

**TECHNOLOGY AND INTERNET-RELATED INFORMATION BEHAVIORS OF  
PRINT JOURNALISTS IN KUWAIT**

by

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This study focused on journalists, who are constantly seeking, processing, evaluating and packaging information, in order to shed light on their information behaviors, and contribute to the development of efficient information behaviors. The examination focused on the information behaviors of journalists as they relate to the Internet and information technologies.

The population included all print journalists in Kuwait, and was examined using a self-administered questionnaire and interviews by E-mail. Information behaviors were examined from three perspectives: Access and Internet usage, evaluation and purpose, and information technology skills. Access and Internet usage was related to obstacles preventing Internet use, and usage patterns of popular Internet applications such as E-mail. Evaluation and purpose was related to information evaluation criteria, the Internet for conducting journalistic tasks, and the use of the Internet to seek specific types of information. In terms of skills, the examination focused on the skills of journalists in using 21 information technology tools and applications, and their usage patterns of information technology devices.

Results showed that print journalists in Kuwait were lacking efficient information behaviors in relations to the Internet and information technology. Their usage of the Internet was limited to the most popular applications such as E-mail, search engines, and the World Wide Web. Female journalists were found to be more skilled, and more utilizing, of the Internet than males. Data revealed a large gap in terms of information behaviors between the youngest journalists and the rest of the population. The youngest journalists were found to be more skilled in using the Internet, and relied more heavily on the medium than others. Other results showed that graduates from educational institutions in Kuwait, and Kuwaiti citizens, relied more heavily on the Internet for conducting journalistic tasks than others.

Further, results identified age, educational level, journalism experience and Internet experience as important factors that affected information behaviors. Improved behaviors for journalists in Kuwait require interventions on three fronts: education and curricula, training, and workplace practices. These interventions can pave the way for an efficient journalism industry in Kuwait which utilizes the Internet and information technology to its benefit.

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## **DEDICATION**

**To my grandmothers and grandfathers God Bless their souls...  
...I seek your understanding, forgiveness, and guidance**

**To my parents Taleb and Noria...  
...Thank you for being the best parents in the world**

**To Alia, Mansoor, Mohammed, Manaf, and Ali...  
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**To Hussain Al-Shatti and to all the ones who left before us...  
...We shall be united, with God's Will**

**To my wife Dalia Al-Shatti...  
...You are the past, the present, and the future**

**To everyone who prayed for my success...  
...Thank you and May God Bless you all**

**To Liverpool Football Club...  
...You Will Never Walk Alone**

## 1.0 INTRODUCTION

The 1990s witnessed the commercial introduction of a new communications medium in the form of the Internet. Unlike its predecessors, this medium was embraced rapidly around the globe due to its nature, availability, cost, and its potential to deliver information across boundaries and geographic locations. Since its arrival in the public domain, the Internet rapidly gained popularity and acceptance. As the Internet grew and penetrated societies around the globe, researchers were busy examining the new medium. The first phase of research tended to point to the limitless possibilities of the Internet such as communication across the globe, information at the press of a button, video and audio of events occurring a continent away, etc. Once the Internet became a well-known medium, and started pushing towards creating information societies, the first phase merged with the second where researchers started examining the effects of the Internet on humans in many different contexts. Researchers were moving from system-centered research to user-centered research.

Despite the popularity of the new medium amongst the different research fields, there remains a large area to be explored and examined systematically in terms of how humans use the Internet, purpose and efficiency of use, evaluation of online information, barriers to access, and others. These human information behaviors represent an area of great importance to Library and Information Science (LIS) professionals, who seek to provide theoretical and applied recommendations that enhance human behaviors through understanding the complex processes

and interactions with information systems and sources. The sought enhancements include areas of fulfilling information needs, seeking, and use, through systems design, educational techniques, time-efficient delivery of information, packaging of information, and an improved human information behavior overall.

One of the groups previously examined by researchers was journalists. The previous studies focused on source preferences, library use, information technologies and uses, effects of the Internet, skills, and training. The popularity of the Internet is reflected on research interests, as a review of the literature revealed a shift towards examining the Internet and information technologies. The increased adoption of the new medium by almost all professions (Gralla, 2004) facilitated the previously mentioned shift in research interests across disciplines, especially in LIS.

Journalists, important as they are as information consumers as well as producers at the same time, were not investigated in the LIS field until the mid-1980s (Herron, 1986). Since that time, a small number of studies were conducted to understand journalists' information behaviors and its various aspects. As the Internet gained increasing popularity and was being integrated into different sectors of society including business and education, it became important to gain a better understanding of the medium, its uses, its benefits, and its weaknesses.

This understanding assisted in recommending and implementing policies, best-practices, educational programs, and expanded the field of knowledge in this area. In regards to journalists and the Internet, a number of studies were conducted in Europe and the United States (e.g., Garrison, 1999; Ketterer, 2003; Lüge, 2003; Nicholas, William, Cole & Martin, 2000) to explore and understand how this professional group used the technology, and what improvements were necessary. No known studies conducted in the Middle East, and specifically Kuwait, targeted in-

depth the information behaviors of journalists in relations to the Internet and information technologies. Therefore, this study was designed as an extension of a previous one conducted in Kuwait to examine the information behaviors of print journalists (Anwar, Al-Ansari & Abdullah, 2004).

However, unlike the previous study that focused on libraries and information centers, and briefly examined the Internet, this study focused on the Internet-related information behaviors including behaviors related to information technology, skills, evaluation, and other issues. The main goal was to explore and examine the behaviors of journalists in the context of what applications, i.e. E-mail, FTP, search engines, etc., they use heavily and view as important, barriers to access, use and evaluation of online information, and skill-levels.

Also, the study compared results yielded from this examination to those of similar studies conducted in Europe and the US, with the aim of providing a better understanding of the current situation in Kuwait. This extensive and systematic study was the first of its kind in Kuwait, and would provide baseline data that could encourage further studies targeting journalists, or other professions, in the region.

## **1.1 STATEMENT OF THE PROBLEM**

Kuwait is currently undergoing massive reforms in all sectors of society, including a governmental push towards creating an information society that is capable of effectively using information technologies to its benefit (Al-Shimmari, 2005). This comes as a result of years of human development efforts. In 1975, Kuwait's Human Development Index (HDI) value was at

0.763 out of 1. Over the years, the HDI value for Kuwait had increased steadily to reach 0.777 in 1980, .780 in 1985, .813 in 1995, .837 in 2000, and .844 in 2003 (Watkins, 2005). Kuwait is ranked 44 out of 177 countries in the HDI for 2003. Along with this gradual development, technology was being widely integrated in all sectors of society, including the media. However, due to lack of guidance, media organizations in Kuwait adopted new technologies, and adjusted behaviors, through means of trial-and-error. This process can be time consuming, and a burden on resources. Many media organizations were creating their own rules and guidelines for dealing with new technologies without prior knowledge of how to do that. This resulted in a lot of lost resources in terms of manpower, capital, and time. Further, employees were changing their behaviors to accommodate new technologies, instead of making their behaviors, and work processes, more efficient. With a systematic study of journalists and the Internet-related behaviors, recommendations were made to guide, even if partially, the process of adopting and interacting with information technologies.

As processors of information, it is important to gain an understanding of journalists' behaviors to assist them in conducting their daily routines more efficiently. With the adoption of new technologies in its early stages in Kuwait, it was important to study information behaviors in relation to these new technologies. Technology can be an effective means of improving, and evolving, the journalism profession in Kuwait. Eickelman and Anderson (1999) emphasized the importance of technology as it can "create new forms of community and transform authority and social boundaries."

Therefore, this study explored Internet-related behaviors of journalists by examining Internet access, application use, use and evaluation of online information, and skills. The goal was to assist journalists in understanding their Internet-related behaviors, provide data that could

assist media librarians in their interactions with journalists, and aid reforms in Kuwait by providing a sketch of the current situation along with data that would drive recommendations for the overall benefit of print journalists.

## **1.2 STUDY FOCUS**

This study explored the Internet-related information behaviors of journalists in Kuwait in terms of application use, access, use and evaluation of online information, and skills. This provided data highlighting areas where a lack of use of certain Internet applications existed, and a need to improve awareness. Further, this examination identified the applications that were viewed by journalists as most important, which can be incorporated into future educational curricula and system design. Examining the use and evaluation of information obtained online was important for identifying areas of strength and others where improvement was needed.

The final part of the study focused on comparing results with similar studies conducted in Europe and the US. This was important in terms of identifying similarities and differences, and whether any improvements were needed.

### **1.3 IMPORTANCE AND SIGNIFICANCE**

This study has several beneficial findings and recommendations that could assist researchers, journalists, and reformers in gaining a better understanding of the information behaviors of print journalists, and as a consequence, lead to enhanced information behaviors and work practices in newspapers. Also, the study provides findings related to improving educational curricula, work-practices, training, and system design.

Further, as a future educator at Kuwait University, the researcher can use data from this study to directly recommend and influence curriculum design and education in the field of journalism, in addition to stimulating a new path of research in Kuwait. Also, the findings from this study could be used to draw comparisons of Internet-related behaviors of journalists in Kuwait and elsewhere. These comparisons can be effective in highlighting areas that need more examination. Finally, the study could be replicated over a period of time, and in different regions in the developing world, to provide an accurate and timely reflection of the situation, with the goal of improving overall human information behaviors.

In addition to the benefits mentioned, this study is important for expanding the field of knowledge regarding print journalists in general, and Kuwait specifically, by providing baseline data that can be used as building blocks for future studies, social reforms, and technology adoption initiatives in Kuwait.

## **1.4 OBJECTIVES**

The objectives of this study include analyzing the current situation in Kuwait to provide a reflection of the state of Internet-related behaviors of journalists, identifying and proposing changes to enhance the current situation, and provide recommendations that could assist the reform movement in Kuwait in the process of enhancing newspapers and the related work-processes. In addition, the study aims to provide recommendations useful for improving information behaviors of journalists, and enhance the interaction between journalists and library professionals.

Other objectives include recommending improvements to curriculum design, especially for the journalism and mass communications and library and information science departments at Kuwait University, and recommending improvements for system designers in terms of incorporating useful applications and information evaluation tools, into the development of new systems, or software, that target journalists.

## **1.5 RESEARCH QUESTIONS**

The researcher will explore answers to seven research questions using survey research methodology utilizing self-administered questionnaires and follow-up interviews by E-mail. The questions cover several areas including the nature of Internet access, applications use, use and evaluation of online information, skill-levels, information technology device usage patterns, and comparing the developing world to Europe and the United States.

1. How do print-journalists in Kuwait access the Internet and what is the nature of that access? Are there any barriers prohibiting access?

This question was designed to explore Internet access in terms of location, satisfaction, barriers preventing Internet use and barriers faced online.

2. What common Internet applications, such as E-mail, the WWW, etc., are most heavily used, by print journalists in Kuwait? What is the nature of that use?

The purpose of this question was to gain an understating of the current situation in terms of which applications are most heavily used. Disregarded, or slightly used applications, would be identified to assist in correcting the situation. Further, the question was designed to explore the usage of E-mail and the World Wide Web, the two most popular Internet applications, in terms of purpose of attractions and worries, and importance.

3. What is the importance of information evaluation criteria for print journalists in Kuwait?

The purpose of this question was to identify the amount of importance placed by journalists on each information evaluation criteria, and whether improvement is needed.

4. What level of importance do journalists place on the Internet for conducting different types of journalistic tasks?

This question was designed to identify tasks that are more dependent on the Internet for their execution than others, as perceived by journalists. This ranking of tasks could be helpful in recommending improved practices in the workplace.

5. How likely are journalists in Kuwait to use the Internet to find information useful in covering different types of news stories such as politics, sports, etc.?

This question was intended to examine the feelings of journalists towards using the Internet as a source of information. Further, the question implicitly examined the degree of adoption of the Internet by journalists, and their openness towards the medium.

6. What is the skill-level and usage pattern of print-journalists in Kuwait in relationship to information technology applications and devices?

This question was designed to examine and reflect the skill-levels of journalists in using different information technologies in order to gauge the level of expertise of journalists in general, and to identify areas that need improvement. Examining usage patterns of information technology devices was intended to gauge the degree of technology adoption by the journalists.

7. How do findings from this study in Kuwait compare to similar studies conducted in Europe and the US?

The purpose of this question was to identify similarities and differences, and whether steps can be implemented to improve the situation in Kuwait.

## **1.6 LIMITATIONS**

This study focused on daily newspapers in Kuwait. Print journalists are targeted as the population for examination since a number of previous studies focused on media employees in general and treated them as a homogenous group without distinguishing between different types of journalists, such as print, broadcast, electronic, etc. Job functions and processes differ for each type of journalist due to his/her own unique characteristics and job requirements. For example, deadlines differ between print journalists and broadcast journalists. It is important to differentiate

between the different types to gain a true reflection of information behaviors. Also, print journalists were chosen as the focus of the study due to the researcher's past experience as a print journalist allowing better access to newspapers, and the utilization of past experience in conducting research targeting print journalists in Kuwait.

Focusing on print journalists could be viewed as a limitation to the study yet it would assist in producing practical recommendations that can be used in curriculum design, training courses, reform initiatives, and improving information behaviors. The lack of a vigorous research community in Kuwait can be a limitation, since the targeted population might not be interested in participating due to a lack of awareness of the importance of research studies.

Another potential limitation was the utilization of liaisons to be able to conduct this study. Due to numerous factors affecting the environment in Kuwait, including the difficulty of accessing journalists due to busy schedules, and security measures, it was necessary to use liaisons. A liaison was identified for each newspaper, and that person was responsible for the dissemination, and collection, of questionnaires. Also, each liaison facilitated communication between the researcher and the participants. Reminder letters, questionnaires, and any other communication, were delivered to the participants through the liaisons. This made it possible to conduct this study in an efficient and timely manner. Therefore, the success, or failure, of the study depended on the success, or failure, of each liaison in executing his/her responsibilities. However, it was found that liaisons were cooperative and supportive of the processes that were part of this study.

Other limitations included the timing of conducting the study. The initial plan was to launch the study in May of 2006. However, due to the dissolution of Parliament in Kuwait during that month, and the call for new elections on the 29<sup>th</sup> of June, 2006, the study's launch was

delayed since most journalists were overloaded with work, and were less likely to participate in the study. Another time-related limitation which was unforeseen in the planning of this study was the war between Israel and Lebanon. The study was launched less than two weeks before the start of the war which could have affected the response rate, since newspapers were again overloaded with work. Further, some journalists expressed their offence at participating in the study while they were busy covering a war.

Finally, summer in Kuwait was not an efficient period for conducting a research study. During the hot summer months, most newspaper employees who are not Kuwaiti left the country to go back to their countries on vacation. Also, many Kuwaiti citizens prefer to take their vacation from work during the summer time. Potentially, this is the most important limitation that affected the total response-rate. Despite that, the population of the study included a Kuwaiti majority, a mark not achieved by previous studies targeting journalists or others in Kuwait, where expatriates formed the majority. Therefore, this limitation could be a positive one as the data is more reflective of Kuwaiti citizens, giving it more leverage in terms of findings and recommendations.

## 1.7 INFORMATION ABOUT KUWAIT

Kuwait is a small country located in the Middle East. It is bordered by Iraq to its North, Saudi Arabia to its South, and the Persian Gulf to its East. With a size of 17, 820 square kilometers, Kuwait is slightly smaller than New Jersey. It is a member of the Gulf Cooperation Council which is similar to the European Union, and includes, in addition to Kuwait, six other countries. These countries share many characteristics including language, religion, ethnicities, economic status, and heritage.

According to the census report published by Kuwait's Ministry of Planning in July, 2005, the population of Kuwait was 2.457 million people, of which 964, 000 were Kuwaiti citizens. Of the total population, 59.9 percent were males. 85 percent of the population are Muslims (70 percent Sunni, and 30 percent Shi'a), while Christians, Hindu, and others account for the remaining 15 percent. Arabic is the official language, with English being widely spoken.

Kuwait is a constitutional monarchy, governed by the Al-Sabah family. The country was a British protectorate until gaining full independence on the 19th of June, 1961. Residing over nearly 10 percent of the known world crude oil reserves, Kuwait's economy depends heavily on petroleum. First drilled in 1938, petroleum playing a great role in Kuwait's early development as it went from an arid desert to one of the highly developed countries in the Middle East. Millions of dollars were spent by the Kuwaiti government to build and develop schools, hospitals, infrastructure, and more, as its oil reserves continued to be explored and expanded (New York Times, 1952).

Oil also brought negative effects as Kuwait was intimidated by its bigger, more powerful neighbor, Iraq on more than one occasion over the past century. The Iraqi intimidation continued

over the years, resulting in blackmailing billions of dollars from Kuwait to fuel the Iraq-Iran war. This intimidation peaked in 1990, resulting in a military invasion of Kuwait by Iraqi forces. In February of 1991, Kuwait was liberated from its Iraqi invaders by a coalition headed by the United States and the United Kingdom. Since then, Kuwait engaged in a rebuilding process that is still going on today. Despite the great damage inflicted on Kuwait by Iraq, the country managed to rebuild large parts of its infrastructure. Further, Kuwait provided liberties nearly unheard of previously in the Middle East as it provided a free press, an elected parliament, and an open economy. This assisted in developing the country further, and placing it amongst the more developed countries in the region. Also, Kuwait recently granted women the right to vote in parliamentary elections, a right not yet recognized by many countries in the Middle East.

Recently, Kuwait experienced a constitutional, and democratic, change of its leadership in January, 2006, after the passing away of His Highness Sheikh Jaber Al-Sabah. His successor, ailing Crown Prince Sheikh Saad Al-Sabah, was removed from office using constitutional means. He was replaced by the current Amir, His Highness Sheikh Sabah Al-Sabah. The new government has called for massive reforms covering all aspects of the Kuwaiti society (Al-Wawan, Yousif, Al-Hajri, & Al-Omran, 2006). This reform movement includes the media, as addressed by newly appointed prime minister His Highness Sheikh Mohammed Al-Ahmad Al-Sabah in his first speech to the Kuwaiti Parliament. The prime minister said that the new government encourages creating and developing mechanisms leading to a better media that is capable of carrying out its responsibilities effectively and truthfully (Al-Wawan et al., 2006). The first step towards achieving that goal was made when the new government agreed to review the press and publications law of 1961, and made it one of its top priorities (Al-Wawan et al., 2006).

This government step materialized when a new press and publications law was passed after a unanimous vote by Parliament in March, 2006 (Jomaa & Al-Saeedi, 2006). The highlight of the new law is the government's agreement to allow the publication of new daily newspapers (Kuwait News Agency [KUNA], 2006). Further, the new changes included adding Prophet Mohammed's (Peace and Prayers Be Upon Him) daughter, cousin, and grandsons (Peace Be Upon Them), who are highly revered by the Shi'a minority, to the list of religious figures who cannot be criticized by the media (KUNA, 2006). Despite it being a symbolic addition to the law, it reflects the government's expanding acceptance of minorities, and its serious intentions of reforming the country and creating a more democratic state.

This new dedication to reforms, especially in the media sector, reflects the importance of systematic research at this critical period. Research can provide important recommendations that could guide future reforms and improve the current conditions.

## **2.0 LITERATURE REVIEW**

The literature review aims to provide a complete and accurate image of the state of research in the field of information seeking behaviors with a focus on journalists. The review will start with human information behavior, and then focus on studies that specifically targeted journalists. Also, studies from other fields are used to provide the necessary background for the study.

### **2.1 HUMAN INFORMATION BEHAVIOR**

Over the past century, human information behaviors have been examined by researchers in different fields in an attempt to gain an understanding of these behaviors, and the ramifications that come with them. Researchers in sociology, psychology, library and information science (LIS), computer science, and others, have conducted many studies to understand human information behaviors according to many different factors identified by researchers.

