- Feaster, J., Dimmick, J., & Ramirez, A. (2008). Uses and Gratifications and Competitive Superiority: Interpersonal Communication Goals as Gratifications Sought Leading to Use. In *Conference Papers -- National Communication Association*, (pp. 1).
- Fischer, K. (2012, June 14). Many foreign students are friendless in the US, study finds. [Web log post]. Retrieved from <http://chronicle.com/article/Many-Foreign-Students-Find/132275/>
- Global mobile statistics. (2013). Retrieved from <http://mobithinking.com/mobile-marketing-tools/latest-mobile-stats/a#smartphonepenetration>
- Google. (2013). Our mobile planet: Saudi Arabia: Understanding the mobile consumer. [Data file]. Retrieved from <http://services.google.com/fh/files/misc/omp-2013-ksa-en.pdf>

- Hoffmann, J., & Kornweitz, A. (2011). New media revolution? *Media Development*, 58(1), 7-11.
- Holton, A. E., & Chyi, H. I. (2012). News and the overloaded consumer: Factors influencing information overload among news consumers. *Cyberpsychology, Behavior, and Social Networking*, 15(11), 619-24. doi:10.1089/cyber.2011.0610
- Hoşut, S. (2010). Uses and gratifications of mobile phone use among students in Turkey. *Global Media Journal: Mediterranean Edition*, 5(1/2), 10.
- Institute of International Education. (2013a). International Student Totals by Place of Origin, 2011/12- 2012/13. *Open Doors Report on International Educational Exchange*. Retrieved from <http://www.iie.org/Research-and-Publications/Open-Doors/Data/International-Students/All-Places-of-Origin/2011-13>
- Institute of International Education (2013b). Top 25 Places of Origin of International Students, 2011/12-2012/13. *Open Doors Report on International Educational Exchange*. Retrieved from <http://www.iie.org/research-and-publications/open-doors/data/international-students/leading-places-of-origin/2011-13>
- Jensen, K. B. (2002). *A handbook of media and communication research: Qualitative and quantitative methodologies*. London, UK: Routledge.
- Katz, E., Blumler, J. G., & Gurevitch, M. (1973). Uses and gratifications research. *Public Opinion Quarterly*, 37(4), 509-523. doi:10.1086/268109
- Kawamoto, K. (2003). *Digital journalism: Emerging media and the changing horizons of journalism*. Lanham, MD: Rowman & Littlefield.
- Kim, J., & Jin, B. (2005, May). *In a different voice (and text): Gender differences in communication motives and uses of mobile phone*. Paper presented at the annual meeting of the International Communication Association, New York City, NY.

- King Abdullah Scholarships Program. (2013). Retrieved from <http://www.mohe.gov.sa/en/study-aboard/King-Abdulla-hstages/Pages/default.aspx>
- Lee, J. J. (2010). International students' experiences and attitudes at a US host institution: Self-reports and future recommendations. *Journal of Research in International Education*, 9(1), 66-84.
- Lee, S. (2004, May). *The uses and gratifications approach in the Internet age*. Paper presented at the annual meeting of the International Communication Association, New Orleans, LA.
- Lee, S. K. (2006, June). *Generational and lifestyle differences in mobile phone usage (top three paper)*. Paper presented at the annual meeting of the International Communication Association, Dresden, Germany.
- Lenhart, A., Purcell, K., Smith, A., & Zickuhr, K. (2010, Feb. 3). *Social media & mobile internet use among teens and young adults*. Retrieved from <http://www.pewinternet.org/2010/02/03/social-media-and-young-adults/>
- Leung, L., & Wei, R. (2000). More than just talk on the move: Uses and gratifications of the cellular phone. *Journalism & Mass Communication Quarterly*, 77(2), 308-320.
- Lometti, G. E., Reeves, B., & Bybee, C. R. (1977). Investigating the assumptions of uses and gratifications research. *Communication Research*, 4(3), 321-338.
- Ma, L., Lee, C. S., & Goh, D. H. L. (2012, May). Understanding news sharing in social media: An explanation from the diffusion of innovations theory. Paper presented at the annual meeting of the International Communication Association, Phoenix, AZ.
- Matanhelia, P. (2010). *Mobile phone usage among youth in India: A case stud* (Doctoral dissertation). Retrieved from <http://drum.lib.umd.edu/>



- McKeague, M. T. (2011). *The 21st century addiction: User generated content dependency and media aesthetic expectations as experienced through YouTube* (Doctoral dissertation). Available from ProQuest Dissertation and Theses database. (UMI No. 3460538)
- Merrill, J. C., Lee, J., & Friedlander, E. J. (1990). *Modern mass media*. New York City, NY: Harper & Row.
- News. (2013). In Oxford English Online Dictionary. Retrieved from [http://www.oxforddictionaries.com/us/definition/american\\_english/news](http://www.oxforddictionaries.com/us/definition/american_english/news)
- Nurullah, A. S. (2009). The cell phone as an agent of social change. *Rocky Mountain Communication Review*, 6(1), 19-25.
- Oksman, V. (2010). *The mobile phone: A medium in itself*. Retrieved from VTT Technical Research.
- Oulasvirta, A., Rattenbury, T., Ma, L., & Raita, E. (2012). Habits make smartphone use more pervasive. *Personal and Ubiquitous Computing*, 16(1), 105-114.
- Özturgut, O., & Murphy, C. (2009). Literature vs. Practice: Challenges for International Students in the US. *International Journal of Teaching and Learning in Higher Education*, 22(3), 374-385.
- Park, N. (2010). Adoption and Use of Computer-based voice over Internet protocol phone service: Toward an integrated model. *Journal of Communication*, 60(1), 40-72.  
doi:10.1111/j.1460-2466.2009.01440.x
- Park, Y., & Chen, J. V. (2007). Acceptance and adoption of the innovative use of smartphone. *Industrial Management & Data Systems*, 107(9), 1349-1365.

- Peters, O., & ben Allouch, S. (2005). Always connected: A longitudinal field study of mobile communication. *Telematics & Informatics*, 22(3), 239-256.  
doi:10.1016.j/tele.2004.11.002
- Razek, N. A., & Coyner, S. C. (2013). Cultural impacts on Saudi students at a mid-western American university. *Academy of Educational Leadership Journal*, 17(1), 103-117.
- Redden, E. (2013, May 30). *Strategies for Saudi student success*. Retrieved from <http://www.insidehighered.com/news/2013/05/30/international-educators-discuss-challenges-facing-saudi-students-and-strategies#ixzz2oJsheadD5>
- Reinard, J. C. (2006). *Communication research statistics*. Thousand Oaks, CA: Sage.
- Rogers, A. M. (2011). *The virtuous cycle: Online news, industry change and user choice*. Retrieved from OpenSIUC.
- Ruggiero, T. E. (2000). Uses and gratifications theory in the 21st century. *Mass Communication & Society*, 3(1), 3-37.
- Ryan, S. D., Magro, M. J., & Sharp, J. H. (2011). Exploring educational and cultural adaptation through social networking sites. *Journal of Information Technology Education*, 10, 1-16.
- Saudi Arabian Cultural Mission. (2013). Retrieved from <http://www.sacm.org/>
- Salwen, M. B., Garrison, B., & Driscoll, P. D. (2005). *Online news and the public*. London, UK: Routledge.
- Sawir, E., Marginson, S., Deumert, A., Nyland, C., & Ramia, G. (2008). Loneliness and international students: An Australian study. *Journal of Studies in International Education*, 12(2), 148-180.
- Scarpino, J. J., & Alshif, A. A. (2013). The impact of social networks on Saudi residents living in the United States. *Issues in Information Systems*, 14(1), 72-81.