Over the years, LIS research reflected a shift in interest from system-centered studies, such as library usage (e.g., Broadus, 1980; Drone, 1984), information retrieval systems (e.g., Bookstein & Cooper, 1976; Cawkell, 1975), to user-centered studies, such as the roles of professionals (e.g., Leckie, Pettigrew & Sylvain, 1996), and how these affect information

behaviors. User-oriented studies did not gain popularity until the 1960s, when researchers started examining information needs and uses of scientists (Menzel, 1966). Menzel (1966) identified the year 1963 as a "take-off point" for user-oriented studies, and identified 23 studies in the three years following 1963 that dealt with human information behaviors. These studies examined scientists' preferences and evaluations of information sources and channels, information use, and information dissemination. Also, the American Psychological Association (APA) contributed in stimulating user-oriented information behavior studies in the 1960s as part of its Project on Scientific Information Exchange in Psychology (Menzel, 1966).

A few years following Menzel's (1966) initial review of the state of information behavior research, Lipetz (1970) conducted a similar review and identified 114 studies, up from 23 studies in 1966. The number of studies in both years did not reflect the total amount of studies that examined human information behavior during that period, but only the number of studies that were seen as useful by the authors.

However, the large increase in the number of human information behavior studies, from 23 in 1966 to 114 in 1970, clearly indicated an increased interest in the area.

Lipetz's (1966) review identified areas of research that included information channel preferences, information processing and dissemination, information needs and uses of users, readership and circulation studies, technology transfer, research methodology, and theory development. Clearly, the review demonstrated the increased interest in the area of human information behavior. As Lipetz (1966) stated, "as a scientific discipline, the study of information needs and uses is still in its infancy, yet it exhibits considerable vigor."

Twenty years after Lipetz's review, Dervin and Nilan (1986) conducted another review to examine the state of the research in human information behavior. Again, the latest review

demonstrated a continuous growth in the number of studies from 114 cited by Lipetz in 1970 to more than 125 in 1986. The authors indicated that 300 potentially useful citations were found for the period from 1978 to 1986 (Dervin & Nilan, 1986). In their review, Dervin and Nilan (1986) focus on the state of research in human information behavior, and the need for new approaches to research. The review included a discussion of three alternative approaches towards research-user-values approach, sense-making approach, anomalous states-of-knowledge approach (Dervin & Nilan, 1986). The different approaches were presented to guide future research in human information behavior using alternative paradigmatic assumptions. Further, the researchers stated that the three approaches examined information behaviors on a macro-level rather than the traditional micro-examination of users (Dervin & Nilan, 1986).

In 1990, Hewins conducted another review of the state of research in human information behavior. The author again noted the large amount of studies found, indicating the continued growth of research in the area of human information behavior (Hewins, 1990). However, in this review, it was noticed that cognitive studies were growing vigorously and becoming the center of attention of researchers in this area. This clearly confirmed the shift from system-oriented studies to user-oriented studies. Hewins (1990) also found that the three alternative approaches presented by Dervin and Nilan (1986) were embraced by researchers and "have come fully into the mainstream of research, as shown by the number of studies pursuing cognitive processes with respect to the user and to systems design."

Clearly, research in human information behavior shifted to the user. Researchers were attempting to understand information behaviors from the perspective of the user. This included research in information seeking and retrieving behavior (e.g., Saracevic, 1975; Schutz, 1970; Spink & Greisdorf, 2001), uncertainty (e.g., Spink, Wilson, Ford, Foster & Ellis, 2002),

searching (Kuhlthau, 1991; Spink & Saracevic, 1997), multitasking (e.g., Spink, 2004; Spink, Ozmutlu & Ozmutlu, 2002), serendipity (e.g., Foster & Ford, 2003), and human-learning (Logan, 1988).

Other cognitive processes examined by researchers included personality types (e.g. Clarke & James, 1967; Deutsch, Fleming, Brooks-Gunn, Ruble & Stangor, 1988), motivation (Bradley, 1980), memory (Case, 1991; Neill, 1984), categorization techniques (Dumais & Landauer, 1984; Iyer, 1982), and other semantic factors such as vocabulary of users and search terms (Spink, 1997; Van Pulis & Ludy, 1988).

The literature reflected a change towards examining user behaviors rather than focus on systems. This shift from a system orientation to a user orientation stimulated several attempts to model human information behavior in a step towards generating theory that would explain human information behavior in-depth and stimulate further research. However, researchers faced difficulty in modeling human information behavior due to the complex nature of behaviors, and the difficulty of generalizing a single model to encompass all human information behavior. Also, the short life of information behaviors research is a factor in the formulation of an encompassing human information behaviors model.

## 2.2 INFORMATION BEHAVIORS OF JOURNALISTS

### 2.2.1 Source Preferences

In one of the first known studies of its kind in LIS, Herron (1986) investigated, using questionnaires, the information seeking behavior of 113 print-journalists located in the Pittsburgh area. Herron was interested in examining the preferences of print-journalists towards sources of information, and the frequency of use of these sources. The study found that journalists used informal channels of information twice as often as formal ones in their daily work. Informal channels were slightly easier to use than formal channels and were more accessible. However, formal channels were perceived to be more reliable than informal ones. As for frequency of use, Herron (1986) found that personal collections and the institution's library were the most highly used formal sources. Communication with peers and non-peers were the two most frequently used types of informal sources. Overall, the study found that the most preferred form of communication amongst journalists "was the use of informal, oral channels of personal communication employing face to face contact or the use of the telephone." These findings were confirmed by other studies (e.g., Anwar, Al-Ansari & Abdullah, 2004; Campbell, 1997; Edem, 1993; Joseph, 1993; Vreekamp, 1995).

Herron's study (1986) was successful in examining the preferences of journalists towards sources and channels of communications. However, the study failed to examine, or identify, the factors that shaped the preferences of the journalists studied. Therefore, this study will benefit from previous studies by examining factors that shape journalists preferences, such as gender, age, length of experience, journalistic beat, level of education, and others.

In another study that focused on source preferences, Edem (1993) found that 65 percent of the respondents relied on informal sources whereas 35 percent depended on formal ones. Further, Edem found that 76 percent of the respondents did not utilize the library. This was attributed to the lack of financial resources, lack of modern communications equipment, and poor library and archival centers. Although Edem's study was successful in providing data that reflected the status of source preferences, it was not as successful in identifying and expanding on the reasons causing the mentioned preferences. This shortcoming was a direct result of depending solely on quantitative data, which was not a flexible method for providing in-depth examining and explaining the preferences found. Using a qualitative method to complement the one used by Edem would have produced results that could have shed more light on the preference of journalists, and the factors behind the lack of use of libraries.

In Kuwait, researchers conducted an in-depth study to examine several information behaviors of print journalists (Anwar, Al-Ansari & Abdullah, 2004). The study's goal was to examine the source preferences of journalists and the amount of satisfaction they had with these sources, how information is used, the amount of use of electronic sources of information, the information-related skills of journalists, and to identify the obstacles that journalists encountered while seeking information. The study found that journalists used information for fact-checking, background information, and to obtain angles for future articles. Writing a news item was also regarded as a major use of gathered information. As in Herron's (1986) study, the study in Kuwait found that conversations and telephone calls were very important informal sources of information (Anwar, Al-Ansari & Abdullah, 2004). As for formal sources, press releases and the library were regarded as very important. Satisfactions towards formal, and informal, sources of information were approximately the same as the degree of importance of the source (Anwar, Al-

Ansari & Abdullah, 2004). Further, the study found that the electronic library of the institution was used to gain story ideas (53.3 percent), avoid duplication (56.7 percent), and to compare current and historical coverage (56.7 percent). Using the electronic library was regarded as positive in terms of reducing the amount of time to gather information, reducing errors, and increasing the overall quality of the news item being processed (Anwar, Al-Ansari & Abdullah, 2004).

The study also examined library usage and found that 53.1 percent of respondents used the library to search an electronic database, with library staff regarded as not important in terms of finding information. Overall, it was found that searching skills were deficient, and that journalists needed professional training in order to be able to conduct their daily work in an efficient manner. The researchers also recommended curriculum-integrated instruction of information literacy at the undergraduate level as a potential solution to the deficiencies uncovered by this study. The role of the librarian, or information professional, was lacking and needed further examination (Anwar, Al-Ansari & Abdullah, 2004).

The findings of this study confirmed previous findings regarding information sources, and that journalists preferred informal sources of information over formal ones. It also provided baseline data about the information behaviors of print-journalists in Kuwait enabling future studies to further examine this area. However, the study was not successful in providing a complete reflection of the information behaviors of journalists as it did not examine, in-depth, the information behaviors related to the Internet and information technology.

Further, the study's data was quantitative in nature, and the researchers did not supplement their findings with qualitative data. Qualitative data could have been useful for expanding on findings, rather than restricting the study to validating previous findings. In this

study, the researcher aimed to avoid previous shortcomings by using both quantitative and qualitative data to gain a better understanding of the information behaviors of journalists. Further, the researcher attempted to introduce an examination that is unique for Kuwait and the region by focusing on the Internet and information technologies, with the goal of exploring and describing the current status of information behaviors.

Joseph (1993), in a study that examined library usage by Indian journalists, found that they used libraries mainly for checking background materials and for specific items of information, and that only a small proportion of them were fully satisfied with their library's collection. The researcher concluded that respondents "seem to prefer informal sources, personal document collections and consultation with journalists," (Joseph, 1993). Similar to previous studies, Joseph restricted the study to a simple questionnaire, and based her findings on the quantitative data gathered. Although the study was the first of its kind in India, it did not provide extensive data, and was restricted to validating concepts that were validated numerous times in the past. Also, the study does not provide data that explains findings, or areas that require further examination.

In another study of the information behaviors of journalists, Ibrahim and Al-Ansari (1996) found that information centers were used to find latest information (53.3 %), check accuracy of information (50.6 %), locate photographs (38.7 %), and prepare news analysis (30.7 %). Major problems faced by journalists using information centers included a scarcity of retrospective information (17.3 %), a general lack of needed information (16.0 %), and lack of current information and photographs (Ibrahim & Al-Ansari, 1996). This study also depended on a single-method of using a questionnaire to collect quantitative data. Although the data is useful in reflecting the behaviors of journalists as they relate to information centers, the researchers fail

to examine, or explain, the reasons that shape and affect these behaviors. Further, examining the use of information obtained from information centers to conduct journalistic tasks is not examined effectively by this study. This shortcoming is avoided in this study by collecting data that reflects the use of information found online to conduct journalistic tasks.

Source preferences were at the heart of research targeting journalists. Research in different areas of the world concluded that journalists preferred informal sources over formal ones. Vreekamp (1995) examined a community in Western Europe, and another in the Caribbean, and confirmed that informal sources were the main sources of free and unbiased information in both the communities. The study also found that journalists never visited an outside library.

Library usage was also examined by Campbell (1997) who reported that many of her respondents made little or no use of the library facilities. Campbell found that the information sources used included both personal contacts and electronic databases. However, these journalists placed more emphasis on human as opposed to impersonal sources of information. Despite these findings, the researcher did not attempt to explain the reasons that shaped the behaviors of journalists. A major issue that was not examined in-depth related to the favoring of human sources over other types, and whether this finding was unique to the journalists studied by Campbell, or whether it was a preference shared by journalists in general.

Clearly, research targeting source preferences of journalists confirmed that informal sources are favored, despite the perceived accuracy of formal sources of information. However, none of the studies focused on online information, and interaction with the Internet and information technology. This could be attributed to the fact that the Internet did not gain high popularity until late in the 1990s. Ward, Hansen and McLeod (1988) investigated the impact of

an electronic library on news reporting and found that “reasons for using the library and types of library materials used changed little in the period immediately following introduction of the electronic clip files.” However, it is suspect whether these findings would hold true today.

### **2.2.2 Information Needs & Uses**

Journalists need information for five extensive tasks- scrutinize facts, raise their awareness of current news, research, obtain a framework, and to stimulate their thoughts (Nicholas & Martin, 1997). The researchers agreed that information technologies were changing the information behaviors (needs and seeking) of journalists, and identified time, access, training, and information overload, as major obstacles faced by journalists when seeking information (Nicholas & Martin, 1997). These tasks and obstacles were adopted by this study and incorporated into the questionnaire to examine journalists in Kuwait, and whether these findings would be similar or not.

In another study that examined the information behaviors of journalists, Chinn (2001) found that the information needs of the journalists studied matched the information gathering behaviors observed. Further, the researcher concluded that the extent of change in information needs brought about by the emerging technologies "depends on the perception of the journalist involved and the environment in which they work," Chinn, 2001). This finding reflected two of the four elements of the unified theory of acceptance and use of technology (UTAUT)- social influence and facilitating conditions. The perceptions of journalists are affected by social influence from peers, leaders, and other individuals in society towards information technology, making the use of the technology more important. The work environment referred to by Chinn

relates to the facilitating conditions and whether the infrastructure and necessary equipment are available for the use of journalists or not. However, Chinn fails to examine the other two elements of the UTAUT- performance expectancy and effort expectancy. Incorporating all four elements into the study could have yielded more in-depth results that shed light on the information behaviors of journalists in relations to information technology.

In 1986, Harman conducted a study to obtain data related to the use of Newsbank, a database that included news items produced by Reuters. It is the first known study in LIS of journalists' information behaviors in relations to electronic environments. The results showed that 42.4 percent of respondents never used Newsbank, while 36.4 percent used in between one to five times in a week. This lack of use was attributed to the notion that journalists did not perceive searching a database as one of their job functions, and that librarians were available to conduct searches and retrieve material. Lack of training, system ambiguity, and the need for professional assistance were the main reasons cited for not using the database (Harman, 1986). Despite the successful gathering of quantitative data to examine the preferences of journalists, Harman failed in describing the study's population demographics, and whether factors such as age, experience, gender, and voluntary use, affected preferences. According to the unified theory of acceptance and use of technology (UTAUT) these factors are important in shaping the behaviors of individuals. Further, the theory of diffusion of innovations identifies the mechanics and complexities of an innovation as one of three elements that affect innovation adoption. In the previous study, Harman failed to address the complexities of Newsbank, and whether the system itself was hindering usage rather than assisting users in finding information. However, Harman's findings reflected the lack of adoption and embracing of new technologies in the workplace at the early stages of information technology spread.

However, this resistance to change and adoption of information technologies would decrease in the '90s when the Internet was commercialized and gained popularity. As the interest in information technologies and the Internet grew, so did researchers' interest in studying the effects of these technologies on different aspects of human life. One of these aspects was related to the effects of new technologies and the Internet on the information behaviors of individuals. This interest was evident in the number of studies that were interested in measuring the effects of information technologies and the Internet on journalists.

### **2.2.3 Information Technology & Internet**

Ward and Hansen (1991) looked at the impact of information technology on the roles of journalists and librarians working in 105 American daily newspapers. The researchers discovered that most of the newspapers surveyed had adopted information technologies and were using them for searching, selecting, and analyzing information. The study concluded by pointing to the benefits of information technologies, and how they allowed journalists to work in a time-efficient manner (Ward & Hansen, 1991). This could be attributed to the time-frame of the study, conducted in 1991. At that time, the Internet was still in its preliminary commercialization process, and information overload was yet to become a problem.

Further, the researchers relied on quantitative methods, and did not expand their findings using in-depth qualitative methods. At a time when the Internet was in its beginning stages, it would have been beneficial to supplement the quantitative data with qualitative data that examined information technology adoption by newspapers, obstacles faced, and how technology assisted journalists in conducting their tasks more efficiently. Also, incorporating the diffusion of

innovations theory into the study would have provided more beneficial results in terms of how information technology was being adopted, and what obstacles were presented by the complexities of the information technology studied.

In an examination of an online community of journalists, Millen and Dray (2000) found that individuals used the online community to compliment face-to-face meetings. Also, the study found that 51 percent of the postings involved answers to technical questions, while 12 percent of the posts were questions by members of the group. Another finding showed that a small number of members were responsible for most of the postings (Millen & Dray, 2000). Similar to many LIS research studies targeting information behaviors of journalists, Millen and Dray depended on quantitative data. However, the researchers examined the online postings in the form of qualitative data, to provide a more in-depth understanding of the mechanics of the online community. Despite that, the researchers did not expand on their main finding- individuals used the online community to compliment face-to-face meeting- and the reasons behind that behavior.

In one of the more in-depth studies of its kind, Nicholas, William, Cole and Martin (2000) investigated the impact of the Internet on the British media by surveying 345 journalists, media librarians, system/IT editors, and journalism students. The study found that 68 percent of the respondents used the Internet at the workplace, and that 66 percent of those users were "experienced journalists into their thirties/forties," (Nicholas et al., 2000). Researchers attributed this finding to the seniority of older employees and the job security that is afforded to them. These findings were incorporated into this study to examine their validity.

As for the World Wide Web (WWW) resources used, the study found that 53 percent of the respondents favored sites that offered "familiar, traditional and authoritative information" such as newspapers and official sites (Nicholas et al., 2000). Graphics and pictures were the least

sought after resources on the WWW (9 percent). Further, the study found that all Internet users said they used electronic mail (E-mail). The major use of E-mail was to contact individuals overseas (47 percent) while the least use was to communicate with readers (5 percent). The major factor that attracted respondents to E-mail was its ability to overcome time differences (35 percent), while E-mail's biggest problem was the lack of face-to-face interaction (16 percent). As for newsgroups, more than half of the 23 respondents who did subscribe to newsgroups did so to find human sources of information, such as experts or government officials (Nicholas et al., 2000). Findings related to E-mail and the WWW were incorporated into this study to examine the behaviors of journalists in Kuwait. Usage patterns, obstacles, and advantages and disadvantages were also incorporated into the questionnaire to examine behaviors, and provide a precise reflection of the current situation in Kuwait.

Further, the researchers examined information overload and the Internet. 30 percent of respondents considered information overload as a problem, while 26 percent did not consider overload a problem. Adoption of time-limits, using bookmarks, selectivity, and advanced search strategies were considered possible solutions to information overload on the Internet (Nicholas et al., 2000). Information overload was incorporated as an obstacle faced online in this study, to add depth to the examination of the behaviors of journalists.

In terms of the total population, Nicholas et al. (2000) estimated that "it is unlikely that more than one in five journalists used the Internet" due to "lack of access, the richness of existing information provision, suspicion of the new resource . . . , and a shortage of time." They felt that "it is very unlikely that there will be any dramatic changes, just a slow absorption of the technology." Reasons for the slow adoption of the Internet by journalists in the UK were

attributed, by the researchers, to the lack access in the workplace, preference for primary data, and the work practices in-place (Nicholas et al., 2000).

Despite the use of multiple-methods to gather data including questionnaires and interviews, researchers did not make an attempt to incorporate the theory of diffusion of innovations into the study. It could have been beneficial to incorporate the theory, as it could have led to more in-depth data reflecting factors behind the preferences found, and reasons for the slow adoption of the Internet in the UK. Further, the study combines different types of journalists, such as broadcast, print, radio, etc., and generalizes results for all journalists. This generalization could be invalidated if the factors behind the preferences found were examined, as print journalists could have behaved differently than broadcast journalists due to differing deadlines and work processes. Also, the study examines differing numbers of journalists working in daily newspapers, weekly magazines, news agencies, television, radio, and other media outlets. This combining of journalists negatively affected the results of the study, which cannot be generalized as the researchers did. In this study, the researcher identified print-journalists working at daily newspapers in Kuwait as the population of the study to provide results that accurately reflected the issues examined.

Despite the slow adoption of the Internet in the UK, the Internet's growth and adoption of information technologies by media organizations in the US was constantly on the rise. An examination of two American newspapers found that most respondents used the Internet (Poteet, 2000). Online information sources, considered important for information gathering by the majority of respondents, were mainly used for obtaining background information to supplement news stories, finding facts, keeping up-to-date with current news, and tracking down experts who can be used for preparing news stories (Poteet, 2000). Although Poteet effectively used

questionnaires to examine preferences towards the Internet and how journalists used information obtained online, the researcher did not examine what Internet applications were favored by journalists. The study was conducted in the late 1990s, when the Internet offered more tools and applications than just E-mail and the WWW. The researcher did not examine these other tools and applications preferring to focus on E-mail and the WWW. This study incorporated Poteet's findings regarding how journalists used information found online, in addition to expanding on the examination of Internet tools and applications to include search engines, newsgroups, messengers, language-tools, and others.