- Sherry, M., Thomas, P., & Chui, W. H. (2010). International students: A vulnerable student population. *Higher Education*, 60(1), 33-46.
- Shu J., (2012). On the dominant status of American educational market for foreign students since 1980s. *International Education Studies*, 5(1), 147-153. doi:10.5539/ies.v5n1p147
- Smart, N. (2012). A survey of smartphone and tablet computer use by colorectal surgeons in the UK and continental Europe. *Colorectal Disease*, 14(9), 535-538.
- Smartphone. (2013). In Oxford English Online Dictionary. Retrieved from [http://www.oxforddictionaries.com/us/definition/american\\_english/smartphone?q=smartphone](http://www.oxforddictionaries.com/us/definition/american_english/smartphone?q=smartphone)
- Smith, R. A., & Khawaja, N. G. (2011). A review of the acculturation experiences of international students. *International Journal of Intercultural Relations*, 35(6), 699-713.
- Steinbock, D. (2005). *The mobile revolution: The making of mobile services worldwide*. Philadelphia, PA: Kogan Page.
- Swanson, D. L. (1979). The continuing evolution of the uses and gratifications approach. *Communication Research*, 6(1), 3-8.
- Tas, M. (2013a). Best practices in hosting international students in the U.S. *Cross-Cultural Communication*, 9(2), 14-17. doi:10.3968/j.ccc.1923670020130902.3197
- Tas, M. (2013b). International students: Challenges of adjustment to university life in the U.S. *International Journal of Education*, 5(3), 1-10. doi:10.5296/ije.v5i3.3481
- Tourtellotte, S. E. (2012). *The use of media in the acquisition of English as a second language* (Doctoral dissertation). Available from ProQuest Dissertation and Theses database. (UMI No. 3521924)

- Urista, M. A., Qingwen, D., & Day, K. D. (2009). Explaining why young adults use MySpace and Facebook through uses and gratifications theory. *Human Communication, 12*(2), 215-229.
- Vishwanath, A. and Chen, H. (2008). Personal communication technologies as an extension of the self: A cross-cultural comparison of people's associations with technology and their symbolic proximity with others. *Journal of the American Society for Information Science and Technology, 59*, 1761–1775. doi:10.1002/asi.20892
- Ward, J., & Hansen, K. A. (1987). *Search strategies in mass communication*. London, UK: Longman.
- Wei, R., & Lo, V. H. (2006). Staying connected while on the move: Cell phone use and social connectedness. *New Media & Society, 8*(1), 53-72. doi:10.1177/1461444806059870
- Westlund, O. (2008). From mobile phone to mobile device: News consumption on the go. *Canadian Journal of Communication, 33*(3).
- Westlund, O. (2009, May). *Perceptions of the mobile device as a news medium from a cross-cultural perspective*. Paper presented at the conference of the International Communication Association, Chicago, IL.
- Westlund, O. (2010). Convergent mobile news media: Tranquility awaiting eruption? *Palabra Clave, 13*(1), 99-110.
- Wirth, W., Von Pape, T., & Karnowski, V. (2008). An integrative model of mobile phone appropriation. *Journal of Computer-Mediated Communication, 13*(3), 593-617. doi:10.1111/j.1083-6101.2008.00412.x



- Yang, M. (2011, May). *Smartphone news: The 5W1H and predictors of smartphone news consumption*. Paper presented at the annual meeting of the International Communication Association, Boston, MA.
- Yang, M. J. (2010). *News on the go via smartphones: users, non-users, and the relationship between new and established news media* (Doctoral dissertation). Retrieved from <http://repositories.lib.utexas.edu/>
- Yelton, A. (2012). Who are smartphone users? *Library Technology Reports*, 48(1), 5-8.
- Zhen, S., Honglei, J., & Sen, Z. (2012). Who are intending to upgrade their mobile phones? An investigation among Chinese young people. *China Media Research*, 8(3), 92-101.

## APPENDICES

### Appendix A



#### Pilot Study Survey on Quliatrics

Q1





**Do you use a smartphone? What brand?**  
هل تستخدم أحد أنواع الهواتف الذكية الحديثة؟ ما نوعه؟

☐ I don't use a smartphone  
☐ iPhone  
☐ Blackberry  
☐ Samsung  
☐ Other, Mention it please



 If I don't use a smartphone Is Selected, Then Skip To Please  
choose your gender الجنس 

3





**Do you use your smartphone to get news?**  
هل تستخدم جوالك لمتابعة الأخبار؟

☐ always  
☐ often  
☐ Sometimes  
☐ rarely  
☐ never

 If never Is Selected, Then Skip To Please choose your gender  
الجنس 

4



**what kind of news sources do you use using your smartphone? (You can choose more than one)**  
ما مصادر الأخبار التي تتابعها في الجوال؟

☐ Online News channels (online broadcasting) بث مباشر للقنوات التلفزيونية  
☐ websites (newspaper websites - news channels website - electronic newspapers - forums ... etc) مواقع الإنترنت الإخبارية المختلفة  
☐ Email  
☐ facebook  
☐ twitter  
☐ youTube  
☐ other

5



**From what media do you get news using your smartphone?**

ما وسائل الإعلام التي تتابعها؟

- ☐ Arab media more than Western media وسائل الإعلام العربية أكثر من وسائل الإعلام الغربية
- ☐ Western media more than Arab media وسائل الإعلام الغربية أكثر من وسائل الإعلام العربية
- ☐ Arab media only وسائل الإعلام العربية فقط
- ☐ western media only وسائل الإعلام الغربية فقط
- ☐ other

6



**what types of news are you interested to get through your smartphone? (you can choose more than one choice)**

ما أنواع الأخبار التي تهتم بمتابعتها في جوالك؟

- ☐ Politics
- ☐ local news about Saudi Arabia
- ☐ local news about the US
- ☐ social
- ☐ Arts and celebrities
- ☐ sport
- ☐ health
- ☐ education
- ☐ business
- ☐ other

7



**In what format do you prefer to get news using your smartphone?**

بأي صيغة تفضل متابعة الأخبار في جوالك؟

- ☐ News with videos
- ☐ News with images
- ☐ News with graphics
- ☐ News with text only

8



To what extent do you agree with the following sentence?