Another study examined daily newspapers in Michigan to evaluate the use of information technology and the Internet (Davenport, Fico & Detwiler, 2001). The study found that reporters heavily used the Internet, CD-ROMS, public records, bulletin boards, online databases, electronic archives of institution, and newspaper-related databases. Editors and librarians relied heavily on the electronic archives of the organization (Davenport, Fico & Detwiler, 2001). The results demonstrated that media personnel have adopted, and were heavily using, electronic sources of information. However, the researchers failed to examine the factors behind shaping the population's behaviors towards using each type of technology, and what the information was being used for. The main goal of the study was to examine the adoption of information technologies. Yet, the researchers failed to identify an adoption theory that could have guided the study to provide better results.

The amount of use of online information sources for newsgathering by American newspapers as reported by Garrison (1999) was 57.2 percent in 1994, 89.8 percent in 1997, and 92.0 percent in 1999. The frequency of use of online resource also recorded a similar increase from 27.4 percent for daily use in 1994, to 63.2 percent in 1999. Garrison (1999) also found that

state government and US Census sites were favored by respondents. Garrison examined preferences towards a number of site types, such as government, education, etc., which were incorporated into this study to examine the preferences of journalists in Kuwait.

Respondents to Garrison's survey (1999) judged the quality of the site based on a number of factors including authoritativeness (80.5 percent), validity and accuracy (77.8 percent), and the ability to search a website (70.3 percent). The same group of respondents identified the major problems for website use which included no verification (54.1 percent), unreliable information (44.9 percent), badly sourced information (44.3 percent), and lack of site credibility (43.8 percent).

Garrison (2002) also examined E-mail as a newsgathering tool by US daily newspapers. The results showed that 75.1 percent of respondents used E-mail to correspond with sources. Also, 61.2 percent corresponded with colleagues, and 45.3 percent corresponded with their superiors using E-mail. In contrast to the study conducted by Nicholas et al. (2000) in the UK, American journalists were found to be embracing of E-mail, and used it for communicating with many different individuals, regardless of their location.

The major issue that worried journalists in regards to E-mail was the amount of time consumed with unsolicited E-mail (Garrison, 2002). The study also found that journalists who are 34 years old or younger were most worried about spending a lot of time sorting through unsolicited E-mail (Garrison, 2002). In addition to that problem, journalists older than 34 years older expressed their worry about E-mail viruses. Again, these findings demonstrate the difference between journalists in the US and the UK. Despite the time-frame of each study (Garrison, 1999, 2002; Nicholas et al., 2000), results clearly demonstrated that US journalists were more aware of E-mail issues and problems than their counterparts in the UK. This could be

attributed to the slow adoption of new technologies in the UK. Also, Garrison (2000) found that computer use in newsgathering increased from 66.3 percent in 1994 to 89.7 percent in 1999. For that same period, the use of online resources for newsgathering also increased from 57.2 percent in 1994 to 95.1 percent in 1999.

This clearly demonstrated the constant growth and adoption of online resources by media organizations in the US during the '90s. Another interesting finding of this study demonstrated the increase in the number of journalists conducting research online (Garrison, 2000). The study found that in 1995, only 23.5 percent of journalists conducted research online, with librarians, or researchers, conducting the bulk of online research (25.3 percent). However, by 1999, 68.8 percent of journalists were conducting research online, while only 15.7 percent of librarians, or researchers, doing the same. This clearly demonstrated a trend where journalists were more open to conducting their own research online once they were knowledgeable and confident enough with the new technologies.

Despite Garrison's in-depth data, the studies did not incorporate any technology adoption theories and models to guide the research. Further, Garrison depended on quantitative data using questionnaires for all of his studies targeting journalists in the US. This dependency on one method restricted findings and did not allow for in-depth examinations of the factors that shaped the behaviors and preferences found. Therefore, this study incorporated Garrison's categories and findings related to E-mail and the WWW, in addition to incorporating factors such as age, experience, and gender, to allow for a more in-depth examination of the data.

In another Internet-related study conducted in Germany, Lüge (1999) found that the telephone was the most widely used medium on the job (90.1 percent) followed by E-mail (79.2 percent). In examining time spent online during work, the researcher found that individuals

younger than 25 years old spent the least time, while individuals between the ages of 25 and 40 spent the most time. This finding was confirmed by Nicholas et al. (2000) who found that older journalists spent more time online. Lüge's (1999) study also found that the Internet ranked third as a main source for news stories after the traditional media (radio, television, and print), and human sources of information.

In examining searching behaviors on the Internet, Lüge (1999) found that the respondents often used the WWW to access media websites. This finding was confirmed in other studies (e.g., Nicholas et al., 2000). Other uses online included finding specific information, accessing corporate information, finding experts, and searching for press releases (Lüge, 1999). Also, the study found that the speed of the Internet was the major problem faced by respondents. Other problems included erroneous hyperlinks, lack of ability to evaluate a website, and information overload. Content was regarded as most important when visiting a website. Navigation and speed of loading were also very important (Lüge, 1999).

Despite Lüge's findings, the research was not based on a specific and explicit theory related to the issues being examined. This affected the focus of the study resulting in many findings that are not examined, explained, or linked efficiently. Further, the researcher used an online questionnaire to gather data for the study without addressing the integrity of the research instrument, and whether it represented a specific kind of journalists, such as print, or journalists in general.

Overall, the major Internet-related studies (Garrison, 1999, 2000, 2002; Lüge, 1999; Nicholas et al., 2000) provided in-depth data that demonstrated that information behaviors can be affected by a number of factors including access, time, and the overall environment. From the previous studies, it is evident that journalists in the US are advanced in using IT and the Internet

in their daily work routines. In the UK, job-constraints, access, and the overall environment hindered the integration of IT and the Internet into daily work routines. As for Germany, findings demonstrated that journalists there are in the process of integrating IT and the Internet.

Despite these Internet-related studies, researchers failed to examine in-depth the factors that affected and shaped the behaviors and preferences of the populations examined. Further, most of the studies reviewed earlier depended on a single research instrument in the form of a self-administered questionnaire, without any theories to guide the research. These shortcomings were taken into account in this study, where the researcher attempted to improve the study by using quantitative and qualitative data to comprehensively examine and reflect the behaviors and preferences of print journalists in Kuwait in relations to the Internet and information technology, in addition to examining factors such as gender, age, experience, and more, and how they affected findings. The diffusion of innovations theory and the unified theory of acceptance and use of technology were identified as the theoretical framework for this research.

#### **2.2.4 Skills, Training, and Evaluation**

To provide a comprehensive reflection of the Internet-related behaviors of journalists, it is necessary to explore and examine the skills and training of journalists, as these two factors can greatly affect information behaviors positively and negatively. The average journalist's job requirements changed as the Internet and information technology spread through newsrooms across the globe. Journalists were expected to be able to use the Internet effectively to find sources and communicate with relevant individuals, search the Internet for information, exchange data, conducting research, locating stories, and other tasks. This change in job

requirements brought about a need to evaluate the skills of journalists, and implement training programs to improve those skills and provide journalists with the capabilities to use the Internet more efficiently.

In order for journalists to be able to acquire and process information in the Internet era, a new set of skills was required (Wickham, 1999). Miller's research in the area of journalist training yielded a list of basic skills that journalists need in order to be able to function effectively in the new newsroom environment (Wickham, 1999). The list contained eight major areas requiring training including computer basics, word processing, spreadsheets, databases, communications software, E-mail, the WWW, and Internet Protocols such as File Transfer Protocol. These eight areas were included in the questionnaire of this study in order to evaluate the skill-levels of print journalists in Kuwait, and highlight areas that require more attention.

Also, other researchers including Dedman, Loeb, Stith, and Wolfe (as cited in Wickham, 1999) examined the skills and training of journalists in relations to the Internet and information technology. The researchers suggested that journalists be trained in five areas that included training in acquiring basic computing knowledge and skills, programming languages, electronic information exchange, and the use of databases. This study evaluated the skills of journalists in accordance with Miller's list, and the journalists' usage patterns of information technology devices and applications. This evaluation was important for identifying areas of weakness, and recommending improvements.

Further, to effectively examine journalists' evaluation of information found online as part of their skills, it was necessary to review literature in evaluation techniques and criteria. Studies in this area (e.g. Dong, 2003; Dragulanescu 2002; Tillman, 2003; Williams & Nicholas, 1997) agree that authority and accuracy are two important criteria for evaluating online information.

Authority relates to the expertise of the author, or provider, of the information (Dong, 2003). Tate and Alexander (1996) emphasized that establishing authority of information online is difficult since it is likely that no background information retaining to the author's experience is provided.

In terms of accuracy, Dragulanescu (2002) provided guidelines to examine the information for accuracy, including whether or not sources of information are mentioned, checking these sources, whether the author's background is relevant to the information provided, and whether methodology and data collection techniques, where applicable, are mentioned by the author. Tate and Alexander (1996) stated that online information is not verified, and the ability to publish information online without verification steps is detrimental to accuracy. Therefore, it is important for journalists, who use information retrieved online for their work, to be aware of this criterion, and the effects of the lack of accuracy on the overall output.

Another important criterion for evaluating online information is coverage. This criterion is related to the depth of coverage of the site's topics, and the relevancy, comprehensiveness, and appropriateness of the information provided (Dragulanescu, 2002). Tate and Alexander (1996) noted that a source published in both print form and on the WWW could differ in content. The print version usually includes guides to the topics covered, while the WWW version might not (Tate and Alexander, 1996). It is important for journalists to be aware of this difference in publishing approaches, as it could assist them in finding useful information in an effective manner.

Objectivity is another important criterion identified by researchers. Objectivity can be problematic to assess since the publishers of online information might have differing agendas and goals than what is displayed (Tate and Alexander, 1996). Objectivity is directly linked to the

real goals of the website providing the information, any purposes held by the author, and whether a user is confident, or not, of an author's objectivity (Dragulanescu, 2002). Further, currency is another important criterion. This criterion is related to displaying copyright information, availability of resources, active links, and the date of creation and last update of the information provided (Dragulanescu, 2002; Tillman, 2003). Dong (2003) identified currency as the second most important criterion, after accuracy and authority. Tate and Alexander (1996) emphasized the importance of understanding the meaning of dates, as they could refer to the time when the information was written, or when it was published in print form, or on the website, or the date when the information was last updated.

Other evaluation criteria identified by researchers include interactivity of a website, where users can send and receive messages to an author or publisher of information, and promptness of a website, or the time needed to find a website, and for its pages to load (Dragulanescu, 2002). Further, Dong (2003) identified the cost and convenience of accessing information as important criteria for evaluating the quality of information online. Convenience was described in terms of the availability of an efficient search engine, ease of accessing the information, and its stability over time (Dong, 2003).

It is evident that research examining evaluation criteria of online information is expanding. As the information available through the Internet grows and expands, it becomes more important for individuals, especially professionals, to be aware of the criteria available to assist them in deciding which information is usable, and which is not.

Knowledge of evaluation criteria for information found online is important as it would add to the effectiveness of interacting with the Internet, and improve information behaviors. Therefore, this study examined the evaluation skills of print journalists in Kuwait according to

nine evaluation criteria identified by previous research that include authority and objectivity of publisher, accuracy and currency of information, coverage, convenience and promptness in obtaining information, the interactivity of a website, and the cost of obtaining information. These criteria were viewed as the most basic and necessary for adequate evaluation of information online. Incorporating these criteria into the study was beneficial in evaluating the evaluation skills of journalists.

## **2.3 THEORETICAL FRAMEWORK**

The researcher adopted an objectivist epistemology in approaching this study, with a view that the Internet, its applications and resources, and information technologies, exist regardless of whether an individual is aware of their existence or not. The objective meaning sought by the researcher lies in the understandings and views of the individuals being studied in relation to their interactions with the Internet and information technologies. A survey research methodology was adopted to gather data, using questionnaires and interviews by E-mail.

Basing the study on quantitative data increased the reliability and validity of the results in comparison to data derived from other methods. Further, the researcher chose to implement interviews by E-mail to supplement findings from the questionnaire. This mixed-methods approach is most efficient in answering the research questions since the researcher can expand on specific thoughts and ideas to gather insightful data (Tashakkori & Teddlie, 1998).

The diffusion of innovations theory and the unified theory of acceptance and use of technology (UTAUT) are adopted in this study to examine the interaction of journalists with the

Internet and information technology. Everett Rogers' diffusion of innovations theory is related to describing the evolution of the adoption rates of an innovation, explaining the mechanisms and complexities of the innovation, and predicting the success, or failure, of a specific innovation (Rogers, 1995). The diffusion of innovations theory states that in order for an innovation to be widely adopted, communication must occur in a social system, using certain channels over time. The theory identifies five stages that an innovation is subjected to that include knowledge, persuasion, decision, implementation, and confirmation.

The knowledge stage is related to users being exposed to the innovation, and gaining an understanding of it from that exposure. This is followed by persuasion, or the formation of an attitude towards the innovation, and the decision stage, where a user commits to the adoption of the innovation. The fourth stage is where a user puts an innovation to use, and follows it to confirm prior attitudes and beliefs about the innovation with positive outcomes. Once a user adopts an innovation, and has a positive experience using it, communication with peers assists in the diffusion of innovation. However, this process can unfold over a number of years before an innovation is well-established and adopted (Rogers, 1995).

This study aims to examine the Internet-related information behaviors of journalists in the context of the five stages identified by the innovation diffusion theory by examining the knowledge and attitudes of journalists towards the Internet and information technology, their commitment towards using the Internet and information technology to positively supplement their work, and their usage patterns. One of the overall goals of the study is to explore and describe the behaviors of journalists by examining the mechanisms and complexities presented by the Internet and information technology.

Also, the UTAUT, which consolidates eight models related to information systems usage, is integrated into the theoretical framework of this study to provide a precise reflection of the information behaviors of journalists in relations to the Internet and information technology. The UTAUT states that behaviors towards using information systems are directly affected by four elements including performance expectancy, effort expectancy, social influence, and facilitating conditions (Venkatesh, Morris, Davis, and Davis, 2003). Further, gender, age, experience, and voluntary use are defined as facilitating factors that shape an individual's behaviors.

The UTAUT theory defines performance expectancy as the gain in job performance attained by an individual due to the use of an information system (Venkatesh et al., 2003). The second element, effort expectancy, is defined as the user's perception of the amount of ease involved in using an information system. The third element, social influence, is related to the social perceptions associated with using an information system, and whether it is important to use a specific system. The final element, facilitating conditions, is defined as the perception of an individual towards the availability of the technical aspects and infrastructure that can assist in the use of an information system. Finally, gender, age, experience, and voluntary use, are factors that affect the four elements mentioned. Therefore, to better understand behaviors and interactions with a system, such as the Internet, it is important to understand the elements that affect and shape these behaviors, and incorporate them into the study.

### **3.0 METHODOLOGY**

This study adopted a self-constructed questionnaire as the primary research instrument. Also, a secondary research instrument in the form of follow-up interviews by electronic mail (E-mail) was utilized. Due to the exploratory nature of the study, this combination of research instruments was viewed as the most effective method to obtain data that would reflect the current situation. The study targeted print-journalists at the seven daily newspapers in Kuwait. Kuwait News Agency, weekly newspapers, magazines, and other media outlets, were excluded from the study due to the differing nature of their journalists' work in terms of deadlines, scope of coverage, and others.

The main purpose of the research instruments was to collect quantitative and qualitative data about the interactions of print-journalists with the Internet and information technologies to answer the research questions. Combining quantitative and qualitative methods is the most efficient, and beneficial, approach for answering research questions (Tashakkori & Teddlie, 1998). The questionnaire provided rich data about the interactions of print-journalists with the Internet and information technologies, while follow-up interviews by E-mail were most beneficial in clarifying, and adding, to the data gleaned from the questionnaire.

Further, since there is no prior data related to Kuwaiti print-journalists and the Internet, a cross-sectional survey is most useful for exploring the situation at the time of the study (Babbie, 1998). Despite the risks of non-response, slow speed of response, difficulty in interpreting omissions, a lack of spontaneous answers, and lack of control over who responds to the

questionnaires, the instrument itself can provide large amounts of valid data inexpensively, guarantee the anonymity of the respondent, and allow the use of a bigger sample due to lack of geographic restrictions (Krathwohl, 1998). Anonymity is most important as it would guarantee all print-journalists participating in the study that their opinions will not, in any way, affect their current status. Anonymity would also encourage newspapers to participate in the study, as their organization will not be singled out by name for negative criticism, if that was the case. As for the data gathered, it provided rich insights into the current situation, and provided ideas for future research. Also, the lack of geographic restrictions, and the flexibility of a questionnaire, made it possible to examine all print-journalists working at daily newspapers in Kuwait.

Finally, many research studies in Kuwait (e.g. Al-Anezi, 2000; Alkhezzi, 2002; Al-Najran, 1998; Al-Rasheed, 1998; Anwar, Al-Ansari & Abdullah, 2004; Ibrahim & Al-Ansari, 1996; Sharif, 2003) used self-administered questionnaires as their primary research instrument, creating a certain degree of comfort towards participating in one. This comfort is an advantage that will be utilized in this study by using a self-administered questionnaire.

As for follow-up interviews by E-mail, they were used in this study to complement quantitative data extracted from the questionnaire. Such qualitative data allows a researcher to further explore areas of interest, pose questions to extract further understanding, find explanations for trends, and identify areas of importance from the target population's perspective (Krathwohl, 1998). Also, interviews allow the researcher more flexibility in posing questions that could provide information useful for clarifying findings from the data gathered through a questionnaire (Yin, 2003). Despite weaknesses of "bias, poor recall, and poor or inaccurate articulation," Yin (2003) noted that "well-informed respondents can provide important insights into a situation. They also can provide shortcuts to the prior history of the situation." These

strengths were utilized by this study to gain in-depth insight to the current situation in terms of print-journalists' interaction with the Internet and information technologies. Interviewer bias was minimized since the interviews were executed by E-mail. Also, since the study was not designed to observe or interpret physical behaviors, E-mail interviews were efficient, as it was not necessary to observe the participants for further data. Following up the questionnaire with interviews strengthened and provided more meaning to the overall findings. Table 1 shows how research questions are represented in the questionnaire, and the questions that are related to answering each research question. Both the questionnaire and the interview were evaluated and approved by the Institutional Review Board at the University of Pittsburgh (see APPENDIX A).

**Table 1 Map of Research Questions in Questionnaire**

RQ	Question	Representative Question in Questionnaire
1	How do print-journalists in Kuwait access the Internet and what is the nature of that access? Are there any barriers prohibiting access?	1-8
2	What common Internet applications, such as E-mail, the WWW, etc., are most heavily used, by print journalists in Kuwait? What is the nature of that use?	9-16
3	What is the importance of information evaluation criteria for print journalists in Kuwait?	17
4	What level of importance do journalists place on the Internet for conducting different types of journalistic tasks?	18
5	How likely are journalists in Kuwait to use the Internet to find information useful in covering different types of news stories such as politics, sports, etc.?	19
6	What is the skill-level and usage pattern of print-journalists in Kuwait in relationship to information technology applications and devices?	20-21
7	General Demographics used to describe population and analyze data	22-30
8	How do findings from this study in Kuwait compare to similar studies conducted in Europe and the US?	From results

## **3.1 DESIGN OF RESEARCH INSTRUMENT**

The questionnaire was divided into five sections: access and Internet usage, evaluation and purpose, skills, demographics, and comments. These sections addressed the research questions, with a comments section reserved for the respondents' opinions regarding the study.