إلى أي مدى تتفق مع العبارة التالية؟

**I'm getting more news after using the smartphone.**

استخدامي للجوال الذكي جعلني أتابع الأخبار أكثر

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Agree
- ☐ Strongly Agree

Page Break

9



To what extent do you agree with the following sentence?

**using smartphone helps me to be more connected to my University community**

استخدامي للجوال الذكي جعلني متوصلا مع محيط مجتمعي الجامعي

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Agree
- ☐ Strongly Agree

Page Break

10



To what extent do you agree with the following sentence?

**using smartphone helps me to be more connected to my Saudi community in the US.**

استخدامي للجوال الذكي جعلني متوصلا مع محيط مجتمعي السعودي الموجود في أمريكا

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Agree
- ☐ Strongly Agree

Page Break

11



To what extent do you agree with the following sentence?

**using smartphone helps me to be more connected to my Saudi community in Saudi Arabia.**

استخدامي للجوال الذكي جعلني متوصلا مع محيط مجتمعي في السعودية

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Agree
- ☐ Strongly Agree



13



To what extent do you agree with the following sentence?  
I'm interested in news more after using smartphone

أصبحت مهتما بمتابعة الأخبار أكثر بعد استخدامي للهواتف الذكية

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Agree
- ☐ Strongly Agree

14



To what extent do you agree with the following sentence?  
I'll feel isolated without my smartphone

لولا استخدامي للهاتف الذكي لأصبحت معزولا عما يدور حول

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Agree
- ☐ Strongly Agree

15



To what extent do you agree with the following sentence?  
I use my smartphone to check news first thing in the morning

أستخدم الجوال لمتابعة الأخبار عندما أصحو من النوم

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Agree
- ☐ Strongly Agree

16



To what extent do you agree with the following sentence?  
I'm sharing more news after using smartphones

أشارك الآخرين تبادل الأخبار أكثر بعد استخدامي للهواتف الذكية

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Agree
- ☐ Strongly Agree

18



**How often do you share news link in Facebook using your smartphone?**

ما مدى إرسالك روابط إخبارية عبر الفيسبوك مستخدماً جوالك

- ☐ Never
- ☐ few times
- ☐ always
- ☐ very often

Page Break

19



**How often do you share news link in Email using your smartphone?**

ما مدى إرسالك روابط إخبارية عبر الإيميل مستخدماً جوالك

- ☐ Never
- ☐ few times
- ☐ always
- ☐ very often

Page Break

20



**How often did you upload videos in YouTube as news using your smartphone?**

ما مدى تحميلك لمقاطع فيديو في اليوتيوب كأخبار مستخدماً جوالك

- ☐ Never
- ☐ few times
- ☐ always
- ☐ very often

Page Break

21




**From the following, what do you consider your first source of news?**



ما مصدرك الإخباري الرئيس من المصادر التالية؟

- ☐ T.V
- ☐ Radio
- ☐ Newspaper
- ☐ smartphone
- ☐ computer
- ☐ laptop
- ☐ ibad
- ☐ ipod
- ☐ other

Page Break

23





Please choose your gender


الجنس



☐ Male

☐ Female

Page Break

22





What is your age?

العمر

☐ 18 - 25

☐ 25 - 30


☐ 30 - 35



☐ 35 - 40

☐ above 40

Page Break

24





What is your education status?

المستوى الدراسي الحالي

☐ English level

☐ Undergraduate student

☐ Graduate student

Page Break

## Appendix B

### Online Survey on Qulatric

Q1 Informed Consent Form You are invited to participate in this research study. Block Options

**Informed Consent Form**

You are invited to participate in this research study. The following information is provided in order to help you to make an informed decision whether or not to participate. If you have any questions please do not hesitate to ask. You are being asked to participate because you are a Saudi Arabian student studying in the United States.

The purpose of this research is to investigate the use of smartphones for seeking, receiving, and sharing news. Specifically to what extent do Saudi Arabian students that are studying in the United States utilize technology to keep up on news from their native countries as well as international news? The specific focus of this research will be on the use of the smartphone as a news monitoring device. The survey will also collect ancillary data on the use of other forms of technology such as iPads, iPods, laptops, desktops and traditional media. This study is being done for my doctoral dissertation.

Participation in this study will require approximately 15 minutes of your time. Participation is completely voluntary and all responses are anonymous. You will simply complete the survey that includes demographic information and related questions in your smartphone usage. There are no known risks or discomforts associated with this research.

You may find the learning experience enjoyable and the self assessment of smartphone usage may be helpful as you stay connected with the news of Saudi Arabia and your region. The information gained from this study may help us to better understand the effectiveness of the use of smartphones as a source of news.

Your participation in this study is voluntary. You are free to decide not to participate in this study or to withdraw at any time without adversely affecting your relationship with the researcher or the Saudi Cultural Mission. Your decision will not result in any loss of benefits to which you are otherwise entitled. If you choose to participate, you may withdraw at any time by simply not continuing the survey. Upon your withdrawal the uncompleted survey will be discarded and not be considered for use in the data collection. If you choose to participate, all information will be anonymous and will have no bearing on your academic standing or services you receive from the Saudi Cultural Mission. The information obtained in the study may be published in scientific journals or presented at scientific meetings.

Researcher: Ali D. Alanazi  
Rank/Position: Doctoral Candidate  
Chairperson: Dr. Mark Piwinsky  
Department Affiliation: Communications Media and Instructional Technology  
Campus Address: 121 Stouffer Hall  
Indiana, PA 15705  
Phone: (724)357-2492

This project has been approved by the Indiana University of Pennsylvania Institutional Review Board for the Protection of Human Subjects (Phone: 724/357-7730).