### **3.1.1 Access & Internet Usage**

This section was designed to address the first and second research questions, related to access to the Internet, and Internet application usage and importance. It included closed-ended questions and Likert-type scales extracted from previous studies, and created by the researcher where necessary. Internet access questions were brief, as it was only intended to gauge the extent of Internet penetration in the newspapers, and reasons that hindered access, such as lack of time, skills, confidence, equipment, etc.

Primarily, this section focused on Internet application usage and importance. The questions were extracted from previous studies (e.g. Momani, 2003; Garrison, 1999, 2002; Lüge, 1999; Nicholas, Williams, Cole & Martin, 2000). The purpose was to identify which applications, such as E-mail, World Wide Web, databases, discussion groups, etc., were most heavily used, and perceived as most important by the print-journalists targeted. This data would be important for future efforts geared towards enhancing the Internet, or Intranets, creating help guides, enhancing software to adapt to the population's preferences, and raise awareness of applications that could be neglected.

Since E-mail is the most popular, and most widely used Internet application (Thomas, 1997), a number of questions were included to examine issues related to E-mail. The study aimed to identify the leading uses of E-mail, issues related to E-mail, such as viruses, time, etc., and amount of use. Also, questions were included to examine another popular application- the WWW. These questions were intended to identify web resources used by print-journalists in terms of sites and their types, such as directories, newspapers, government sites, press releases, etc.

In terms of question design and layout, the questionnaire contained a number of questions that led to different sections for non-users of a specific application, or the Internet as a whole. The first three questions were designed to separate Internet users from non-users. The non-users were asked about the obstacles that prevented them from using the Internet, and whether they were aware of the possible benefits of using the Internet. Non-users were then asked to go to question 20 to answer the skills question, and the rest of the questions. This approach allowed the study to gain valuable information about individuals who did not use the Internet. Questions 4 to 8 in the questionnaire were designed to evaluate the place of Internet access, the availability of an Internet connection at work, years of experience in using the Internet, and obstacles faced online. The goal of these questions was to answer research question 1. Questions 9 to 16 in the questionnaire were designed to evaluate the amount of time spent using a number of applications, such as E-mail, the WWW, forums, etc., in order to observe the importance of the applications mentioned to the respondents. The researcher adopted the assumption that the amount of time spent using an application reflected the application's importance to the respondent, and that there was not a need to pose a similar question regarding the importance of each application. In addition to saving space that was used for other issues, removing the

importance of applications question avoided repetition and confusion. Questions 10 to 13 targeted E-mail, since previous studies indicated that it is one of the more popular applications on the Internet. Finally, questions 14 to 16 in the questionnaire targeted the WWW, as it was another popular Internet application according to previous studies.

### **3.1.2 Evaluation & Purpose**

This section was designed to examine the skills of print-journalists in evaluating online information. To answer the third research question, the study examined the perceptions of print-journalists towards different characteristics of websites, such as validity, accessibility, speed, authority, reputation, stability, accuracy, objectivity, currency, etc., in the form of question 17 in the questionnaire. These characteristics were extracted from previous studies (e.g., Garrison 1999; Tillman, 2003; Dong, 2003; Tate & Alexander, 1996; Dragulanescu, 2002). This examination of evaluation criteria provided important data that would guide future efforts in terms of creating help guides, enhancing electronic tools, improving teaching curricula, and raising awareness of the available tools that can assist in evaluating information found online.

Also, this section examined the uses made by print-journalists of information found online to answer the fourth research question in the form of question 18 in the questionnaire. Questions were extracted from previous studies (e.g. Anwar, Al-Ansari & Abdullah, 2004; Garrison, 1999; Ketterer, 2003; Metcalfe & Gascoigne, 2001), and were modified to suit the intended goals of this study. The intention was to examine the degree of dependency on information found online in the daily work of print-journalists. The higher the dependency on information found online, the more important it is for journalists to be aware and capable of

using evaluation criteria to evaluate information. Therefore, question 19 in the questionnaire, targeted the likeliness of turning to the Internet as a source of information for a number of coverage types, such as health, politics, etc. The question was included to answer research question 5.

### **3.1.3 Skills**

This section was intended to examine the basic information technology skills needed by journalists as developed by Miller (Wickham, 1999). The skills included using operating systems, word processing programs, spreadsheets, databases, communication software, E-mail, the WWW, and Internet protocols such as Gopher, file transfer protocol (ftp), etc. The purpose of this section was to gain an idea about the current skill-level of print-journalists in Kuwait, and areas of strength, or weakness.

Question 20 in the questionnaire was included to answer research question 6. This data can be useful for guiding training programs for journalists and improving teaching curricula. Also, question 21 in the questionnaire was included to answer research question 6. The goal was to gauge the technology sophistication of respondents through the devices they used. This question was meant to reflect the current situation, and possibly provide paths to new research for system-oriented studies.

### **3.1.4 Demographics**

This section, that included questions 22 to 30, was included to collect data describing the population in terms of gender, age, primary journalistic beat, length of experience as a journalist, citizenship, education, primary field of study (major), location of educational institution, and the number of languages known. The data assisted in describing the characteristics of the population, in addition to providing data that allowed the researcher to examine and analyze the data, or the variables related to each research question, from a number of different angles such as length of experience, gender, education, etc.

### **3.1.5 Comments**

This section was included to provide respondents the opportunity to share their opinions regarding the questionnaire design, the topics covered by the questionnaire, or any other ideas. This was important since the researcher gained more insight about certain issues, and chose to ask questions for clarification in the follow-up E-mail interviews.

### **3.2 FOLLOW-UP INTERVIEWS BY E-MAIL**

Participation in the interviews was voluntary. Willing respondents to the questionnaire were asked to provide their contact information for further participation in the study i.e. the interview. The number of journalists who provided E-mail addresses was 68 individuals. These E-mail were mostly commercial E-mails, with only one newspaper providing an E-mail server for its employees. Knowledgeable media sources indicated that journalists were used to utilizing commercial E-mail addresses for personal and business communications. Further, newspapers have adopted commercial E-mails as an acceptable business communications medium to the degree that these E-mails are published on a daily basis as part of news items to allow for feedback from readers.

Around 50 percent of the total number of E-mails provided was chosen randomly for participation. This yielded 34 E-mail addresses that were sent the follow-up interviews. Of the 34 volunteers chosen, 12 responded within the time allocated for this task, for a response rate of nearly 35 percent. The interviews were conducted in both English and Arabic, depending on the source of the E-mail. E-mail provided by journalists working in English-language newspapers were sent the English version of the interview. Once the interviews were concluded, the researcher quoted insightful responses and included them in the data analysis section to supplement the overall findings of the study. Also, attention was provided to new issues raised by respondents.

The questions that were included in the follow-up interviews were as following:

1. In your opinion, do you think that the Internet and other information technologies encourage females to pursue careers in journalism or not? Why?

2. Please describe a situation where the Internet was instrumental in the development of a news story.
3. Do you encourage enhancing the current educational curricula in Kuwait to improve Internet-related behaviors of journalists? Why? And what changes would you recommend?
4. What should training seminars and workshops focus on in order to improve Internet-related behaviors of journalists?
5. Would more “journalist friendly” systems, or software, improve Internet-related behaviors of journalists? What would these systems consist of? (For example E-mail, browsing, virus protection, etc.)

The E-mail interviews were translated, when necessary, and analyzed accordingly. The researcher attempted to identify ideas and trends that could benefit the overall findings. The findings from E-mail interviews are quoted in the discussion of the results to supplement data from questionnaires. This method of combining quantitative and qualitative data enhanced findings, and provided a better framework for understanding results. Content analysis was examined as a potential analysis tool for the follow-up interviews by E-mail. However, it was not used since translating E-mail interviews, which were mostly in Arabic, will affect context and meaning, which would affect the overall findings. Future studies could incorporate this approach when the area is explored well-enough to allow for trends to appear in the data more clearly.

### **3.2.1 Methodological Findings for Interviews by E-mail**

E-mail interviews were convenient and effective for the purposes of this study since these did not require scheduling a convenient time for both the journalist and the researcher. Further, it allowed the researcher to follow-up on the results of the questionnaire, rather than being a differing version of the questionnaire. Previous studies emphasized the loss of spontaneity in E-mail interviews. However, due to the nature of the topics covered in this study, spontaneity, body language, and direct interaction with participants were not necessary, and were viewed to be minimally beneficial to the goal of exploring opinions.

Also, using E-mail interviews allowed participants to construct their answers, since they had ample time to refer to notes, references, and other information resources. This could be a disadvantage for some studies, but in this study, this was beneficial since the aim was to explore opinion and ideas in a new area. Constructed answers were beneficial towards pointing to specific resources used in answers and the logic behind the ideas presented. Also, these added depth to answers, which could be less beneficial if spontaneity was available.

Further, another benefit of this approach was yielding a sample of technology-savvy respondents. The expectation was that the more technology-savvy respondents were more likely to volunteer for the E-mail interviews. This assumption was examined by comparing the results of E-mail participants to those of the general population, with the aim of describing the E-mail interviews sample. Results showed that respondents who provided their E-mail addresses were significantly more skilled in using the Internet than ones who did not.

The more technology-savvy respondents were more beneficial for the E-mail interviews since they assisted the exploration of the topics of the study by providing in-depth and rich

answers. Also, they assisted in pointing to areas of weaknesses related to Internet behaviors which resulted in recommendations for further research.

Further, a large number of responses to the interviews by E-mail were brief, and were not useful for the purposes of this study. However, a small number of respondents provided lengthy, insightful answers, which were beneficial for examination and inclusion in the analysis.

Overall, using this method was beneficial in terms of examining the preferences of the population towards such a method. The population was very positive and was more willing than not to participate in such an interview. However, timing could have affected the response rate, and the overall outcome. The follow-up interviews by E-mail were conducted during the holy month of Ramadan, a time when journalists worked shorter hours and had the same workload, giving them less time for participation in the interview.

Follow-up interviews by E-mail were useful and efficient as secondary research instrument. However, researchers in the developing world should be cautious in using this method as a primary research instrument, as participation and response can be problematic. More time is needed for the population in the developing world to be more aware of the different research methods made available by the advances in technology and their importance as research instruments.

### **3.3 POPULATION OF STUDY**

The population of the study included all print-journalists working at the seven daily newspapers in Kuwait. This included all employees who received a salary from a daily newspaper for journalistic work, such as writing, editing, and interviewing contacts for the purpose of developing news stories. Photographers, cartoonists, and guest columnists were excluded from the population due to the differing nature of their work. The number of journalists included in the study was determined through each daily newspaper. A letter in Arabic was sent to each editor-in-chief requesting that the number of print-journalists, as defined by the study, working at the newspaper be disclosed. The total number of journalists ranged from 100 to 140 individuals.

### **3.4 PRE-TESTING QUESTIONNAIRE**

The pre-testing of the questionnaire was concluded in April, 2006. The number of participants was 37 including 32 Kuwaiti journalism students in the US, and five personal contacts perceived as qualified to assist and benefit the progress of this study. Journalism students were targeted because they are familiar with the culture of Kuwait, and could provide valuable feedback. Journalists in Kuwait were excluded from the pre-test to avoid sensitizing the population to the topics of the questionnaire.

Ten participants received the English questionnaire, and an equal number received the Arabic one. Also, 17 individuals received both Arabic and English versions. The sample size

represented 10 percent of the expected population of the study. More than 30 percent of the participants were females, a slightly higher rate than the expected number of females in the population. Results of the pre-test indicated a high level of interest in the topics covered by the questionnaire. Using Likert-type scales and tables to gauge feelings and opinion was perceived positively. The translation from English to Arabic and vice-versa, originally done in cooperation with two bi-lingual individuals and the researcher to allow comparison and amending translations as required, was perceived as satisfactory. Minor changes were recommended in terms of word-choice, and changes were made accordingly. The Academy of the Arabic Language in Cairo, the main authority for language studies in the Arab world, was also consulted during the translation process.

The English questionnaire was translated to Arabic for dissemination to five of the seven daily newspapers in Kuwait. *Kuwait Times* and *Arab Times* will be presented with the English questionnaire since they are English-language based newspapers. Negative comments from the feedback focused on the length of the questionnaire. The average time to complete the questionnaire, after examining the times indicated by respondents to the pre-test, ranged from 12 to 30 minutes.

As a result of the pre-test, changes were implemented to modify, and enhance the questionnaire. Five questions asking yes or no questions about the desire to enhance skills in different areas were combined to produce question 27 that incorporates a Likert-type scale in table form. Question 20 was modified to give more meaning to the information evaluation criteria. This included adding one or two words to give context, and meaning. Also, the scales used were improved by adding visuals (arrows) and words to indicate what the scale stood for. This will assist respondents in quickly understanding what the question is, and what the answers

represent. Finally, style, spacing, and presentation were modified. Modifications included emphasizing questions that instructed respondents to go to other sections of the questionnaire, underlining important words in questions, moving questions to make better use of space, and removing sources of confusion, such as the "Other" option from some of the questions. These modifications were implemented in accordance with guidelines provided by methodology literature and previous studies (Al-Najran, 1998; Al-Rasheed, 1998; Babbie, 1998; Krathwohl, 1998; Tashakkori & Teddlie, 1998; Yin, 2003).

### **3.5 ADMINISTRATION OF QUESTIONNAIRE**

A letter, in either Arabic or English, detailing the study, its purposes, goals, and time requirements, was sent to each newspaper by mail, fax, and E-mail to ensure delivery. This was supplemented with telephone calls and E-mails to contacts who were useful in encouraging participation. These included personal contacts of journalists and staff working at the daily newspapers in Kuwait.

After the initial step, the researcher traveled to Kuwait where the questionnaires were personally delivered to each newspaper. Since direct access to journalists at their respective organizations was difficult due to time-constraints and security issues, a contact in each newspaper was identified by the researcher to act as a liaison between the researcher and the journalists. In most cases the contacts were either the newsroom's secretary, a prominent official in the organization, or a journalist. The liaison was responsible for disseminating the questionnaires to the journalists, and receiving completed ones in sealed envelopes.

An attempt was made to numerically code each questionnaire so that it is possible to describe the return-rate as part of the results. However, this effort was not successful due to bureaucratic processes that control the work environment. To be successful, the liaisons had to provide daily information about the number of questionnaires completed. However, due to their busy schedules, liaisons were not cooperative regarding this matter.

Once the questionnaires were delivered, the researcher tracked responses, through the liaison, every five days. After 10 days, follow-up letters were delivered to the liaisons at each newspaper for dissemination in the newsroom. These letters acted as a friendly reminder of the questionnaire, and emphasized the importance of participating. A second follow-up letter was delivered to the liaison after 20 days from the dissemination of the questionnaires. Again, the letter encouraged participation, and highlighted the importance of the study, and the deadline for responding. After 30 days, the questionnaire part of the study was concluded. However, due to bureaucracy and an environment not supportive of research, some liaisons promised more returns with time. The researcher made a decision to extend the deadline, and collect more questionnaires to support the study.

Once the study was concluded, the responses were processed for analysis. A final letter was delivered to the liaison for dissemination in the newsroom. This letter thanked the journalists for participating in this study. Also, similar letters were sent to the editor-in-chief of each newspaper.

## **3.6 CODING AND DATA ANALYSIS**

### **3.6.1 Questionnaire**

Since the data is intended to be descriptive of the entire population of journalists working in daily newspapers in Kuwait, frequencies, counts, means, and standard deviations were utilized to reflect the data. The Statistical Package for the Social Sciences (SPSS) was used to enter and analyze the data. The researcher assumed that the population was normally distributed, and therefore, parametric tests were conducted on the data. The ANOVA Test was mainly used to analyze the data in addition to the Independent-Sample T-Test. This approach was adopted since a test for normality of the population showed that the population was normally distributed.

Once the data was ready for analysis, the researcher started by describing the characteristics of the population, and detailing any significant differences where they existed. This process was repeated for the whole population to answer each research question according to nine variables- gender, age, primary journalistic beat, length of experience as a journalist, citizenship, education, primary field of study (major), location of educational institution, and the number of languages known. The analysis mentioned each instance where a significant difference was present, and presented the data accordingly.

However, before entering the data into the statistical software, the questionnaire was coded to make the process more efficient and manageable. Each questionnaire was coded for source, with each newspaper given a code-number from one to seven. Each question in the questionnaire was then coded to allow for efficient data entry, yielding a total of 177 variables for the 117 cases. Once data-entry was completed, the categories for the demographic variables

were examined and tested for balance. This step was necessary so that the categories reflected a more balanced number of cases. After the initial examination, it was decided to modify the coding for age, primary journalistic beat, citizenship, level of education, primary field of study, location of educational institution issuing latest degree, and the number of languages known. A description of the modifications made to the variables mentioned follows.

### 3.6.2 Age

The initial coding consisted of eight categories starting at 25 years or less, and increasing in five-year increments up to 60 years or more. These categories were unbalanced as show in Table 2.

**Table 2 Age Categories According to Initial Coding**

Age	Frequency	Percent
Less than 25 years	25	21.4
More than 25 but less than 30 years	26	22.2
More than 30 but less than 35	20	17.1
More than 35 but less than 40	28	23.9
More than 40 but less than 45	8	6.8
More than 45 but less than 50	5	4.3
More than 50 but less than 55	4	3.4
More than 60 years old	1	0.9

From Table 2, it was evident that the population is young in age, and 107 respondents, or nearly 92 percent, are younger than 45 years old. The first four categories included 99 respondents, while the bottom four included only 18 respondents. A clear imbalance in the categories was present. The categories were modified to yield a more balanced reflection of the population. Also, this modification assisted in improving the analysis, and making findings more meaningful.

Two approaches were tested to modify the age category. The first approach was using 10-year increments starting at 25 or less, and ending at 45 years or older for a total of 4 categories. However, the imbalance remained as the categories contained 25, 46, 36, and 10 cases respectively. The second approach was more successful in producing balanced categories. The first four categories were not modified, while the last four categories were merged together. This

approach produced five categories for age containing 25, 26, 20, 28, and 18 cases respectively. Table 3 reflects the modified categories for age. This modification was the most efficient one and was adopted for the purposes of analyzing the data. Merging the bottom four categories will not affect data analysis greatly, since 92 percent of the cases are in the first four categories.

**Table 3 Age Categories According to Modified Categories**

Age	Count	Percent
Younger than 25 years	25	21.4
25 or more but less than 30	26	22.2
30 or more but less than 35	20	17.1
35 or more but less than 40	28	23.9
40 years or older	18	15.4

### 3.6.3 Primary Journalistic Beat

To code the primary beats, a list was populated with all 113 beats provided by the population. Table 4 reflects the beats provided, and the number of cases listing each specific beat.

**Table 4 Primary Journalistic Beats**

Beat	Count
Local	36
Politics	14
Features	10
Economics	10
Arts & Literature	8
Sports	7
Education	6
Parliament	4
Science	4
Entertainment	4
Health	3
Society	3
Law & Security	2
Young Adults	1
International	1

The list yielded 15 beats, with the local beat being most frequent as 30.8 percent of the population indicated that preference. According to knowledgeable media sources, the local beat is preferred over others since it is flexible in allowing journalists to cover a diverse number of issues related to Kuwait such as politics, economics, society, etc., without being limited to a single type of news. The 15 beats did not contain a balanced number of cases and had to be categorized to allow for meaningful data analysis. Therefore, a decision was made to merge beats that are similar, and ones that are regularly found together in Kuwait’s newspapers. For example, the sports pages are usually preceded or followed by the entertainment pages. Therefore, for the purposes of data analysis, they are merged into one category. This modification produced seven categories as reflected by Table 5.

**Table 5 Modified Primary Journalistic Beats**

Beat	Count
Local	38
Politics/Economics	29
Education/Arts & Literature/Young Adults	15
Sports/Entertainment	11
Society/Health/Science	10
Features	10
Total	113

The modified categories include beats that were less popular, and were too small to be categorized or merged to other beats. Of the eight beats Parliament (4) was merged with Politics and Economics since Parliament is strongly related to Politics. Also, this category absorbed the International beat (1) that mainly deals with international politics. Law and Security (2) was merged with the Local beat since it is local coverage. Finally, the Young Adults beat was merged into Education since the beat is mainly focused on high-school and college news.