**1. Are you a Saudi Student studying in the U.S. and willing to participate in this study?**  
هل أنت طالب سعودي (طالبة سعودية) تدرس في أمريكا ولديك الرغبة في المشاركة في هذا الاستبيان؟

☐ Yes نعم  
☐ No لا

If No is Selected, Then Skip To End of Survey Skip Logic

Q2

**From the following, what are your news sources?**  
(You can choose more than one answer)

مما يلي، ما مصادرك للأخبار؟  
(يمكنك اختيار أكثر من إجابة)

☐ T.V. تلفاز
 ☐ Radio راديو
 ☐ Newspaper صحف
 ☐ Desktop الحاسب الآلي
 ☐ Laptop اللابتوب
 ☐ the smartphone الهاتف الذكي
 ☐ iPad الآيباد
 ☐ iPod الآيپود
 ☐ E-reader
 ☐ Other أخرى

Page Break

Q3

**Do you use a smartphone?**  
هل تستخدم الهاتف الذكي؟

☐ Yes نعم
 ☐ No لا

If No ٧ Is Selected, Then Skip To Please choose your gender... أرىجو اخ

Skip Logic

Page Break

Q4

**What do you use your smartphone for from the following?**  
فيما تستخدم هاتفك الذكي مما يلي من استخدامات؟

☐ Interpersonal communication (Calls, text messaging) الاتصالات الشخصية
 ☐ Mobile messaging applications (WhatsApp, BB messenger, Tango, and similar apps) الماسنجر
 ☐ The Internet (seeking for information) الإنترنت: البحث عن المعلومات العامة
 ☐ Smartphone different applications استخدام تطبيقات الهاتف الذكي المختلفة
 ☐ Shopping التسوق
 ☐ Entertainment (Music, video games, Movies) الترفيه: موسيقى، ألعاب، أفلام
 ☐ Social sites (Facebook, Twitter, YouTube, and similar social networking sites) مواقع التواصل الاجتماعي

Page Break

Q5

\*

**How interested are you in keeping up with the news?**

ما مدى اهتمامك بمتابعة الأخبار؟

☐ Very interested مهم جداً  
☐ Interested مهم  
☐ Less interested قليل الاهتمام  
☐ Not interested لست مهتماً

Page Break

Q6

\*

**Do you use your smartphone to get news?**

هل تستخدم هاتفك الذكي للحصول على الأخبار؟

☐ Always دائماً  
☐ Often غالباً  
☐ Sometimes أحياناً  
☐ Rarely نادراً  
☐ Never لا

If **Never** is Selected, Then Skip To **Please choose your gender** ...أرجو اخ

Skip Logic

Page Break

Q7

\*

**What would attract you to use your smartphone to get news?**

	Strongly Disagree لا أتفق بشدة	Disagree لا أتفق	Agree أتفق	Strongly Agree أتفق بشدة
I find many different sources of news أجد العديد من مصادر الأخبار	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The availability of Arabic news توفر الأخبار باللغة العربية	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
It is easy to get news any time سهولة الحصول على الأخبار في أي وقت	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The news is current and updated الأخبار انية ومحدثة	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I can interact with news by commenting and sharing my opinion يمكنني التفاعل مع الأخبار عبر التعليق ومشاركة الآراء	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Page Break

Q8



To what extent do you agree with the following sentences?

إلى أي مدى تتفق مع الجمل التالية؟

	Strongly Disagree لا أتفق بشدة	Disagree لا أتفق	Agree أتفق	Strongly Agree أتفق بشدة
I'm interested in news more after using smartphone اهتممت أكثر بالأخبار بعد استخدامي للهاتف الذكي	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Smartphone is my main source of news الهاتف الذكي مصدري الرئيس للأخبار	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I'm getting more news after using the smartphone أتلقى أخباراً أكثر بعد استخدامي للهاتف الذكي	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel overwhelmed by the amount of news I am consuming after using the smartphone كمية الأخبار التي استهلكها بعد استخدامي للهاتف الذكي تشعرني بالتشبع منها	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I use my smartphone to check news before going to sleep and first thing in the morning أستخدم هاتفي الذكي للاطلاع على الأخبار قبل نومي وأول شيء في الصباح	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel isolated if I am without my smartphone أشعر بالعزلة بدون هاتفي الذكي	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q9



How many times do you use your smartphone to check news in 24 hour period?

كم مرة تستخدم هاتفك الذكي لمتابعة الأخبار خلال الأربع وعشرين ساعة في اليوم؟

- ☐ 1-5 times
- ☐ 6-10 times
- ☐ 11-15 times
- ☐ 16-20 times
- ☐ 21-25 times
- ☐ More than 25 times

Q10



Using smartphone for news helps me to be more connected to the following communities:

(1 being least amount of connectivity and 10 being the most amount of connectivity)

استخدام الهاتف الذكي جعلني متواصلاً أكثر مع المجتمعات التالية

1 أقل درجة من التواصل و 10 أعلى درجة من التواصل

1 2 3 4 5 6 7 8 9 10

Q10



Using smartphone for news helps me to be more connected to the following communities:  
(1 being least amount of connectivity and 10 being the most amount of connectivity)

استخدام الهاتف الذكي جعلني متواصلاً أكثر مع المجتمعات التالية  
1 أقل درجة من التواصل و 10 أعلى درجة من التواصل

	1	2	3	4	5	6	7	8	9	10
Local American community المجتمع الأمريكي المحلي	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Local Saudi Arabian community المجتمع السعودي المحلي في أمريكا	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Community in Saudi Arabia المجتمع السعودي في المملكة	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q11



To what extent do you agree with the following sentence?  
(I'm sharing more news after using smartphones)

إلى أي مدى تتفق مع الجملة التالية؟

(أقوم بمشاركة الأخبار مع الغير أكثر بعد استخدامي للهاتف الذكي)

- ☐ Strongly Disagree لا أتفق بشدة
- ☐ Disagree لا أتفق
- ☐ Agree أتفق
- ☐ Strongly Agree أتفق بشدة

Q12



How often do you share news links in the following social networking sites?

ما مدى مشاركتك للروابط الإخبارية في مواقع التواصل الاجتماعي التالية؟

	Never لا أشارك أبداً	Rarely نادراً	Sometimes أحياناً	Often كثيراً	Very often أحياناً كثيرة جداً
Twitter	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Facebook	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Email	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
WhatsApp	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
YouTube	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
BB messenger (Blackberry)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



Q13



What types of news are you interested to get through your smartphone?

ما نوعية الأخبار التي تهتم بتلقيها عبر هاتفك الذكي؟

	Arab media only وسائل الإعلام العربية فقط	Arab media more than the western media وسائل الإعلام العربية أكثر من الغربية	Both of them equally كلاهما بالتساوي	Western media only وسائل الإعلام الغربية أكثر من العربية	Western media more than Arab media وسائل الإعلام الغربية فقط
Politics الأخبار السياسية	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Local news about Saudi Arabia الأخبار المحلية السعودية	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Local news about the US الأخبار المحلية الأمريكية	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Social news الأخبار الاجتماعية	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Arts and celebrities أخبار الفن والمشاهير	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sports news الأخبار الرياضية	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Health news الأخبار الطبية	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Education أخبار التعليم	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Business الأخبار الاقتصادية	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q14



What language do you prefer to read news in using your smartphone? (1 is Arabic only, 10 is English only)

ما اللغة التي تفضلها لقراءة الأخبار مستخدماً الهاتف الذكي؟  
(1 عربي فقط 10 إنجليزي فقط)

Arabic Only اللغة العربية فقط	English Only اللغة الإنجليزية فقط
1	10
<input type="radio"/>	<input type="radio"/>
2	
<input type="radio"/>	
3	
<input type="radio"/>	
4	
<input type="radio"/>	
5	
<input type="radio"/>	
6	
<input type="radio"/>	
7	
<input type="radio"/>	
8	
<input type="radio"/>	
9	
<input type="radio"/>	

Q15



To what extent do you agree with the following sentence?

(I would be more interested in U.S. local news if was seeking news only from traditional media sources)

إلى أي مدى تتفق مع الجملة التالية؟

ساكون مهتماً أكثر بالأخبار المحلية الأمريكية لو كنت أحصل على الأخبار من وسائل (الإعلام التقليدية فقط)

- ☐ Strongly Disagree لا أتفق بشدة
- ☐ Disagree لا أتفق
- ☐ Agree أتفق
- ☐ Strongly Agree أتفق بشدة

Q16



To what extent do you agree with the following sentence?

(I would be more involved in the American culture if I did not use the smartphone)

إلى أي مدى تتفق مع الجملة التالية؟

(لولا استخدام الهاتف الذكي لكنت مرتبطاً بالثقافة الأمريكية أكثر)

- ☐ Strongly Disagree لا أتفق بشدة
- ☐ Disagree لا أتفق
- ☐ Agree أتفق
- ☐ Strongly Agree أتفق بشدة

Q17



Please choose your gender

أرجو اختيار الجنس

- ☐ Male ذكر
- ☐ Female أنثى

Page Break

Q18
⊞

⚙️

**What is your age?**

ما عمرك؟

☐ 18 - 25  
☐ 26 - 30  
☐ 31 - 35  
☐ 36 - 40  
☐ Above 40

Page Break

Q19
⊞

⚙️

**22. Are you a current ESL student?**

هل أنت في مرحلة دراسة اللغة الإنجليزية حالياً؟

☐ Yes نعم  
☐ No لا

Q20
⊞

⚙️

**What is your intended level of education?**

ما المستوى التعليمي الذي تنوي الحصول عليه؟

☐ Bachelor بكالوريوس  
☐ Masters ماجستير  
☐ Ph.D. دكتوراه  
☐ Medical fellowships زمالة طبية

Q21
⊞

⚙️

**What State State do you currently study in?**

ما الولاية التي تدرس فيها حالياً؟

📄 Copy Items From...

+
Create a New Item
⌵

Appendix C  
Agreement from SACM to Help in Distributing the Survey

Hadear Abdou (habdou@sacm.org)  
09/18/2013 - 6:13 AM

To: ALI - ALANAZI  
Cc: Mark.Piwinsky@iup.edu

Hello Mr. Piwinsky,

I hope this email finds you doing well. My name is Hadear Abdou and I am a Cultural Advisor at the Saudi Cultural Mission. This email is to confirm that the cultural mission will be able to assist Ali D. Alanazi in distributing his survey once he gets his IRB Approval Letter.

Please let me know if you need any further information from me or have any questions.

Thank you

Best Regards,  
Mrs. Hadear Abdou • Saudi Arabian Cultural Mission • Cultural Advisor • P. 571.327.2565 • F.  
571.327.2761

Appendix D  
Chair Letter to SACM to Help in Distributing the Survey



Indiana University of Pennsylvania  
[www.iup.edu](http://www.iup.edu)

Department of Communications Media  
Stouffer Hall, Room 121  
1175 Maple Street  
Indiana, Pennsylvania 15705-1058

P 724-357-2492  
F 724-357-5503  
[www.iup.edu/commmedia](http://www.iup.edu/commmedia)

Subject: Support for Doctoral Dissertation Research  
Date: September 12, 2013  
From: Dr. Mark J. Piwinsky, Professor and Chair  
To: Dr. Mohammed Aleissa  
Attache of Saudi Arabian Cultural Mission

Mr. Ali Alanazi, a student in our Ph.D. program in Communications Media and Instructional Technology, is currently beginning his dissertation research. The title of his dissertation is - The Use of the Smartphones as a Resource for News among Saudi Arabian Students in the United States. I am serving as the chair of his dissertation committee.

To collect the data for his dissertation, Mr. Alanazi would like to conduct a web-based survey of Saudi students who are studying in the United States. The survey will be anonymous so that individual responses cannot be identified. A copy of the survey is attached.

Mr. Alanazi has advised me that the Cultural Mission has an email list that can be used to contact Saudi students in the United States. We would greatly appreciate it if you would be able to assist him in his research by sending an email to the students on your list asking them to participate in this study.

Thank you for your time and consideration. Your assistance will be invaluable in helping Mr. Alanazi to complete his research and his degree.

Cc: Mr. Ali Alanazi, Ph.D. Candidate

## Appendix E

### Text Sent Via SACM Facebook Page

بسم الله الرحمن الرحيم

السلام عليكم ورحمة الله وبركاته،  
أعمل حالياً على دراسة بحثية لإكمال متطلبات درجة الدكتوراه. تهتم الدراسة في البحث عن كيفية استخدام الطلاب السعوديين الدارسين في الولايات المتحدة للهواتف الذكية في البحث عن الأخبار، واستقبالهم لها، ومشاركتهم إياها مع الآخرين. مشاركتك في هذا الدراسة محل تقدير كبير علماً بأن المشاركة تطوعية وتستغرق من عشر إلى خمسة عشر دقيقة. أرجو الضغط على رابط الاستبيان في حال رغبتك في المشاركة.  
مع التحية،

علي بن ضميان العنزي  
مرشح لنيل درجة الدكتوراه  
برنامج الدكتوراه في وسائل الاتصال وتقنيات التعليم  
جامعة إنديانا بنسلفانيا – قسم الإعلام

Greetings,

I am conducting a research study in partial fulfillment of my Ph.D. I am interested in investigating how Saudi Arabian Students studying in the United States utilize their Smartphones when seeking, receiving, and sharing news. Your participation is greatly appreciated although participation is completely voluntary and takes about 10-15 minutes to complete. If you are willing to participate in this study, please proceed by clicking the survey link.

Sincerely,

Ali D. Alanazi

Doctoral candidate

Communication Media and Instructional Technology Ph.D. program

Indiana University of Pennsylvania - Department of Communications Media

This project has been approved by the Indiana University of Pennsylvania Institutional Review Board for the Protection of Human Subjects (Phone: 724/357-7730).

Appendix F  
Survey Link on SACM Facebook Page



## Appendix G

Survey link on SACM Twitter Account





## Appendix H

### Informed Consent Form and the Survey

#### Informed Consent Form

You are invited to participate in this research study. The following information is provided in order to help you to make an informed decision whether or not to participate. If you have any questions please do not hesitate to ask. You are being asked to participate because you are a Saudi Arabian student studying in the United States.

The purpose of this research is to investigate the use of smartphones for seeking, receiving, and sharing news. Specifically to what extent do Saudi Arabian students that are studying in the United States utilize technology to keep up on news from their native countries as well as international news? The specific focus of this research will be on the use of the smartphone as a news monitoring device. The survey will also collect ancillary data on the use of other forms of technology such as iPads, iPods, laptops, desktops and traditional media. This study is being done for my doctoral dissertation.