Although the top two categories (Local and Politics/Economics) account for more than 59 percent of the population, this modification produced a more balanced categorization of primary journalistic beats that is more useful for data analysis.

### 3.6.4 Citizenship

More than half of the population consisted of Kuwaiti citizens. Table 6 reflects the range of citizenships present within the population.

**Table 6 Citizenship**

Citizenship	Frequency	Percent
Kuwait	65	55.6
Egypt	18	15.4
Lebanon	13	11.1
Syria	11	9.4
Iraq	2	1.7
Palestine	2	1.7
Jordan	2	1.7
Other	4	3.4
Total	117	100.0

To produce better categories for data analysis, it was decided that the “Al-Sham” countries, an Arab grouping of Lebanon, Syria, Palestine, and Jordan, will be used. The word Al-Sham was historically used by Arabs to refer to the countries mentioned, as they shared common social beliefs and values. Iraq was merged into the “Other” category that included the USA (2), Czech Republic (1), and the Philippines (1). Table 7 reflects the changes made to the citizenship categories.

**Table 7 Modified Citizenship Categories**

Citizenship	Frequency	Percent
Kuwait	65	55.6
Lebanon/Syria/Palestine/Jordan (Al-Sham)	28	23.9
Egypt	18	15.4
Other	6	5.1
Total	117	100.0

### **3.6.5 Level of Education**

The initial coding for the level of education produced six categories as shown in table 8. However, the categories needed to be modified to make data analysis more efficient.

**Table 8 Level of Education**

Level of Education	Frequency	Percent
Some high-school	1	.9
High-school graduate	22	18.8
Diploma	18	15.4
Bachelor's degree	64	54.7
Master's degree	8	6.8
PhD	3	2.6
Total	116	100

The six categories were modified to produce four categories as reflected in table 9. This new categorization allowed the data analysis process to examine differences more efficiently, without losing possible data on differences between graduate degrees and undergraduate ones.

**Table 9 Modified Level of Education**

Level of Education	Frequency	Percent
High-school or lower	23	19.7
Diploma	18	15.4
Bachelor's degree	64	54.7
Master's degree or higher	11	9.4
Total	116	100

### 3.6.6 Primary Field of Study

Similar to primary journalistic beats, a list was populated with all the primary field of study, or majors, provided. Table 10 reflects the majors and the frequency for each one.

**Table 10 Primary Field of Study (Majors)**

Major	Frequency
Journalism & Mass Communications	24
High-School Arts	10
English Literature	9
Arabic Literature	8
Engineering	7
Political Science	7
Business Administration	6
Education	6
High-School Science	5
Sociology	4
Computer Science	3
Information Technology	3
Law	3
Accounting	2
Geography	2
Anthropology	1
Banking	1
Economics	1
Hotel Management	1
Molecular Biology	1
Philosophy	1
Psychology	1
Social Work	1
Total	104

Individually, the 23 majors listed were not efficient for data analysis. Therefore, it was decided that all majors be divided into seven categories, as reflected in table 11. The different majors were merged with the category that best represented each specific major. High-School Arts and High-School Science refer to the concentration of studies in high-school, as high-school students in Kuwait are given the choice of studying one of the two mentioned concentrations.

**Table 11 Modified Primary Field of Study**

Major	Frequency	Percent	Majors
Journalism & Mass Communications	24	22.4	Journalism
Law/Humanities/Social Sciences	21	19.6	Political Science Sociology Law Geography Anthropology Economics Philosophy Psychology Social Work
English/Arabic Literature	17	15.9	English & Arabic Literature
Business	10	9.3	Business Administration Accounting Banking Hotel Management
Arts/Education	16	15.0	High-School Arts Education
Computer Science/Information Technology	6	5.6	Computer Science Information Technology
Applied Science/Engineering	13	12.1	High-School Science Molecular Biology Engineering
Total	107	100	

### 3.6.7 Location of Educational Institution

This variable required minimal modification, as the four categories were modified to produce three. The modification was required since the third category (Europe) included only one case. Therefore, it was decided to merge this category with category four (North America) that included 10 cases. Table 12 reflects the modified categories.

**Table 12 Location of Educational Institution Issuing Degree**

Location	Frequency	Percent
Institution in Kuwait	57	48.7
Institution in Middle East	45	38.5
Institution in North America/Europe	11	9.4
Total	113	96.6

### 3.6.8 Languages Known

Again, this variable required minimal modification, as the 4-languages category contained only one case and was merged with the 3-languages category. This allowed for more efficient and meaningful data analysis that is more representative of the population. Table 13 reflects the new categories.

**Table 13 Languages Known**

Number of Languages	Frequency	Percent
1	15	12.8
2	83	70.9
3+	19	16.2
Total	117	100

The analysis examined data from a number of angles including by gender, age, main journalistic beat, length of experience as a journalist, citizenship, education level, field of study, location of educational institution, and by the number of languages spoken. Each angle was examined to identify potential behavioral differences in the population. This analysis was important in identifying ways to improve inefficient Internet-related behaviors. Again, frequency tables using means and standard deviations were used to reflect data according to each angle mentioned previously. In-depth statistical analysis, such as ANOVA and regression, was not executed as it would have added minimal benefits to the goals of the study of exploring the current situation. Such in-depth statistical analysis could be conducted in future studies in the same area, when the data is rich enough to conduct hypothesis-driven research.

### **3.7 MISSING VALUES**

The researcher adopted an approach where missing values were ignored during data analysis since the effect was minimal. Most respondents provided fully completed questionnaires. The cover-letter of the questionnaire emphasized the importance of completing the questionnaire fully. Further, the liaisons, and other personal contacts at each newspaper, cooperated in reminding the respondents of the importance of participating in the study by providing complete questionnaires. The handful of missing values that did exist in the data was attributed to human error.

### **3.8 RELIABILITY AND VALIDITY**

In terms of reliability of the questionnaire, reliability analysis was conducted using SPSS for the scales used in questions 9, 16, 17, 18, 19, and 20, to determine Cronbach's Alpha. It was found that all the scales used were highly reliable. Results are provided in the data analysis section for each question.

As for validity, face validity was inspected by the researcher in both English and Arabic, and was found to be reflective of the concepts being examined. Further, knowledgeable individuals in both fields of computer science and journalism reviewed the questions included in the research instruments, and were satisfied with face validity.

Further, evidence was gathered from the results to evaluate content validity, or measuring what the researcher intended to measure. The evidence reflected valid results. As the length of experience in using the Internet increased, so did the skill-levels in using information technology applications, which is an expected result, implying that the questionnaire data was valid in terms of measuring the underlying concepts.

### **3.9 TIMELINE**

The study's launch was delayed for more than a month due to political developments in Kuwait. In May of 2006, the original date for the launch of the study, the political situation in Kuwait became unstable resulting in the dissolution of Parliament, and a call for new elections on the 29<sup>th</sup> of June, 2006. The researcher, after conferring with knowledgeable sources, decided to delay

the launch of the study since most journalists were overloaded with work in the busy, and sudden, elections season. The study was launched on the 1st of July, 2006, when the elections were concluded, and the news cycle regained its normalcy. Table 14 reflects the development of the study from day 1 to its conclusion.

**Table 14 Timeline for conducting study**

Day	Action	Place
Before Execution of Study	Sent initial letter to newspapers in Kuwait. Also, sent E-mails and made telephone calls to supportive contacts.	US
1	Delivered questionnaires to each newspaper in Kuwait	Kuwait
5	Telephone call to each liaison to check on response-rates	Kuwait
10	Sent first reminder letter Telephone call to each liaison to check on response-rates	Kuwait
15	Telephone call to each liaison to check on response-rates	Kuwait
20	Sent second follow-up to encourage participation- letters	Kuwait
25	Telephone call to each liaison to check on response-rates	Kuwait
30	Collected completed questionnaires from each newspaper Extended deadline for collecting questionnaires	Kuwait
45	Completed questionnaire collection phase	
55	Completed entering data into software and started analysis	Kuwait
65	Commenced follow-up E-mail interviews and write-up of findings	Kuwait
68	Sent E-mail follow-up emphasizing deadline for responses	Kuwait
71	Sent E-mail follow-up emphasizing deadline for responses	Kuwait
78	Completed follow-up E-mail interviews Completed all data-gathering for study Commenced analysis of follow-up E-mail interviews	Kuwait
79+	Complete analysis, discussion, and write-up of dissertation	US
December 2006	Defend dissertation	US

## **4.0 DATA ANALYSIS AND RESULTS**

This study was designed to be exploratory in nature and aimed to reflect a clear picture of the current situation in Kuwait in terms of journalists and the Internet. The questionnaire collected information about Internet access and usage, evaluation of online information and purpose of use, information technology skill-levels, and demographics. Demographic information was collected for nine variables for in-depth analysis. Each section was analyzed for the general population, and then according to each of the nine variables mentions.

Questions included multiple-response and yes/no questions, and incremental scales in the form of tables. The purpose was to gather detailed information about each concept being examined. Data analysis involved descriptive statistics, frequencies, one-way ANOVA tests, and Independent Samples T-Tests for variables that included only two categories such as gender.

Results of the data analysis will commence with demographic information, and proceed to provide answers to each research question in the order they were listed previously. Significant results will be displayed along with tables, while insignificant ones will only be mentioned.

Further, the data was analyzed using the Statistical Package for the Social Sciences (SPSS) according to the statistical and analysis guidelines provided by Babbie (1998, 2004) and Glass and Hopkins (1995).

## 4.1 DEMOGRAPHICS

### 4.1.1 Response Rate

The population targeted by this study was journalists working at Kuwait's daily newspapers. According to estimates provided by each newspaper, the entire population at the time of the study consisted of 155 journalists. Of the total population, 117 responded to the self-administered questionnaire yielding a response rate of 75.48 percent. Table 15 reflects the number of respondents according to newspaper.

Circulation numbers for Kuwait's daily newspapers showed that the top three newspapers in Kuwait were *Al-Rai Al-Aam* (88,000), *Al-Watan* (70,000), and *Al-Qabas* (65,000) (Smalley, 2005). The bottom two newspapers by circulation are *Arab Times* (35,000) and *Kuwait Times* (32,000). Table 15 shows that *Al-Rai Al-Aam*, the newspaper with the highest circulation, also employs the biggest number of journalists in Kuwait. Also, *Kuwait Times*, the newspaper with the lowest circulation, employs the smallest number of journalists. Therefore, table 15 can be viewed as a highly valid reflection of the total population according to newspaper, with the higher-circulation newspapers employing a bigger number of journalists.

Further, Table 15 shows that the highest percentage of total respondents came from *Al-Rai Al-Aam* (33.3 percent), which is also the newspaper that employs the largest number of journalists. Journalists from *Kuwait Times*, which employs the lowest number of journalists, also accounted for the lowest percentage of total respondents to the study at 5.1 percent.

**Table 15 Response rates by newspaper**

Newspaper	Total Pop.	No. of Respondents	Response Rate	% of Total Responding Population	Circulation
Al-Rai Al-Aam	45	39	86.67	33.30	88,000
Al-Seyassah	30	23	76.67	19.70	42,000
Al-Qabas	25	17	68.00	14.50	65,000
Al-Watan	20	15	75.00	12.80	70,000
Al-Anbaa	14	11	78.57	9.40	40,000
Arab Times	11	6	54.54	5.10	35,000
Kuwait Times	10	6	60.00	5.10	32,000
<b>Total</b>	<b>155</b>	<b>117</b>	<b>75.48</b>	100	

Table 16 shows that *Al-Rai Al-Aam* was the source of the highest number of both male and female respondents at 30 and nine respectively. *Kuwait Times* provided the lowest number of male respondents with four, while *Arab Times* provided the lowest number of female respondents with one respondent.

In terms of percentages, the highest male response came from *Al-Qabas* at 88.2 percent out of its total responding population, while the highest female response came from *Al-Anbaa* at 54.5 percent. The lowest male response came from *Al-Anbaa's* total responding population, with 45.5 percent being male while the lowest female response came from *Al-Qabas*, with only 11.8 percent of its responding population being female. Table 16 provides more information.

**Table 16 Population gender according to newspaper**

Source	Female		Male	
	Count	%	Count	%
Al-Rai Al-Aam	9	23.1	30	76.9
Al-Seyassah	5	21.7	18	78.3
Al-Qabas	2	11.8	15	88.2
Al-Watan	8	53.3	7	46.7
Al-Anbaa	6	54.5	5	45.5
Kuwait Times	2	33.3	4	66.7
Arab Times	1	16.7	5	83.3
<b>Total</b>	<b>33</b>	<b>28.2</b>	<b>84</b>	<b>71.8</b>

#### **4.1.2 General Characteristics of Population**

The population was characterized by nine unique variables. The largest age category, by count, was the “more than 35 but less than 40” category and included 23.9 percent of the respondents. Of the 105 valid responses to age, data analysis showed that the minimum age was 18, and the maximum was 60, with a mean of 32.6 years, and a standard deviation of 8.63423.

As for primary journalistic beat, the local beat was the most popular and included 32.5 percent of the respondents. In terms of experience as journalists, 23.1 percent of the population chose the “more than 1 but less than 4” category. More than 74 percent of the respondents have less than 12 years of experience as journalists. Also, the minimum length of experience found was one year or less, while the maximum was 30 years, with a mean of 8.6132 years, and a standard deviation of 6.74088. This finding corresponds with the age of the population, where more than 84 percent of the population is younger than 40 years of age. Kuwaiti citizens accounted for more than 55 percent of the total population. Arab nationals accounted for the remaining population except for two Americans, one Czech, and one citizen from the Philippines, who were included in the “Other” category along with two Iraqi citizens.

As for education, more than 64 percent of the respondents were college graduates. As for the fields studied, or majors, journalism was the most popular (20.5 percent) followed by law, humanities, and the social sciences (17.9 percent combined). Further, more than 48 percent of the population graduated from an educational institution in Kuwait, while less than 10 percent graduated from institutions in North America and Europe combined.

In terms of languages known, only 12.8 percent of the population knew only one language (Arabic), while the majority (87.1 percent) knew two or more languages. The most

frequently listed languages were Arabic and English, with French, Czech, Persian, Urdu, Tagalog, German, and Spanish, also being mentioned. Also, respondents were asked to volunteer for a follow-up interview by E-mail. Of the 117 respondents, 58.1 percent provided their E-mails.

Further, respondents were asked to provide information about their experience in using the Internet. Data analysis showed that the minimum experience was one year or less, while the maximum was 13 years. The mean length of experience in using the Internet for the population was 6.1875 years, with a standard deviation of 3.01335. Table 17 provides more information about the population's characteristics.

Overall, a majority of journalists in Kuwait held Bachelor's degrees. However, less than 11 percent held Master's degrees or higher. This could be attributed to the average salaries offered in the journalism field compared to other fields (Al-Rasheed, 1998). Graduate degree holders were more likely to attain higher salaries outside of the journalism sector, a factor that could be used to partially explain the low number of journalists holding graduate degrees, and the high number of journalists that have educational backgrounds originating in other fields such as economics, political science, and literature.

**Table 17 Demographic characteristics of population**

Variable	Characteristics	Count	%
Age	Younger than 25	25	21.4
	25 or more but less than 30	26	22.2
	30 or more but less than 35	20	17.1
	<b>35 or more but less than 40</b>	<b>28</b>	<b>23.9</b>
	40 years or older	18	15.4
Primary Journalistic Beat	<b>Local</b>	<b>38</b>	<b>32.5</b>
	Politics/Economics	29	24.8
	Education/Arts & Literature	15	12.8
	Society/Health/Science	10	8.5
	Features	10	8.5
	Sports/Entertainment	11	9.4
	Missing	4	3.4
Length of Experience	Less than 1 year	15	12.8
	<b>More than 1 but less than 4</b>	<b>27</b>	<b>23.1</b>
	More than 4 but less than 8	22	18.8
	More than 8 but less than 12	23	19.7
	More than 12 but less than 16	17	14.5
	More than 16 years	12	10.3
	Missing	1	0.9
Citizenship	<b>Kuwait</b>	<b>65</b>	<b>55.6</b>
	Egypt	18	15.4
	Lebanon/Syria/Palestine/Jordan (Al-Sham)	28	23.9
	Other	6	5.1
Level of Education	High School or lower	23	19.7
	Diploma	18	15.4
	<b>Bachelor's degree</b>	<b>64</b>	<b>54.7</b>
	Master's degree of higher	11	9.4
	Missing	1	0.9
Field of Study	<b>Journalism &amp; Mass Communications</b>	<b>24</b>	<b>20.5</b>
	Law/Humanities/Social Sciences	21	17.9
	English/Arabic Literature	17	14.5
	Business	10	8.5
	Arts/Education	16	13.7
	Computer Science/Information Tech.	6	5.1
	Applied Science/Engineering	13	11.1
	Missing	10	8.5
	Location of Institution	<b>In Kuwait</b>	<b>57</b>
In Middle East		45	38.5
In North America/Europe		11	9.4
Missing		4	3.4
Number of Languages	One	15	12.8
	<b>Two</b>	<b>83</b>	<b>70.9</b>
	Three or more	19	16.2
E-mail Provided	<b>Yes</b>	<b>68</b>	<b>58.1</b>
	No	49	41.9

### **4.1.3 Characteristics of Female Population**

The demographic information of the population was analyzed by gender to provide accurate and detailed information. Table 18 reflects the demographic characteristics of the females who participated in this study. More than half (54.5 percent) of the female participants were younger than 25 years of age, and were mainly covering local news (34.4 percent). More than one third of females had less than one year of experience as a journalist, and were mostly Kuwaiti citizens (48.5 percent). The majority of females (63.7 percent) were college graduates who attended educational institutions located mostly in Kuwait and the Middle East (87.9 percent). Journalism and Mass Communications was the favored major for 30 percent of the females, who were mostly fluent in two languages (66.7 percent). Finally, 63.6 percent of the females provided their E-mails for the follow-up interviews by E-mail.

**Table 18 Demographic characteristics of females**

Variable	Characteristics	Count	%
Age	<b>Younger than 25</b>	<b>18</b>	<b>54.5</b>
	25 or more but less than 30	7	21.2
	30 or more but less than 35	1	3.0
	35 or more but less than 40	4	12.1
	40 years or older	3	9.1
Primary Journalistic Beat	<b>Local</b>	<b>11</b>	<b>34.4</b>
	Politics/Economics	6	18.8
	Education/Arts & Literature	6	18.8
	Society/Health/Science	4	12.5
	Features	4	12.5
	Sports/Entertainment	1	3.1
Length of Experience	<b>Less than 1 year</b>	12	<b>36.4</b>
	More than 1 but less than 4	6	18.2
	More than 4 but less than 8	7	21.2
	More than 8 but less than 12	4	12.1
	More than 12 but less than 16	2	6.1
	More than 16 years	2	6.1
	Citizenship	<b>Kuwait</b>	<b>16</b>
Egypt		6	18.2
Lebanon/Syria/Palestine/Jordan (Al-Sham)		8	24.2
Other		3	9.1
Level of Education		High School or lower	8
	Diploma	4	12.1
	<b>Bachelor's degree</b>	<b>16</b>	<b>48.5</b>
	Master's degree of higher	5	15.2
Field of Study	<b>Journalism &amp; Mass Communications</b>	<b>9</b>	<b>30.0</b>
	Law/Humanities/Social Sciences	6	20.0
	English/Arabic Literature	6	20.0
	Business	2	6.7
	Arts/Education	1	3.3
	Computer Science/Information Tech.	3	10.0
	Applied Science/Engineering	3	10.0
	Location of Institution	<b>In Kuwait</b>	<b>16</b>
In Middle East		13	39.4
In North America/Europe		4	12.1
Number of Languages		One	3
	<b>Two</b>	<b>22</b>	<b>66.7</b>
	Three or more	8	24.2
E-mail Provided	<b>Yes</b>	<b>21</b>	<b>63.6</b>
	No	12	36.4

#### **4.1.4 Characteristics of Male Population**

Males differed from females in age, as the “more than 35 but less than 40” category counted 24 cases and was largest (28.6 percent). For males, the local beat was the most frequently listed as the primary journalistic beat, with 33.3 percent of respondents. Nearly 28 percent of male respondents had less than four years of experience as journalists. The most frequently provided citizenship by males was also Kuwaiti (58.3 percent), with the majority of respondents being Arab citizens (96.4 percent). In terms of education, males were similar to females as more than 64 percent of them held college degrees from institutions in Kuwait (51.3 percent) or the Middle East (40 percent). Only 8.8 percent of male respondents went to educational institutions in North America or Europe. More than 58 percent of males majored in journalism and mass communications, law, humanities, social sciences, arts, and education. As for languages known, a majority of male respondents were fluent in at least two languages (85.7 percent). More than half of the male respondents (56 percent) provided their E-mails for the follow-up interviews by E-mail. Table 19 presents more information about the demographic characteristics of the male respondents.