Participation in this study will require approximately 15 minutes of your time. Participation is completely voluntary and all responses are anonymous. You will simply complete the survey that includes demographic information and related questions in your smartphone usage. There are no known risks or discomforts associated with this research.

You may find the learning experience enjoyable and the self-assessment of smartphone usage may be helpful as you stay connected with the news of Saudi Arabia and your region. The information gained from this study may help us to better understand the effectiveness of the use of smartphones as a source of news.

Your participation in this study is voluntary. You are free to decide not to participate in this study or to withdraw at any time without adversely affecting your relationship with the researcher or the Saudi Cultural Mission. Your decision will not result in any loss of benefits to which you are otherwise entitled. If you choose to participate, you may withdraw at any time by simply not continuing the survey. Upon your withdrawal the uncompleted survey will be discarded and not be considered for use in the data collection. If you choose to participate, all information will be anonymous and will have no bearing on your academic standing or services you receive from the Saudi Cultural Mission. The information obtained in the study may be published in scientific journals or presented at scientific meetings.

If you are willing to participate in this study, please proceed by clicking the survey link.

Researcher: Ali D. Alanazi

Rank/Position: Doctoral Candidate

Chairperson: Dr. Mark Piwinsky

Department Affiliation: Communications Media and Instructional Technology

Campus Address: 121 Stouffer Hall

Indiana, PA 15705

Phone: 724/357-2492

This project has been approved by the Indiana University of Pennsylvania Institutional Review Board for the Protection of Human Subjects (Phone: 724/357-7730).

1. Are you a Saudi Student studying in the U.S. and willing to participate in this study?

هل أنت طالب سعودي (طالبة سعودية) تدرس في أمريكا ولديك الرغبة في المشاركة في هذا الاستبيان؟

☐ Yes نعم ☐ No لا

2. From the following, what are your news sources?  
(You can choose more than one answer)

مما يلي، ما مصادر لك للأخبار؟

(يمكنك اختيار أكثر من إجابة)

- ☐ T.V تلفاز ☐ Radio راديو ☐ Newspaper صحف ☐ Smartphone الهاتف الذكي ☐ Desktop الحاسب  
الآلي  
☐ Laptop اللابتوب ☐ iPad الآيباد ☐ iPod الآيبود ☐ Other أخرى ( )

3. Do you use a smartphone? هل تستخدم الهاتف الذكي؟

- ☐ Yes نعم ☐ No لا

(If the answer is no Qualtrics will automatically direct the participant to question number 17)

4. What do you use your smartphone for from the following?

فيما تستخدم هاتفك الذكي مما يلي من استخدامات؟

- ☐ Interpersonal communication (Calls, text messaging) الاتصالات الشخصية  
☐ Mobile messaging applications (WhatsApp, BB messenger, Tango, and similar apps) الماسنجر  
☐ The Internet (seeking for information) الإنترنت: البحث عن المعلومات العامة  
☐ Smartphone different applications استخدام تطبيقات الهاتف الذكي المختلفة  
☐ Shopping التسوق  
☐ Entertainment (Music, video games, Movies) الترفيه: موسيقى، ألعاب، أفلام  
☐ Social sites (Facebook, Twitter, YouTube, and similar social networking sites) مواقع التواصل الاجتماعي

5. How interested are you in keeping up with the news?

ما مدى اهتمامك بمتابعة الأخبار؟

- ☐ Very interested مهتم جداً ☐ interested مهتم ☐ less interested قليل الاهتمام ☐ not interested لست مهتماً

6. Do you use your smartphone to get news?

هل تستخدم هاتفك الذكي للحصول على الأخبار؟

- ☐ Always دائماً ☐ Often غالباً ☐ Sometimes أحياناً ☐ Rarely نادراً ☐ Never لا

(If the answer is never Qualtrics will automatically direct the participant to question number 17)

7. What would attract you to use your smartphone to get news?

a. I find many different sources of news أجد العديد من مصادر الأخبار

- ☐ Strongly Disagree لا أتفق بشدة ☐ Disagree لا أتفق ☐ Agree أتفق ☐ Strongly Agree أتفق بشدة

b. The availability of Arabic news توفر الأخبار باللغة العربية

- ☐ Strongly Disagree لا أتفق بشدة ☐ Disagree لا أتفق ☐ Agree أتفق ☐ Strongly Agree أتفق بشدة

c. It is easy to get news any time سهولة الحصول على الأخبار في أي وقت

- ☐ Strongly Disagree لا أتفق بشدة ☐ Disagree لا أتفق ☐ Agree أتفق ☐ Strongly Agree أتفق بشدة

d. The news is current and updated الأخبار آنية ومحدثة

- ☐ Strongly Disagree لا أتفق بشدة ☐ Disagree لا أتفق ☐ Agree أتفق ☐ Strongly Agree أتفق بشدة

e. I can interact with news by commenting and sharing my opinion يمكنني التفاعل مع الأخبار عبر التعليق ومشاركة الآراء

- ☐ Strongly Disagree لا أتفق بشدة ☐ Disagree لا أتفق ☐ Agree أتفق ☐ Strongly Agree أتفق بشدة

8. To what extent do you agree with the following sentences?

إلى أي مدى تتفق مع الجمل التالية؟

- a. I'm interested in news more after using smartphone الهاتف الذكي اهتمامت أكثر بالأخبار بعد استخدامي للهاتف الذكي  
☐ Strongly Disagree لا أتفق بشدة ☐ Disagree لا أتفق ☐ Agree أتفق ☐ Strongly Agree أتفق بشدة
- b. Smartphone is my main source of news الهاتف الذكي مصدري الرئيس للأخبار  
☐ Strongly Disagree لا أتفق بشدة ☐ Disagree لا أتفق ☐ Agree أتفق ☐ Strongly Agree أتفق بشدة
- c. I'm getting more news after using the smartphone أكثرى أخباراً أكثر بعد استخدائي للهاتف الذكي  
☐ Strongly Disagree لا أتفق بشدة ☐ Disagree لا أتفق ☐ Agree أتفق ☐ Strongly Agree أتفق بشدة
- d. I feel overwhelmed by the amount of news I am consuming after using the smartphone كمية الأخبار التي أستهلكها بعد استخدامي للهاتف الذكي تشعرني بالتشبع منها  
☐ Strongly Disagree لا أتفق بشدة ☐ Disagree لا أتفق ☐ Agree أتفق ☐ Strongly Agree أتفق بشدة
- e. I use my smartphone to check news before going to sleep and first thing in the morning أستخدم هاتفي الذكي للاطلاع على الأخبار قبل نومي وأول شيء في الصباح  
☐ Strongly Disagree لا أتفق بشدة ☐ Disagree لا أتفق ☐ Agree أتفق ☐ Strongly Agree أتفق بشدة
- f. I feel isolated if I am without my smartphone أشعر بالعزلة بدون هاتفي الذكي  
☐ Strongly Disagree لا أتفق بشدة ☐ Disagree لا أتفق ☐ Agree أتفق ☐ Strongly Agree أتفق بشدة