**Table 19 Demographic characteristics of males**

Variable	Characteristics	Count	%
Age	Younger than 25	7	8.3
	25 or more but less than 30	19	22.6
	30 or more but less than 35	19	22.6
	<b>35 or more but less than 40</b>	<b>24</b>	<b>28.6</b>
	40 years or older	15	17.9
Primary Journalistic Beat	<b>Local</b>	<b>27</b>	<b>33.3</b>
	Politics/Economics	23	28.4
	Education/Arts & Literature	9	11.1
	Society/Health/Science	6	7.4
	Features	6	7.4
	Sports/Entertainment	10	12.3
Length of Experience	Less than 1 year	3	3.6
	<b>More than 1 but less than 4</b>	<b>21</b>	<b>25.3</b>
	More than 4 but less than 8	15	18.1
	More than 8 but less than 12	19	22.9
	More than 12 but less than 16	15	18.1
	More than 16 years	10	12.0
Citizenship	<b>Kuwait</b>	<b>49</b>	<b>58.3</b>
	Egypt	12	14.3
	Lebanon/Syria/Palestine/Jordan (Al-Sham)	20	23.8
	Other	3	3.6
Level of Education	High School or lower	15	18.1
	Diploma	14	16.9
	<b>Bachelor's degree</b>	<b>48</b>	<b>57.8</b>
	Master's degree of higher	6	7.2
Field of Study	<b>Journalism &amp; Mass Communications</b>	<b>15</b>	<b>19.5</b>
	<b>Law/Humanities/Social Sciences</b>	<b>15</b>	<b>19.5</b>
	English/Arabic Literature	11	14.3
	Business	8	10.4
	<b>Arts/Education</b>	<b>15</b>	<b>19.5</b>
	Computer Science/Information Tech.	3	3.9
	Applied Science/Engineering	10	13.0
Location of Institution	<b>In Kuwait</b>	<b>41</b>	<b>51.3</b>
	In Middle East	32	40.0
	In North America/Europe	7	8.8
Number of Languages	One	12	14.3
	<b>Two</b>	<b>61</b>	<b>72.6</b>
	Three or more	11	13.1
E-mail Provided	<b>Yes</b>	<b>47</b>	<b>56.0</b>
	No	37	44.0

#### 4.1.5 Significant Demographic Differences

Demographic data for the population was analyzed to identify any potential differences between males and females. An independent-samples T-test was conducted. Since Levene's Test significance for all the variables was higher than 0.05, it was assumed that data for males and females had equal variances. The data for equal variances was examined to identify any significant differences by observing the value for significance (2-tailed). Two significant differences were identified- Age and Length of Experience. The effect of gender on age and length of experience was calculated using Eta squared. This produced a value of .165 for age, and .106 for length of experience. Therefore, according to Cohen's guidelines (Cohen, 1988), the effect size is small for both variables.

Males and females differed significantly by age and length of experience. Males tended to be older and more experienced journalists than females. Table 20 provides more information.

**Table 20 Independent-Samples T-test for demographic variables according to gender**

Variable	Levene's Test for Equality of Variances		T-test for Equality of Means	
	F	Sig.	t	Sig. (2-tailed)
<b>Age</b>	<b>.0690</b>	<b>.794</b>	<b>4.762</b>	<b>.000</b>
Primary Journalistic Beat	.5860	.446	.1370	.891
<b>Experience as Journalist</b>	<b>.1060</b>	<b>.746</b>	<b>3.679</b>	<b>.000</b>
Citizenship	.4830	.489	-1.058	.292
Level of Education	2.093	.151	-.0170	.986
Primary Field of Study	.2130	.645	1.176	.242
Location of Institution	.2270	.635	-.5110	.611
Number of Languages Known	2.167	.144	-1.480	.142
E-mail Provided	2.866	.093	.7530	.453

In terms of other descriptive statistics, females were younger than males, with nearly eight years of difference in mean. Also, females were more experienced in using the Internet than males. As for length of experience as a journalist, males were nearly twice as experienced as females. Table 21 provides more information.

**Table 21 Quantitative statistics comparing males and females**

Variable	Gender	N	Mean	Std. Dev.
Age	Female	30	26.96	8.656
	Male	75	34.85	7.576
Length of experience as journalist	Female	31	5.258	6.276
	Male	75	10.00	6.468
Length of experience using Internet	Female	29	6.344	2.318
	Male	67	6.119	3.282

## 4.2 RQ1- INTERNET ACCESS, NATURE & BARRIERS

Of the 117 respondents, only 10 (8.5 percent) did not use the Internet at all. Two of the non-users were female, and eight were males. Table 22 provides more information about non-users according to their genders and ages.

**Table 22 Non-users of the Internet according to gender and age.**

Age Category	Count	
	Females	Males
Younger than 25	2	0
25 or older but less than 30	0	1
30 or older but less than 35	0	3
35 or older but less than 40	0	4
40 years or older	0	0

As for the 107 respondents who indicated that they used the Internet, 76 were males and 31 were females, indicating that 93.9 percent of responding females used the Internet, while 90.5 percent of males responding did so too. More than half of the females who used the Internet were younger than 25 years old. As for males, 26.3 percent of respondents were in the "35 or older but less than 40" category. Table 23 provides more information.

**Table 23 Internet users according to gender and age**

Age Category	Females		Males	
	Count	%	Count	%
Younger than 25	<b>16</b>	<b>51.61</b>	7	9.210
25 or older but less than 30	7	22.58	18	23.68
30 or older but less than 35	1	3.230	16	21.05
35 or older but less than 40	4	12.90	<b>20</b>	<b>26.31</b>
40 years or older	3	9.670	15	19.73
Total	31	100	76	100

Non-users of the Internet indicated that time was the major barrier preventing Internet use, followed by training and knowledge. Internet access, equipment, confidence, and confidentiality, were not viewed by the respondents as major barriers preventing Internet use. Table 24 reflects the ranking of barriers that prevented Internet use.

**Table 24 Barriers preventing Internet use**

Barrier	Count	Percent (%)
Time	8	80
Training	5	50
Knowledge	5	50
Support	4	40
Language	4	40
Nature of Job	3	30
Desire	2	20
Access	1	10
Equipment	1	10
Confidence	1	10
Other	1	10
Confidentiality	0	0

Of the nine valid responses, seven (77.78 percent) were aware of the potential benefits of the Internet, while two respondents (22.22 percent) indicated the opposite. Respondents were asked to provide data about the locations where they access the Internet, whether their organizations provided Internet access, and how satisfied they were with that access. In terms of access, 88 respondents preferred to use the Internet from their homes. This was followed by work, mobile access, and Internet cafes. Four respondents accessed the Internet from a public library and the university. Table 25 provides more information regarding the location of accessing the Internet.

**Table 25 Internet access according to location**

Location	Count
Home	88
Work	63
Mobile Access	30
Internet Café	17
Other	4

When analyzed by gender, a significant difference was found between females and males in terms of Internet access location. Of the total female population, 93.5 percent preferred accessing the Internet from their homes, while 77.6 percent of males preferred the same location.

All seven daily newspapers provided access to the Internet. The majority of respondents (80 percent) were satisfied with their institution's Internet access while the remaining 20 percent were not satisfied. The mean for satisfaction was 1.9810 with a standard deviation of 0.759 (1= Very Satisfied, 2= Generally Satisfied, 3=Somewhat Dissatisfied, 4=Very Dissatisfied). This could partially explain why journalists primarily access the Internet from home. Analysis by gender did not reveal any significant differences between the two groups. Table 26 reflects the satisfaction levels.

**Table 26 Satisfaction towards the Internet access provided by Institution**

Satisfaction Level	Count	%
Very Satisfied	27	25.70
Generally Satisfied	57	54.30
Somewhat Dissatisfied	17	16.20
Very Dissatisfied	4	3.800

Analysis by gender did not reveal any significant differences, as both genders were "Generally Satisfied" with the Internet connection provided by their institutions. However, more females were "Very Dissatisfied" than males. Table 27 provides more information.

**Table 27 Satisfaction towards the Internet access provided by Institution by gender**

Satisfaction Level	Females		Males	
	Count	%	Count	%
Very Satisfied	10	32.26	17	22.97
Generally Satisfied	<b>13</b>	<b>41.94</b>	<b>44</b>	<b>59.46</b>
Somewhat Dissatisfied	4	12.90	13	17.57
Very Dissatisfied	4	12.90	0	0

In terms of length of experience in using the Internet, analysis of the 96 valid responses showed that the mean for the population was 6.1875 years of experience, with a standard deviation of 3.01335. The most experienced respondent in using the Internet had 13 years of experience, while the least experience had one year or less of experience.

Data analysis for length of experience in using the Internet by gender showed that females were more experienced in using the Internet. Females averaged 6.3448 years of experience in using the Internet compared to the average for males which was 6.1194 years of experience. Further, the least experienced female had at least two years of experience in using the Internet, while the least experienced male had one year or less of experience. Table 28 provides more information.

**Table 28 Quantitative data for length of experience in using Internet by gender**

Gender	N	Mean	Std. Dev.	Minimum	Maximum
Female	29	6.344	2.318	2	11
Male	67	6.119	3.282	1	13

As for obstacles faced online, journalists listed time, speed of the Internet, and language as the most important obstacles. User confidentiality was the least important obstacle. Table 29 reflects the obstacles that face journalists online.

**Table 29 Obstacles faced online**

Obstacle	Count
Time	54
Speed of the Internet	48
Language	32
Censorship	20
Technical Support	20
Information Overload	19
Lack of Guidance to Sources	17
Confidentiality	9

The obstacles faced online were analyzed by gender using an Independent-Samples T-test. The results indicated three significant differences existed between males and females- Time, lack of guidance to sources, and information overload. Females placed more importance on speed, guidance and time, while males emphasized time, speed, and language. Table 30 reflects the ranking of obstacles according to gender.

**Table 30 Rank of obstacles faced online according to gender**

Male	Count	Female	Count
<b>Time</b>	44	Speed of the Internet	15
Speed of the Internet	<b>37</b>	<b>Lack of Guidance to Sources</b>	<b>10</b>
Language	<b>25</b>	<b>Time</b>	<b>10</b>
<b>Information Overload</b>	17	Censorship	8
Technical Support	14	Language	7
Censorship	12	Technical Support	6
<b>Lack of Guidance to Sources</b>	7	User Confidentiality	4
User Confidentiality	<b>5</b>	<b>Information Overload</b>	<b>2</b>

Further, obstacles faced online were analyzed according to eight variables. Analysis by age, citizenship, and the primary field of study yielded no significant differences between groups. Analysis according to the remaining five variables yielded one or two significant differences between the groups. These differences were noted, but will not be described in detail as they have a minimal effect on the overall outcome. For example, user confidentiality's count was significantly different between respondents who studied in North America and Europe, and those who studied in the Middle East and Kuwait. However, no other significant differences existed between the three groups mentioned. This could be attributed to the small number of respondents in the first group- North America and Europe.

### **4.3 RQ2- INTERNET APPLICATIONS USE AND NATURE**

Data analysis showed that the World Wide Web, Search Engines, and E-mail, were the three most popular applications used by journalists in Kuwait. Journalists spent the most time using the applications mentioned, while usage time dropped substantially for the rest of the applications starting with Directories. File Transfer Protocol, Podcasting, Open-Source Software, Telnet, Real Simple Syndication, and Wikis recorded low usage rates with means being below 1. Table 31 provides more information regarding the time spent by journalists in using the applications listed. The average mean for using all of the application by the population was 1.6478, closer to less time spent using than average.

The reliability of the results was examined by calculating Cronbach's Alpha. It was found to be .917, indicating that the scale was highly reliable.

**Table 31 Time spent using Internet applications**

Rank	Application	Mean	Std. Deviation
1	World Wide Web	3.486	1.376
2	Search Engines	3.457	1.506
3	E-mail	3.252	1.631
4	Directories	2.457	1.543
5	Newsgroups	2.233	1.830
6	Messengers	2.130	1.737
7	Forums	1.729	1.483
8	Alerts Software	1.616	1.697
9	Language Tools	1.373	1.657
10	Listservs	1.196	1.475
11	Relay Chat	1.177	1.565
12	Databases	1.168	1.569
13	Blogs	1.158	1.480
14	FTP	.9533	1.334
15	Podcasting	.8785	1.357
16	Open-Source Software	.8505	1.323
17	Telnet	.7477	1.274
18	RSS Feeds	.7383	1.238
19	Wikis	.7009	1.319
Average mean		1.647	
Note: The incremental scale used to measure the amount of time spent using each application ranged from 0 to 5 with 0 being no use at all, 1 for less time, 3 for average, and 5 for more time.			

### **4.3.1 By Gender**

Independent Samples T-Test was conducted to analyze the applications most used by journalists according to gender. Results showed that there are significant differences between males and females in using E-mail and the World Wide Web. Females spent more time using the WWW (mean=3.9677) and E-mail (3.7419) compared to males (3.2895 for the WWW and 3.0526 for E-mail). All other applications did not reflect any significant differences. Further, females spent more time than males in using each of the applications listed except newsgroups.

Table 32 provides more detailed information about the amount of time spent using each application by gender, with application recording significant differences in means in bold. The data shows that females spent more time than males in using 17 out of the 19 applications listed, with the WWW being the most used application by both genders. By average mean for all the applications, females (avg. mean=1.8879) spent more time than males (avg. mean=1.5499) in using all of the 19 applications listed. However, the mean for both males and females were low, indicating a need for improvement.

**Table 32 Time spent using applications by males and females**

	Gender	N	Mean	Std. Deviation
<b>E-mail</b>	Male	76	3.052	1.640
	Female	31	<b>3.741</b>	1.526
<b>World Wide Web</b>	Male	76	3.289	1.344
	Female	31	<b>3.967</b>	1.353
Search Engines	Male	76	3.289	1.503
	Female	31	<b>3.871</b>	1.454
Directories	Male	76	2.434	1.560
	Female	31	<b>2.516</b>	1.524
Forums	Male	76	1.631	1.440
	Female	31	<b>1.967</b>	1.580
Messengers	Male	76	1.934	1.660
	Female	31	<b>2.612</b>	1.856
Relay Chat	Male	76	1.144	1.511
	Female	31	<b>1.258</b>	1.712
Newsgroups	Male	76	<b>2.276</b>	1.815
	Female	31	2.129	1.892
Listservs	Male	76	1.065	1.349
	Female	31	<b>1.516</b>	1.729
File Transfer Protocol	Male	76	.8289	1.170
	Female	31	<b>1.258</b>	1.652
Telnet	Male	76	.6711	1.181
	Female	31	<b>.9355</b>	1.481
Blogs	Male	76	1.039	1.399
	Female	31	<b>1.451</b>	1.650
Real Simple Syndication	Male	76	.7105	1.175
	Female	31	<b>.8065</b>	1.400
Wikis	Male	76	.6579	1.249
	Female	31	<b>.8065</b>	1.492
Podcasting	Male	76	.8026	1.243
	Female	31	<b>1.064</b>	1.611
Language Tools	Male	76	1.250	1.524
	Female	31	<b>1.677</b>	1.938
Alerts Software	Male	76	1.434	1.534
	Female	31	<b>2.064</b>	1.998
Databases	Male	76	1.078	1.421
	Female	31	<b>1.387</b>	1.891
Open-Source Software	Male	76	<b>.8553</b>	1.272
	Female	31	.8387	1.462
Average Mean	Male		1.549	
	Female		<b>1.887</b>	
Note: The incremental scale used to measure the amount of time spent using each application ranged from 0 to 5 with 0 being no use at all, 1 for less time, 3 for average, and 5 for more time.				

### 4.3.2 By Age

Analysis by age revealed four significant differences at the 0.05 significance level in the amount of time spent using E-mail, the WWW, Search Engines, and Messengers. A Tukey post-hoc test revealed that in all four instances of significant differences, the difference was between the youngest age group, younger than 25, and the oldest, 40 years or older. Table 33 sheds more light on the significant differences between the youngest and oldest respondents. From table 33, it is evident that younger journalists spent more time using E-mail, the WWW, Search Engines, and Messengers, than their older counterparts. However, the data shows that the group that journalist who were 35 or older but younger than 40 were the ones who spent most time using 12 out of the 19 applications listed. The youngest journalists, younger than 25 years, were the ones who spent most time using six out of the 19 applications. Journalists who were 40 years or older did not spend the most time using any of the applications in comparison to the other age groups.

Examining the average mean for all 19 applications showed that journalists who were 30 or older but younger than 35, spent the most time using applications. The oldest journalists, 40 years or older, spent the least time on average in using the applications listed.

**Table 33 Time spent using applications according to age group**

Application	Time spent using (mean) by age group				
	<25	25>30	30>35	35>40	40+
<b>E-mail</b>	<b>3.956</b>	3.400	3.058	3.208	2.388
<b>WWW</b>	<b>4.130</b>	3.160	3.411	3.750	2.833
<b>Search Engines</b>	<b>4.217</b>	3.360	3.294	3.750	2.388
Directories	2.434	2.400	2.352	<b>3.041</b>	1.888
Forums	<b>2.304</b>	1.440	1.647	1.708	1.500
<b>Messengers</b>	<b>2.826</b>	1.840	2.705	2.041	1.222
Relay Chat	.5652	1.280	<b>1.823</b>	1.583	.6667
Newsgroups	2.087	2.560	<b>2.823</b>	2.166	1.500
Listservs	<b>1.173</b>	1.400	1.529	1.291	.5000
File Transfer Protocol	.7391	.9600	<b>1.470</b>	1.083	.5556
Telnet	.4783	.8400	<b>1.117</b>	.8750	.4444
Blogs	.7391	1.360	<b>1.647</b>	1.333	.7222
Real Simple Syndication	.2609	.7600	<b>1.235</b>	1.000	.5000
Wikis	.2609	.6000	<b>1.235</b>	.9583	.5556
Podcasting	.6087	.7200	<b>1.235</b>	1.083	.8333
Language Tools	1.391	1.400	<b>1.764</b>	1.500	.7778
Alerts Software	1.869	1.240	<b>2.294</b>	1.833	.8889
Databases	1.304	.8400	<b>1.529</b>	1.416	.7778
Open-Source Software	.3913	.8000	<b>1.411</b>	1.208	.5000
Average mean	1.670	1.597	<b>1.978</b>	1.833	1.128
Note: The incremental scale used to measure the amount of time spent using each application ranged from 0 to 5 with 0 being no use at all, 1 for less time, 3 for average, and 5 for more time.					
Key: <25=Younger than 25 years old, 25>30=25 or older but younger than 30, 30>35=30 or older but younger than 35, 35>40=35 or older but younger than 40, 40+=40 years or older					

### 4.3.3 By Journalistic Beat

Analysis according to Primary Journalistic Beat revealed eight significant differences in using Telnet, Real Simple Syndication Feeds, Wikis, Podcasting, Language Tools, Alerts Software, Databases, and Open-Source Software. The significant difference mainly involved respondents who covered Society/Health/Science, and others. Table 34 displays the mean values for each application according to primary journalistic beat. For Telnet, Society/Health/Science beats spent significantly more time than Local and Politics/Economics beats. Despite that significant difference, Society/Health/Science beats did not spend large amounts of time using Telnet. In the case of RSS feeds, in addition to a difference between the Society/Health/Science beats and the Local and Politics/Economics beats, there was a significant difference between Sports/Entertainment and Politics/Economics.

For the rest of the applications, the significant differences occurred between Society/Health/Science and the other beats (Table 34- significant differences in bold). Despite these significant differences by primary journalistic beat, the findings could be a result of a low number of cases for the Society/Health/Science beats (10 cases) in comparison to Local (38), and Politics/Economics (29). Table 34 provides more information on the applications that recorded significant differences in means between the groups.

**Table 34 Time spent using applications according to primary journalistic beat**

Application	Time spent using (mean) by journalistic beat					
	SHS	L	PE	SE	F	EAL
Telnet	<b>1.900</b>	<b>0.454</b>	<b>0.384</b>	1.454	1.200	0.571
RSS Feeds	<b>1.900</b>	<b>0.545</b>	<b>0.307</b>	1.545	1.000	0.500
Wikis	<b>1.900</b>	<b>0.515</b>	<b>0.230</b>	1.272	1.000	0.642
Podcasting	<b>2.100</b>	0.757	<b>0.576</b>	1.454	0.400	0.928
Databases	<b>2.800</b>	<b>0.878</b>	<b>0.730</b>	1.727	<b>0.700</b>	1.285
Open-Source Software	<b>2.000</b>	0.727	<b>0.423</b>	1.727	0.900	0.571
Language Tools	<b>3.100</b>	<b>1.181</b>	<b>1.153</b>	1.727	<b>0.700</b>	1.428
Alerts Software	<b>2.800</b>	<b>1.060</b>	1.346	2.090	2.400	1.428
Note: The incremental scale used to measure the amount of time spent using each application ranged from 0 to 5 with 0 being no use at all, 1 for less time, 3 for average, and 5 for more time.						
Key: SHS=Society/Health/Science, L=Local, PE=Politics/Economics, SE=Sports/Entertainment, F=Features, EAL=Education/Arts & Literature						

#### 4.3.4 By Length of Internet Experience

Data analysis according to Internet experience showed that the average time spent using Internet applications increased with Internet experience, with journalists having the highest experience in using the Internet spending the most time in using 18 out of the 19 applications listed. Further, journalists who were less experienced in using the Internet spent less time using the applications. Data from Table 35 shows that as the length of Internet experience increased, so did the amount of time spent using each application.

**Table 35 Time spent using applications according to Internet experience**

Application	Time spent using (mean) by Internet experience				
	>3	3>6	6>9	9>12	12+
E-mail	1.952	3.233	<b>3.875</b>	3.444	3.800
WWW	2.190	3.566	3.875	3.777	<b>4.800</b>
Search Engines	2.428	3.566	3.968	3.277	<b>4.400</b>
Directories	2.095	2.566	2.312	2.666	<b>4.000</b>
Forums	1.523	1.566	2.031	1.555	<b>2.600</b>
Messengers	1.238	1.966	2.750	1.944	<b>4.000</b>
Relay Chat	1.285	1.166	1.093	0.777	<b>3.000</b>
Newsgroups	1.714	2.400	2.156	2.277	<b>3.600</b>
Listservs	0.857	1.100	1.343	1.055	<b>2.600</b>
File Transfer Protocol	0.476	0.733	1.000	1.333	<b>2.600</b>
Telnet	0.523	0.566	0.781	0.888	<b>2.000</b>
Blogs	0.666	1.133	0.968	1.722	<b>2.600</b>
Real Simple Syndication	0.476	0.633	0.656	1.055	<b>2.000</b>
Wikis	0.333	0.733	0.718	0.722	<b>2.000</b>
Podcasting	0.619	0.833	0.906	0.777	<b>2.400</b>
Language Tools	0.809	1.133	1.968	1.166	<b>2.200</b>
Alerts Software	0.666	1.100	1.968	2.333	<b>4.000</b>
Databases	0.619	0.766	1.562	1.000	<b>4.200</b>
Open-Source Software	0.571	0.466	1.000	1.111	<b>2.600</b>
Average Mean	1.107	1.538	1.838	1.731	<b>3.126</b>
Note: The incremental scale used to measure the amount of time spent using each application ranged from 0 to 5 with 0 being no use at all, 1 for less time, 3 for average, and 5 for more time.					
Key: >3= Less than 3 years, 3>6= 3 or more but less than 6, 6>9= 6 or more but less than 9, 9>12= 9 or more but less than 12, 12+= 12 years or more					

#### **4.3.5 By Level of Education**

Level of Education revealed two significant differences in the time spent using Search Engines, and FTP. Table 36 provides more information. For Search Engines, the significant difference was between bachelor-degree holders, and diploma holders. For FTP, the significant difference was between Master-degree or higher holders, and high-school or lower graduates. Further, journalists who held Master's degrees or higher spent more time using all of the applications listed when compared to other groups. High-school graduates or lower spent the least time on average in using the same applications.

**Table 36 Time spent using applications according to level of education**

Application	Time spent using (mean) by educational level			
	High School or lower	Diploma	Bachelor's	Master's or higher
E-mail	3.300	4.000	2.864	<b>4.090</b>
WWW	3.500	<b>3.937</b>	3.305	3.727
Search Engines	3.550	<b>4.312</b>	3.152	3.636
Directories	2.400	2.125	2.406	<b>3.181</b>
Forums	1.650	2.000	1.576	<b>2.090</b>
Messengers	2.200	3.000	1.813	<b>2.272</b>
Relay Chat	1.000	1.375	1.067	<b>1.545</b>
Newsgroups	2.250	<b>2.437</b>	2.118	2.363
Listservs	1.050	.8750	1.169	<b>1.818</b>
File Transfer Protocol	.4500	1.187	.8305	<b>1.909</b>
Telnet	.2000	.5625	.7966	<b>1.454</b>
Blogs	.7000	1.312	1.101	<b>1.818</b>
Real Simple Syndication	.2500	.6875	.7288	<b>1.454</b>
Wikis	.2500	.6250	.6949	<b>1.363</b>
Podcasting	.7000	.9375	.7458	<b>1.545</b>
Language Tools	1.350	1.625	1.135	<b>2.090</b>
Alerts Software	1.450	1.625	1.474	<b>2.454</b>
Databases	.7500	.9375	1.135	<b>2.181</b>
Open-Source Software	.5500	.9375	.7288	<b>1.636</b>
Average mean	1.450	1.815	1.518	<b>2.244</b>
Note: The incremental scale used to measure the amount of time spent using each application ranged from 0 to 5 with 0 being no use at all, 1 for less time, 3 for average, and 5 for more time.				

#### **4.3.6 By Primary Field of Study**

Analysis according to primary field of study, or major, revealed three significant differences in terms of amount of time spent using Messengers, FTP, and Language Tools. The main difference for all three applications was between Computer Science/Information Technology majors, and others. This could be regarded as an expected finding since Computer Science majors are expected to be more skilled in using applications, and therefore, spend more time using them. Table 37 provides more information about these significant differences. A Tukey post-hoc test showed that the difference in time spent using Messengers was between Computer Science/Information Technology on one hand, and Journalism and Mass Communications, Law/Humanities/Social Sciences, and Arts/Education, on the other.

The same applied to FTP, where Computer Science/Information Technology majors spent more time using applications than others. As for language tools, the significant difference was between two groups- Computer Science/Information Technology and Journalism and Mass Communications. Further, table 37 shows that on average, computer science/information technology majors spent more time using all of the applications in comparison to other majors. Law/humanities/social sciences majors spent the least time on average in using all of the applications.

**Table 37 Time spent using applications according to primary field of study**

Application	Time spent using (mean)						
	JMC	LHSS	EAL	BUS	AE	CSIT	ASE
E-mail	2.954	3.000	3.294	3.666	2.923	<b>4.000</b>	3.750
WWW	3.545	3.333	3.647	4.166	2.615	<b>4.000</b>	3.666
Search Engines	3.272	3.190	3.294	4.833	3.000	<b>4.166</b>	3.833
Directories	1.909	2.333	2.823	2.333	2.615	2.166	<b>2.833</b>
Forums	1.500	1.238	1.823	1.166	<b>2.076</b>	1.333	1.666
<b>Messengers</b>	1.590	1.666	2.294	2.000	1.384	<b>4.000</b>	2.583
Relay Chat	.7273	1.047	1.117	<b>1.333</b>	1.076	1.000	1.000
Newsgroups	1.818	1.333	2.411	<b>3.333</b>	2.000	2.833	2.666
Listservs	.7273	.9048	.8824	1.500	1.230	<b>2.333</b>	1.000
<b>File Transfer Protocol</b>	.7273	.4762	.8824	.6667	.6154	<b>2.333</b>	.9167
Telnet	.5000	.2857	.8235	.5000	.5385	<b>1.333</b>	.5833
Blogs	.9091	.6667	1.117	2.166	.8462	<b>1.166</b>	1.000
Real Simple Syndication	.4091	.3333	.5882	1.000	.3846	<b>1.000</b>	1.000
Wikis	.3636	.2857	.8235	.8333	.3077	<b>1.666</b>	.3333
Podcasting	.8182	.3333	.6471	.0000	1.000	<b>1.500</b>	.5833
<b>Language Tools</b>	.7273	.7619	1.588	1.666	1.076	<b>2.833</b>	1.916
Alerts Software	1.000	1.285	1.705	2.166	1.076	<b>3.000</b>	1.666
Databases	.6818	.6667	1.294	1.333	.6154	<b>2.166</b>	1.333
Open-Source Software	.5455	.2857	.6471	.3333	.6154	<b>1.500</b>	1.333
Average mean	1.301	1.233	1.668	1.842	1.368	<b>2.333</b>	1.771
<p>Note: The incremental scale used to measure the amount of time spent using each application ranged from 0 to 5 with 0 being no use at all, 1 for less time, 3 for average, and 5 for more time.</p>							
<p>Key: JMC= Journalism &amp; Mass Communications, LHSS=Law/Humanities/Social Sciences, EAL=English/Arabic Literature, BUS=Business, AE=Arts/Education, CSIT=Computer Science/Information Technology, ASE=Applied Science/Engineering</p>							

### 4.3.7 By Location of Educational Institution

The data for time spent using Internet applications was analyzed by the location of the last educational institution that the respondent graduated from. The results of a one-way ANOVA test revealed significant differences in the time spent using 11 applications- E-mail, Forums, Listservs, FTP, Telnet, RSS, Wikis, Podcasting, Language Tools, Databases, and Open-Source Software. Table 38 provides information regarding the results of the one-way ANOVA test.

**Table 38 ANOVA results for time using applications by location of edu. institution**

Application	Sum of Squares	df	Mean Square	F	Sig.
<b>E-mail</b>	31.52	2	15.76	6.565	<b>.002</b>
WWW	2.834	2	1.417	.726	.486
Search Engines	5.023	2	2.512	1.091	.340
Directories	8.614	2	4.307	1.881	.158
<b>Forums</b>	18.26	2	9.132	4.388	<b>.015</b>
Messengers	6.188	2	3.094	1.007	.369
Relay Chat	8.310	2	4.155	1.699	.188
Newsgroups	7.240	2	3.620	1.087	.341
<b>Listservs</b>	26.72	2	13.36	6.756	<b>.002</b>
<b>FTP</b>	26.91	2	13.46	8.548	<b>.000</b>
<b>Telnet</b>	28.35	2	14.17	10.07	<b>.000</b>
Blogs	10.94	2	5.475	2.553	.083
<b>RSS Feeds</b>	28.20	2	14.10	10.72	<b>.000</b>
<b>Wikis</b>	23.45	2	11.72	7.429	<b>.001</b>
<b>Podcasting</b>	25.90	2	12.95	8.031	<b>.001</b>
<b>Language Tools</b>	25.20	2	12.60	4.895	<b>.009</b>
Alerts Software	14.72	2	7.362	2.636	.077
<b>Databases</b>	35.55	2	17.77	8.162	<b>.001</b>
<b>Open-Source Software</b>	25.23	2	12.61	8.257	<b>.000</b>

To identify where these differences occurred between the groups, a Tukey post-hoc test was conducted. Table 39 provides information for all the applications, with the 11 applications recording a significant difference being in bold. From the data, it was evident that graduates from North America/Europe spent more time in using all 19 applications, with an average mean for all applications of 2.736.

**Table 39 Time spent using applications by location of last educational institution**

Application	Time spent using (mean)		
	KUW	ME	NAE
<b>E-mail</b>	3.520	2.674	<b>4.363</b>
WWW	3.520	3.348	<b>3.909</b>
Search Engines	3.520	3.209	<b>3.909</b>
Directories	2.520	2.209	<b>3.181</b>
<b>Forums</b>	1.940	1.279	<b>2.545</b>
Messengers	2.000	2.069	<b>2.818</b>
Relay Chat	1.040	1.209	<b>2.000</b>
Newsgroups	2.180	2.000	<b>2.909</b>
<b>Listservs</b>	1.300	.8140	<b>2.545</b>
<b>File Transfer Protocol</b>	.6400	1.023	<b>2.363</b>
<b>Telnet</b>	.5200	.6744	<b>2.272</b>
Blogs	1.080	1.000	<b>2.090</b>
<b>Real Simple Syndication</b>	.6000	.5581	<b>2.272</b>
<b>Wikis</b>	.5000	.6279	<b>2.090</b>
<b>Podcasting</b>	.5000	.9302	<b>2.181</b>
<b>Language Tools</b>	1.340	1.139	<b>2.818</b>
Alerts Software	1.360	1.627	<b>2.636</b>
<b>Databases</b>	.8400	1.093	<b>2.818</b>
<b>Open-Source Software</b>	.7200	.6279	<b>2.272</b>
Average mean	1.560	1.479	<b>2.736</b>
Note: The incremental scale used to measure the amount of time spent using each application ranged from 0 to 5 with 0 being no use at all, 1 for less time, 3 for average, and 5 for more time.			
Key: KUW=Kuwait, ME=Middle East, NAE=North America/Europe			

#### **4.3.8 By Languages Known**

The number of languages known did not affect time spent using Internet applications except for the use of E-mail and the WWW. For E-mail, a significant difference existed between respondents who knew only one language (mean=2.000) on one hand, and respondents who knew two (mean=3.359) and three languages or more (mean=3.555) on the other. The same significant difference existed for time spent using the WWW. Respondents who knew one language had a mean of 2.272 compared to 3.525 for two languages, and 4.055 for three languages or more. As the number of languages known increases, so does the amount of time spent using E-mail and the WWW.

#### **4.3.9 By-Email provided**

Four significant differences existed when the data for amount of time spent using Internet applications was analyzed by whether or not a respondent provided an E-mail address as part of the study. These significant differences existed for E-mail, the WWW, Search Engines, and RSS Feeds. Table 40 displays the means for respondents who provided their E-mail (67 cases), and those who did not (40 cases). E-mail providers spent more time using E-mail, the WWW, and Search Engines in comparison to their counterparts who did not. However, respondents who did not provide their E-mail spent more time utilizing RSS feeds than ones who did.

From table 40, it is evident that journalists who did not provide their E-mails spent more time using some of the applications listed. However, in terms of average mean for time spent using all applications, journalists who did provide their E-mails had a higher average mean, indicating that they spent more time than others in using the applications listed.

**Table 40 Time spent using applications according to E-mail provided**

Application	Time spent using (mean)	
	E-mail Yes	E-mail No
<b>E-mail</b>	<b>3.582</b>	2.700
<b>WWW</b>	<b>3.820</b>	2.925
<b>Search Engines</b>	<b>3.835</b>	2.825
Directories	2.298	<b>2.725</b>
Forums	<b>1.776</b>	1.650
Messengers	<b>2.313</b>	1.825
Relay Chat	1.164	<b>1.200</b>
Newsgroups	2.209	<b>2.275</b>
Listservs	1.134	<b>1.300</b>
File Transfer Protocol	.8358	<b>1.150</b>
Telnet	.6269	<b>.9500</b>
Blogs	1.044	<b>1.350</b>
<b>Real Simple Syndication</b>	.5522	<b>1.050</b>
Wikis	.5672	<b>.9250</b>
Podcasting	.8657	<b>.9000</b>
Language Tools	1.358	<b>1.400</b>
Alerts Software	1.611	<b>1.625</b>
Databases	1.074	<b>1.325</b>
Open-Source Software	.7164	<b>1.075</b>
Average mean	<b>1.652</b>	1.640
Note: The incremental scale used to measure the amount of time spent using each application ranged from 0 to 5 with 0 being no use at all, 1 for less time, 3 for average, and 5 for more time.		

#### **4.3.10 By Other Variables**

When the same data was analyzed using one-way ANOVA according to length of experience as a journalist, only one significant difference existed in terms of time spent using Relay Chat. The Tukey post-hoc test revealed that a difference existed between the “Less than 1 year” and “More than 8 but less than 12” categories. The mean for the less experienced journalists was 0.615 while the more experienced journalists scored a mean of 2.250. Therefore, more experienced journalists are more likely to spend more time using Relay Chat. Also, A significant difference existed for the time spent using File Transfer Protocol between Kuwaiti citizens (mean=0.625) and Egypt (mean=1.555). No other differences existed for the applications when analyzed by citizenship. Further, the data was analyzed by comments provided or not. There were no significant differences between respondents who did provide comments, and those who did not.

### **4.4 EXPERIENCE USING INTERNET**

Respondents were asked to provide information about the length of their experience in using the Internet. Of the 96 valid responses, the longest experience was 13 years while the shortest was one year or less. The mean for length of experience in using the Internet was 6.19 years, with a standard deviation of 3.013. Females (mean=6.344 std. dev.=2.318) had a higher mean for length of experience in using the Internet than males (mean=6.119 std. dev.=3.282). However, the difference was not significant statistically.

In term of categories, the highest percentage of females had six to nine years of experience in using the Internet at 38.71 percent. As for males, "Less than 3 years" and "6 or more but less than 9" were the highest categories in terms of percentage at 26.67 percent. Table 41 provides more information.

**Table 41 Experience in using the Internet by gender**

Age Category	Females		Males	
	Count	%	Count	%
Less than 3 years	1	3.230	<b>20</b>	<b>26.67</b>
3 or more but less than 6	11	35.48	19	25.33
6 or more but less than 9	<b>12</b>	<b>38.71</b>	<b>20</b>	<b>26.67</b>
9 or more but less than 12	6	19.35	12	16.00
12 or more	1	3.230	4	5.330
Total	31	100	75	100

#### 4.4.1 Use of E-mail

Of the 107 valid responses, 102 (87.2 percent) indicated that they used E-mail, while five (4.3 percent) did not. The remaining 10 responses (8.5 percent) were missing. On average, a journalist sends eight work-related E-mails a day and receives almost 18. Females sent and received more E-mails per day than males. Table 42 provides more data on E-mail use.

**Table 42 Quantitative data for work-related E-mails sent and received**

Statistic	Females		Males		Average	
	Sent	Received	Sent	Received	Sent	Received
Mean	10.36	22.63	7.231	15.43	8.181	17.61
Minimum	1	2	1	0	1	0
Maximum	40	100	30	70	40	100

#### 4.4.2 E-mail Attractions

Respondents were provided with seven potentially attractive features of E-mail and were asked to choose only three. The most attractive feature of E-mail was its convenience, followed by file uploading/downloading and overcoming time differences. Storage capabilities, cost, indexing and searching were not viewed as very attractive features. Two respondents listed ease-of-use and availability as "Other" attractive features. Table 43 provides more information.