9. How many times do you use your smartphone to check news in 24 hour period?

كم مرة تستخدم هاتفك الذكي لمتابعة الأخبار خلال الأربع وعشرين ساعة في اليوم؟

- ☐ 1-5 ☐ 6-10 ☐ 11-15 ☐ 16-20 ☐ 21- 25 ☐ More than 25

10. Using smartphone for news helps me to be more connected to the following communities:

(1 being least amount of connectivity and 10 being the most amount of connectivity)

1 أقل درجة من التواصل و 10 أعلى درجة من التواصل

استخدام الهاتف الذكي جعلني متواصلاً أكثر مع المجتمعات التالية:

A. Local American community. المجتمع الأمريكي المحلي

- ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐ 9 ☐ 10

B. Local Saudi Arabian community. المجتمع السعودي المحلي في أمريكا

- ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐ 9 ☐ 10

C. Community in Saudi Arabia المجتمع السعودي في المملكة

- ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐ 9 ☐ 10

11. To what extent do you agree with the following sentence?

(I'm sharing more news after using smartphones)

إلى أي مدى تتفق مع الجمل التالية؟ (أشارك الأخبار مع غير أكثر بعد استخدامي للهاتف الذكي)

- ☐ Strongly Disagree لا أتفق بشدة ☐ Disagree لا أتفق ☐ Agree أتفق ☐ Strongly Agree أتفق بشدة

12. How often do you share news links in the following social networking sites?

ما مدى مشاركتك للروابط الإخبارية في مواقع التواصل الاجتماعي التالية:

Twitter:

- ☐ Never أبداً ☐ Rarely نادراً ☐ sometimes أحياناً ☐ Often كثيراً ☐ Very often كثيراً جداً

Facebook:

- ☐ Never أبداً ☐ Rarely نادراً ☐ sometimes أحياناً ☐ Often كثيراً ☐ Very often كثيراً جداً

Email:

- ☐ Never لا أشارك أبداً جداً ☐ Rarely نادراً ☐ sometimes أحياناً ☐ Often أحياناً كثيرة ☐ Very often أحياناً كثيرة جداً

YouTube:

- ☐ Never لا أشارك أبداً جداً ☐ Rarely نادراً ☐ sometimes أحياناً ☐ Often أحياناً كثيرة ☐ Very often أحياناً كثيرة جداً

WhatsApp:

- ☐ Never لا أشارك أبداً جداً ☐ Rarely نادراً ☐ sometimes أحياناً ☐ Often أحياناً كثيرة ☐ Very often أحياناً كثيرة جداً

BB messenger (Blackberry):

- ☐ Never لا أشارك أبداً جداً ☐ Rarely نادراً ☐ sometimes أحياناً ☐ Often أحياناً كثيرة ☐ Very often أحياناً كثيرة جداً

13. What types of news are you interested to get through your smartphone?

ما نوعية الأخبار التي تهتم بتلقيها عبر هاتفك الذكي؟

☐ Politics الأخبار السياسية

- ☐ Arab media only وسائل الإعلام العربية فقط  
☐ Arab media more than the western media وسائل الإعلام العربية أكثر من الغربية  
☐ Western media only وسائل الإعلام الغربية أكثر من العربية  
☐ Western media more than Arab media وسائل الإعلام الغربية فقط  
☐ Both of them equally كلاهما بالتساوي

☐ Local news about Saudi Arabia الأخبار المحلية السعودية

- ☐ Arab media only وسائل الإعلام العربية فقط  
☐ Arab media more than the western media وسائل الإعلام العربية أكثر من الغربية  
☐ Western media only وسائل الإعلام الغربية أكثر من العربية  
☐ Western media more than Arab media وسائل الإعلام الغربية فقط  
☐ Both of them equally كلاهما بالتساوي

☐ Local news about the US الأخبار المحلية الأمريكية

- ☐ Arab media only وسائل الإعلام العربية فقط  
☐ Arab media more than the western media وسائل الإعلام العربية أكثر من الغربية  
☐ Western media only وسائل الإعلام الغربية أكثر من العربية  
☐ Western media more than Arab media وسائل الإعلام الغربية فقط  
☐ Both of them equally كلاهما بالتساوي

☐ Social news الأخبار الاجتماعية

- ☐ Arab media only وسائل الإعلام العربية فقط  
☐ Arab media more than the western media وسائل الإعلام العربية أكثر من الغربية  
☐ Western media only وسائل الإعلام الغربية أكثر من العربية  
☐ Western media more than Arab media وسائل الإعلام الغربية فقط  
☐ Both of them equally كلاهما بالتساوي

☐ Arts and celebrities أخبار الفن والمشاهير

- ☐ Arab media only وسائل الإعلام العربية فقط

- ☐ Arab media more than the western media وسائل الإعلام العربية أكثر من الغربية
- ☐ Western media only وسائل الإعلام الغربية أكثر من العربية
- ☐ Western media more than Arab media وسائل الإعلام الغربية فقط
- ☐ Both of them equally كلاهما بالتساوي
- ☐ Sports الأخبار الرياضية
  - ☐ Arab media only وسائل الإعلام العربية فقط
  - ☐ Arab media more than the western media وسائل الإعلام العربية أكثر من الغربية
  - ☐ Western media only وسائل الإعلام الغربية أكثر من العربية
  - ☐ Western media more than Arab media وسائل الإعلام الغربية فقط
  - ☐ Both of them equally كلاهما بالتساوي
- ☐ Health الأخبار الطبية
  - ☐ Arab media only وسائل الإعلام العربية فقط
  - ☐ Arab media more than the western media وسائل الإعلام العربية أكثر من الغربية
  - ☐ Western media only وسائل الإعلام الغربية أكثر من العربية
  - ☐ Western media more than Arab media وسائل الإعلام الغربية فقط
  - ☐ Both of them equally كلاهما بالتساوي
- ☐ Education أخبار التعليم
  - ☐ Arab media only وسائل الإعلام العربية فقط
  - ☐ Arab media more than the western media وسائل الإعلام العربية أكثر من الغربية
  - ☐ Western media only وسائل الإعلام الغربية أكثر من العربية
  - ☐ Western media more than Arab media وسائل الإعلام الغربية فقط
  - ☐ Both of them equally كلاهما بالتساوي
- ☐ Business الأخبار الاقتصادية
  - ☐ Arab media only وسائل الإعلام العربية فقط
  - ☐ Arab media more than the western media وسائل الإعلام العربية أكثر من الغربية
  - ☐ Western media only وسائل الإعلام الغربية أكثر من العربية
  - ☐ Western media more than Arab media وسائل الإعلام الغربية فقط
  - ☐ Both of them equally كلاهما بالتساوي

14. What language do you prefer to read news in using your smartphone?

(1 is Arabic only, 10 is English only)

ما اللغة التي تفضلها لقراءة الأخبار مستخدماً الهاتف الذكي؟ (1 عربي فقط 10 إنجليزي فقط)

Arabic ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐ 9 ☐ 10 English

15. To what extent do you agree with the following sentence?

(I would be more interested in U.S. local news if was seeking news only from traditional media sources)

إلى أي مدى تتفق مع الجملة التالية؟ (سأكون مهتماً أكثر بالأخبار المحلية الأمريكية لو كنت أحصل على الأخبار من وسائل الإعلام التقليدية فقط)

☐ Strongly Disagree لا أتفق بشدة ☐ Disagree لا أتفق ☐ Agree أتفق ☐ Strongly Agree أتفق بشدة

16. To what extent do you agree with the following sentence?

(I would be more involved in the American culture if I did not use the smartphone)

إلى أي مدى تتفق مع الجملة التالية؟ (لولا استخدام الهاتف الذكي لكنت مرتبطاً بالثقافة الأمريكية أكثر)

☐ Strongly Disagree لا أتفق بشدة ☐ Disagree لا أتفق ☐ Agree أتفق ☐ Strongly Agree أتفق بشدة

17. Please choose your gender أَرَجُو اختيار الجنس

☐ Male ذكر ☐ Female أنثى

18. What is your age?

☐ 18 –25 ☐ 26- 30 ☐ 31-35 ☐ 36-40 ☐ Above 40

19. Are you a current ESL student? هل أنت في مرحلة دراسة اللغة الإنجليزية حالياً

☐ Yes نعم ☐ No لا

20. What is your intended level of education? ما المستوى التعليمي الذي تنوي الحصول عليه

☐ Bachelor بكالوريوس ☐ Masters ماجستير ☐ Ph.D. دكتوراه ☐ Medical fellowships زمالة طبية

21. What State States do you currently study in? ( ما الولاية التي تدرس فيها حالياً )

Thank you for your participation

# Appendix I

## IRB Approval Form



Indiana University of Pennsylvania  
[www.iup.edu](http://www.iup.edu)

Institutional Review Board for the  
Protection of Human Subjects  
School of Graduate Studies and Research  
Stright Hall, Room 113  
210 South Tenth Street  
Indiana, Pennsylvania 15705-1048

P 724-357-7730  
F 724-357-2715  
[irb-research@iup.edu](mailto:irb-research@iup.edu)  
[www.iup.edu/irb](http://www.iup.edu/irb)

October 16, 2013

Ali D. Alanazi  
122 Sandro Street  
Indiana, PA 15701

Dear Mr. Alanazi:

Your proposed research project, "The Use of the Smartphones as a Resource for News among Saudi Arabian Students in the United States," (Log No. 13-250) has been reviewed by the IRB and is approved. In accordance with 45CFR46.101 and IUP Policy, your project is exempt from continuing review.

It is also important for you to note that IUP adheres strictly to Federal Policy that requires you to notify the IRB promptly regarding:

1. any additions or changes in procedures you might wish for your study (additions or changes must be approved by the IRB before they are implemented),
2. any events that affect the safety or well-being of subjects, and
3. any modifications of your study or other responses that are necessitated by any events reported in (2).

The IRB may review or audit your project at random or for cause. In accordance with IUP Policy and Federal Regulation (45CFR46.113), the Board may suspend or terminate your project if your project has not been conducted as approved or if other difficulties are detected.

Although your human subjects review process is complete, the School of Graduate Studies and Research requires submission and approval of a Research Topic Approval Form (RTAF) before you can begin your research. If you have not yet submitted your RTAF, the form can be found at <http://www.iup.edu/page.aspx?id=91683>.

I wish you success as you pursue this important endeavor.

Sincerely,

John A. Mills, Ph.D., ABPP  
Chairperson, Institutional Review Board for the Protection of Human Subjects  
Professor of Psychology

JAM:jeb

Cc: Dr. Mark Piwinsky, Dissertation Advisor  
Ms. Brenda Boal, Secretary

## Appendix J

### RTAF Approval Form



Indiana University of Pennsylvania  
[www.iup.edu](http://www.iup.edu)

Office of Assistant Dean for Research  
School of Graduate Studies and Research  
Stright Hall, Room 113  
210 South Tenth Street  
Indiana, Pennsylvania 15705-1048

P 724-357-7730  
F 724-357-2715  
[www.iup.edu/research](http://www.iup.edu/research)

October 22, 2013

Ali D. Alanazi  
122 Sandro Street  
Indiana, PA 15701

Dear Mr. Alanazi:

Now that your research project has been approved by the Institutional Review Board for the Protection of Human Subjects, I have reviewed your Research Topic Approval Form and approved it.

**The Thesis/Dissertation Manual, additional resources, and information to help you start writing can be found at <http://www.iup.edu/graduatestudies/thesis/default.aspx>.**

Your RTAF indicates your anticipated graduation date as May 2014. This means that if your program requires a defense, you must defend **no later than April 1, 2014** and all necessary documents are due by this date. A description of the required documents can be accessed at <http://www.iup.edu/page.aspx?id=116439>. Your dissertation must be submitted to the School of Graduate Studies & Research by April 15, 2014 if you desire to graduate by your anticipated date. You must apply for graduation by May 1, 2014. For deadlines for subsequent graduation dates, please access <http://www.iup.edu/page.aspx?id=16683>.

You are now eligible to receive a FREE copy of Adobe Professional! This software will help you to create an electronic thesis or dissertation. Attached is a copy of the Adobe Agreement form that you need to print, fill out, and sign. Once you have completed the form, you can take it to the IT Support Center in G35 Delaney Hall to obtain a copy of the software. If you are not able to come to campus, you will need to scan the completed form and send it as an attachment from your IUP e-mail account to [it-support-center@iup.edu](mailto:it-support-center@iup.edu). You can also fax the completed form to 724-357-4983. Please indicate in your email or fax that you are a graduate student requesting the Adobe Professional software and include your Banner ID and mailing address so the software can be mailed to you.

Finally, if you change your topic, the scope or methodology of your project, or your committee, a new Research Topic Approval Form must be completed.

I wish you well and hope you find this experience to be rewarding.

Sincerely,

A handwritten signature in black ink, appearing to read 'Hillary E. Creely', is written over a red wavy line.

Hillary E. Creely, J.D., Ph.D.  
Assistant Dean for Research

xc: Dr. Lara Luetkehans, Dean  
Dr. B. Gail Wilson, Graduate Coordinator  
Dr. Mark Piwinsky, Dissertation Chair  
Ms. Julie Bassaro, Secretary

HEC/bb