**Table 43 Attractive features of E-mail**

Rank	E-mail Feature	Count
1	Convenience	75
2	File Uploading/Downloading	68
3	Overcoming Time Differences	57
4	Speed	56
5	Storage Capabilities	19
6	Cost	17
7	Indexing and Searching	11
8	Other	2

When analyzed by gender, the data revealed that females and males differed in terms of what they found attractive about E-mail. Females emphasized Speed while males emphasized Convenience. However, both genders found Cost, Storage Capabilities, and Indexing and Searching, to be less attractive features of E-mail. Overcoming Time Differences ranked third for both genders. Table 44 provides more information.

**Table 44 Attractive features of E-mail according to gender**

Females			Males		
Rank	E-mail Feature	Count	Rank	E-mail Feature	Count
1	Speed	20	1	Convenience	56
2	Convenience	19	2	File Upload/Download	52
3	Overcoming Time Diff	18	3	Overcoming Time Diff	39
4	File Upload/Download	16	4	Speed	36
5	Cost	6	5	Storage Capabilities	13
5	Storage Capabilities	6	6	Cost	11
7	Indexing & Searching	1	7	Indexing & Searching	10

#### 4.4.3 E-mail Shortcomings

Similar to E-mail attractions, respondents were asked to choose three items that worried them when using E-mail. The most frequently cited worry about E-mail was unsolicited messages, followed by hacking a user's account, and viruses. Confidentiality, lack of interaction, and time were not viewed as major shortcomings of E-mail. One respondent listed password protection as a worry. Table 45 provides more information.

**Table 45 E-mail worries/shortcomings**

Rank	Item	Count
1	Unsolicited messages (SPAM)	66
2	Hacking your E-mail account	53
3	Viruses	51
4	Fate of message unknown	39
5	Confidentiality	35
6	Lack of face-to-face interaction	32
7	Time consuming	29
8	Other	1

In terms of gender, data analysis showed that both genders are similar, and ranked Unsolicited Messages, Viruses, and Hacking E-mail Account as the top three issues that worried them about using E-mail. However, females find using E-mail to be more time consuming, and they place less importance on confidentiality than males. Table 46 provides more information.

**Table 46 E-mail worries/shortcomings by gender**

Females			Males		
Rank	E-mail Worry	Count	Rank	E-mail Worry	Count
1	Unsolicited messages	17	1	Unsolicited messages	49
2	Viruses	17	2	Hacking E-mail	38
3	Hacking E-mail	15	3	Viruses	34
4	Time consuming	11	4	Fate of message	29
5	Fate of message	10	5	Confidentiality	26
6	Lack of interaction	10	6	Lack of interaction	22
7	Confidentiality	9	7	Time consuming	18

#### **4.4.4 WWW**

Of the 107 valid responses to whether or not the respondent used the WWW, 105 respondents (89.7 percent) indicated that they did use the WWW, while two (1.7 percent) did not. The remaining 10 responses (8.5 percent) were missing. The respondents were asked to indicate the effect of the WWW on their work. 72.4 percent indicated that the WWW had a positive effect, while 21.9 percent thought the effect was neutral. Also, 5.7 percent of the respondents thought that the WWW was impacting their work negatively. Overall, journalists viewed the WWW as a positive influence on their work.

#### **4.4.5 Importance of WWW Resources**

To further examine journalists' use of the WWW, respondents were asked to rank 19 WWW resources that included sites and services. The scale provided was incremental and started from 1 for not important, 3 for average, and 5 for very important. The analysis found that journalists viewed newspaper sites (mean=3.9238) as the most important resource on the WWW, followed by Search Engines, News Services, Magazine sites, and Press Releases sites.

Nine WWW resources had a mean of below 3, or average. The lowest ranked WWW resources were Entertainment/Sports sites, Databases, and Financial/Company sites. Table 47 provides detailed information about the importance placed on every WWW resource listed. The other category included items such as specific commercial websites and other site-types that were covered in the list. Overall, journalists indicated that the WWW resources were below average in importance. The average mean for all the WWW resources was 2.9902, slightly below the average of three. Further, Cronbach's Alpha was found to be .911, indicating that the scales used were highly reliable.

**Table 47 Importance of WWW resources**

Rank	WWW Resource	N	Mean	Std. Deviation
1	Newspapers	105	3.923	1.165
2	Search Engines	105	3.904	1.326
3	News Services	105	3.685	1.280
4	Magazines	105	3.438	1.285
5	Press Releases	105	3.428	1.460
6	Scientific Information	105	3.104	1.372
7	Institutions	105	3.066	1.402
8	Government	105	3.066	1.324
9	Directories	105	3.057	1.446
10	Odd/Obscure Info.	105	2.885	1.443
11	Reference	105	2.800	1.457
12	Uploading/Downloading	105	2.761	1.390
13	Graphics/Pictures	105	2.666	1.206
14	Live Streaming Video/Audio	105	2.647	1.386
15	Journals	105	2.600	1.297
16	Statistics	105	2.590	1.237
17	Entertainment/Sports	104	2.528	1.407
18	Databases	105	2.371	1.265
19	Financial/Company	105	2.285	1.320
Average mean			2.990	
Note: The incremental scale used ranged from 1 to 5 with 1 being not important, 3 for average, and 5 for very important.				

**4.4.5.1 By Gender** An Independent Samples T-Test was conducted to explore the importance placed on the WWW resources, mentioned earlier, by gender. Significant differences by gender were present for Government sites, Institutional sites, and Search Engines. Females placed significantly more importance on the WWW resources mentioned than males did. Table 48 reflects the data for the means recorded for each gender towards each WWW resource listed, with resources recording significant differences in means in bold.

**Table 48 Importance of WWW resources by gender**

WWW Resource		N	Mean	Std. Dev.
Reference	Female	31	3.064	1.526
	Male	74	2.689	1.423
Entertainment/Sports	Female	31	2.290	1.321
	Male	73	2.630	1.438
Financial/Company	Female	31	2.322	1.375
	Male	74	2.270	1.306
<b>Government</b>	<b>Female</b>	<b>31</b>	<b>3.612</b>	<b>1.174</b>
	<b>Male</b>	<b>74</b>	<b>2.837</b>	<b>1.324</b>
Graphics/Pictures	Female	31	2.709	1.070
	Male	74	2.648	1.265
<b>Institutions</b>	<b>Female</b>	<b>31</b>	<b>3.709</b>	<b>1.321</b>
	<b>Male</b>	<b>74</b>	<b>2.797</b>	<b>1.354</b>
News Services	Female	31	3.935	1.181
	Male	74	3.581	1.313
Newspapers	Female	31	4.064	1.181
	Male	74	3.864	1.162
Magazines	Female	31	3.548	1.233
	Male	74	3.391	1.311
Press Releases	Female	31	3.645	1.355
	Male	74	3.337	1.501
Scientific Information	Female	31	3.290	1.295
	Male	74	3.027	1.404
Odd/Obscure Information	Female	31	3.193	1.492
	Male	74	2.756	1.412
<b>Search Engines</b>	<b>Female</b>	<b>31</b>	<b>4.322</b>	<b>1.136</b>
	<b>Male</b>	<b>74</b>	<b>3.729</b>	<b>1.367</b>
Statistics	Female	31	2.677	1.351
	Male	74	2.554	1.195
Directories	Female	31	3.129	1.431
	Male	74	3.027	1.461
Journals	Female	31	2.741	1.290
	Male	74	2.540	1.305
Databases	Female	31	2.387	1.174
	Male	74	2.364	1.309
Up/Download Files	Female	31	3.129	1.521
	Male	74	2.608	1.311
Live Streaming Video/Audio	Female	31	2.871	1.408
	Male	74	2.554	1.376
Average Mean	Female		<b>3.191</b>	
	Male		2.905	
Note: The incremental scale used ranged from 1 to 5 with 1 being not important, 3 for average, and 5 for very important.				

**4.4.5.2 By Age** In terms of age, a one-way ANOVA test showed that two significant differences were present between the age groups. These differences were for Institutional sites and Search Engines. A Tukey Post Hoc test identified the difference for Institutional sites to be between the youngest category, younger than 25 (mean=3.8261) and the eldest, 40 years or older (mean=2.5625). Younger journalists placed more importance on websites of institutions than their older counterparts. A similar case was present for Search Engines where the youngest age category (mean=4.6957) recorded a significant difference from the eldest (mean=3.3125). Another significant difference for Search Engines existed between the youngest age category (mean=4.6957) and the “More than 25 but less than 30” age category (mean=3.5600). The data suggests that younger journalists place more importance on Search Engines than their counterparts.

**4.4.5.3 By Journalistic Beat** One-way ANOVA identified five significant differences when the data was analyzed by journalistic beat. These occurred for Financial/Company sites, News Services, Journals, Databases, and Live Streaming Video/Audio. Full results are presented in Table 49, with the WWW resources that recorded significant differences between journalistic beats in bold. The results of the Tukey Post Hoc test revealed that the Education/Arts & Literature beat was the primary cause of the significant differences for the five WWW resources. In the case of Financial/Company sites, Education/Arts & Literature (mean=1.2143) differed significantly from three other beats- Local, Society/Health/Science, and Features. Also, results showed that feature journalists placed more importance than other groups on 14 out of the 19 WWW resources listed. Further, the average mean for all the WWW resources showed that feature reporters placed the most importance on the resources in comparison to other groups.

**Table 49 Importance of WWW resources by primary journalistic beat**

WWW Resources	Importance (mean)					
	SHS	L	PE	SE	F	EAL
Reference	3.000	3.218	2.680	2.181	<b>3.300</b>	2.357
Entertainment/Sports	2.700	2.562	1.958	<b>3.363</b>	3.200	2.500
<b>Financial/Company</b>	2.800	2.531	2.200	2.181	<b>3.200</b>	1.214
Government	3.200	3.125	3.160	2.454	<b>4.000</b>	2.642
Graphics/Pictures	2.800	2.656	2.760	2.545	<b>3.200</b>	2.071
Institutions	3.200	3.062	2.840	2.454	<b>3.800</b>	3.071
<b>News Services</b>	3.600	3.937	<b>4.200</b>	3.090	3.900	2.500
Newspapers	3.300	<b>4.156</b>	4.080	3.727	4.000	3.571
Magazines	3.100	3.593	<b>3.720</b>	3.272	3.500	2.928
Press Releases	3.200	3.562	3.640	3.272	<b>3.900</b>	2.714
Scientific Information	3.100	3.468	2.840	2.545	<b>3.600</b>	2.571
Odd/Obscure Information	2.500	2.968	2.880	2.545	<b>3.000</b>	2.928
Search Engines	3.000	4.000	4.080	3.636	3.700	<b>4.142</b>
Statistics	2.500	2.468	2.720	2.454	<b>3.600</b>	2.142
Directories	2.700	3.156	3.000	3.000	<b>3.800</b>	2.285
<b>Journals</b>	2.800	2.843	2.360	2.363	<b>3.500</b>	1.785
<b>Databases</b>	2.600	2.281	2.280	2.272	<b>3.500</b>	1.785
Uploading/Downloading Files	2.500	2.781	2.920	2.818	<b>3.400</b>	2.285
<b>Live Streaming Video/Audio</b>	2.200	2.875	2.760	2.909	<b>3.400</b>	1.714
Average mean	2.884	3.118	3.004	2.794	<b>3.552</b>	2.485
Note: The incremental scale used ranged from 1 to 5 with 1 being not important, 3 for average, and 5 for very important.						
Key: SHS=Society/Health/Science, L=Local, PE=Politics/Economics, SE=Sports/Entertainment, F=Features, EAL=Education/Arts & Literature						

**4.4.5.4 By Length of Internet Experience** Data analysis showed that as the amount of Internet experience increased, so did the amount of importance placed on the WWW resources listed. The journalists with the most Internet experience recorded an average importance of 3.0842 for the resources listed, compared to an importance average of 2.8864 for the least experience ones. Table 50 provides more information.

**Table 50 Importance of WWW resources by Internet experience**

WWW Resources	Importance (mean) by Internet experience				
	>3	3>6	6>9	9>12	12+
Reference	2.842	2.833	2.875	2.611	2.800
Entertainment/Sports	2.736	2.533	2.593	2.388	1.800
Financial/Company	2.263	2.433	2.312	2.000	2.200
Government	3.000	2.933	3.250	2.944	3.200
Graphics/Pictures	2.368	2.733	2.750	2.500	3.000
Institutions	3.052	2.766	3.312	3.222	3.000
News Services	3.947	3.700	3.437	3.833	3.800
Newspapers	3.894	3.966	3.906	4.055	3.800
Magazines	3.315	3.466	3.375	3.722	3.200
Press Releases	3.736	3.333	3.218	3.777	3.200
Scientific Information	3.210	3.133	3.062	3.055	3.000
Odd/Obscure Information	3.210	2.900	2.812	2.833	2.200
Search Engines	3.315	4.066	4.218	3.833	3.800
Statistics	2.263	2.633	2.500	2.833	3.400
Directories	2.631	3.400	2.875	3.111	3.600
Journals	2.526	2.700	2.437	2.833	2.600
Databases	2.000	2.366	2.375	2.444	3.600
Uploading/Downloading Files	2.105	2.566	3.218	2.777	3.400
Live Streaming Video/Audio	2.421	2.500	2.843	2.666	3.000
Average mean	2.886	2.998	3.019	3.023	<b>3.084</b>
Note: The incremental scale ranged from 1 to 5 with 1 being not important, 3 for average, and 5 for very important.					
Key: >3= Less than 3 years, 3>6= 3 or more but less than 6, 6>9= 6 or more but less than 9, 9>12= 9 or more but less than 12, 12+= 12 years or more					

**4.4.5.5 By Length of Experience as Journalist** Analyzing the importance of the WWW resources data by length of experience as journalists revealed one significant difference for Institutional Sites between journalists with less than one year of experience (mean=4.0769) on the one hand, and More than 4 but less than 8 (mean=2.6190) and More than 12 but less than

16 (mean=2.4619) and More than 16 years (mean=2.3636) on the other. The results imply that less experienced journalists are more likely to place more importance on Institutional sites than their more experienced counterparts.

**4.4.5.6 By Citizenship** Analysis of the same data according to citizenship identified two significant differences in the importance placed on Graphics/Pictures, and Databases. Kuwait (mean=2.4630) placed less importance on databases than citizens in the “Other” category (mean=3.8333). As for Databases, Egyptians (mean=3.3333) viewed this resources as more important than the Al-Sham citizens (mean=2.2593) and Kuwait citizens (mean=2.0741).

**4.4.5.7 By Level of Education** Only Sports/Entertainment recorded a significant difference between the groups when analyzed by level of education. Diploma holders (mean=3.7500) placed more importance on Sports/Entertainment sites than High-School graduates or lower (mean=1.9000) and Bachelor’s degree holders (mean=2.4035).

**4.4.5.8 By Primary Field of Study** Data analysis using one-way ANOVA by major revealed nine significant differences between the groups- Reference, Entertainment/Sports, Financial/Company, Government, Institutions, Odd/Obscure Information, Databases, Uploading/Downloading Files, and Live Streaming Video/Audio. Further, results showed that computer science/information technology majors placed more importance than all other majors on 10 out of the 19 WWW resources listed. Business majors placed more importance than all other majors on eight out of the 19 WWW resources.

Further, the average mean for all the WWW resources showed that computer science/information technology majors placed more importance on the resources than all other majors, with law/humanities/social sciences majors placing least importance on the same resources. Table 51 provides more information, with resources that recorded instances of significant difference between the groups in bold.

**Table 51 Importance of WWW resources by primary field of study**

WWW Resource	Importance (mean)						
	JMC	LHSS	EAL	BUS	AE	CSIT	ASE
<b>Reference</b>	2.954	2.150	3.000	4.166	2.000	<b>4.333</b>	2.666
<b>Entertainment/Sports</b>	2.476	1.950	2.470	<b>4.000</b>	2.000	3.833	2.666
<b>Financial/Company</b>	2.454	1.700	2.235	2.833	1.583	<b>3.500</b>	2.083
<b>Government</b>	3.136	3.150	3.176	3.500	2.166	<b>4.500</b>	2.583
Graphics/Pictures	2.909	2.300	2.647	2.666	2.083	<b>3.666</b>	2.666
<b>Institutions</b>	3.409	2.900	3.176	3.666	1.916	<b>4.166</b>	2.916
News Services	3.909	3.350	3.647	4.166	3.750	<b>4.333</b>	3.583
Newspapers	3.727	4.100	3.823	<b>4.666</b>	3.833	4.166	4.083
Magazines	3.318	3.300	3.411	<b>4.666</b>	3.333	3.500	3.333
Press Releases	3.681	2.850	3.411	<b>4.500</b>	3.583	3.500	3.166
Scientific Information	3.227	2.350	3.411	<b>4.166</b>	2.916	3.500	3.166
<b>Odd/Obscure Information</b>	3.181	2.250	3.411	<b>4.333</b>	2.083	3.000	2.666
Search Engines	3.863	3.950	3.882	<b>4.666</b>	3.250	4.000	4.500
Statistics	2.500	2.300	2.705	<b>3.166</b>	2.166	3.166	2.500
Directories	2.772	2.600	<b>3.647</b>	2.666	3.166	3.500	3.416
Journals	2.500	1.850	3.117	3.000	2.666	<b>3.166</b>	2.583
<b>Databases</b>	2.363	1.900	2.764	1.833	1.916	<b>3.666</b>	2.250
<b>Uploading/Downloading Files</b>	2.772	2.050	3.352	2.000	2.083	<b>4.166</b>	3.166
<b>Live Streaming Video/Audio</b>	2.818	1.800	2.882	2.333	2.416	<b>4.000</b>	2.833
Average mean	3.051	2.568	3.167	3.526	2.574	<b>3.771</b>	2.991
Note: The incremental scale used ranged from 1 to 5 with 1 being not important, 3 for average, and 5 for very important.							
Key: JMC= Journalism & Mass Communications, LHSS=Law/Humanities/Social Sciences, EAL=English/Arabic Literature, BUS=Business, AE=Arts/Education, CSIT=Computer Science/Information Technology, ASE=Applied Science/Engineering							

**4.4.5.9 By Location of Educational Institution** A one-way ANOVA test revealed only one significant difference when the data was analyzed according to the location of the educational institution which the respondent graduated from. The Tukey Post Hoc test revealed that the difference, which occurred for Newspaper websites, was between graduates from institutions in North America and Europe (mean=2.818) and those who graduated from Kuwait (mean=4.060) and the Middle East (mean=4.000).

**4.4.5.10 By Languages Known** The analysis revealed two significant differences for Uploading/Downloading Files, and Live Streaming Video/Audio. For Uploading/Downloading Files, the significant difference was between respondents who knew one language (mean=1.900) and those who knew three (mean=3.277). As for Live Streaming Video/Audio, the significant difference was between respondents who knew one language (mean=1.600), and those who knew two (mean=2.740).

## **4.5 RQ3- INFORMATION EVALUATION CRITERIA**

Data analysis showed that all evaluation criteria were viewed as important and recorded a mean of at least 3, or average, for each criterion. However, Promptness, Convenience, and Accuracy were viewed as the most important criteria for evaluating information found online. The population placed less importance on Cost, Authority, and Interactivity.

The average mean for all nine criteria showed that the population placed a higher than average importance on these criteria. The scales used for measurement were found to be highly reliable as Cronbach's Alpha was found to be .907. Table 52 provides more information.

**Table 52 Importance of evaluation criteria by population**

Rank	Evaluation Criteria	Mean	Std. Deviation
1	Promptness in Obtaining Information	3.914	1.241
2	Convenience in Obtaining Information	3.904	1.164
3	Accuracy of Information	3.857	1.259
4	Coverage of Topic	3.790	1.174
5	Objectivity of Publisher	3.523	1.256
6	Currency of Information	3.447	1.263
7	Cost of Obtaining Information	3.285	1.432
8	Authority of Publisher	3.152	1.357
9	Interactivity with Website	3.114	1.242
Average mean		3.554	
Note: The incremental scale used ranged from 1 to 5 with 1 being not important, 3 for average, and 5 for very important.			

#### 4.5.1 By Gender

When the data was examined using an Independent Samples T-Test for gender, it was found that one significant relationship existed. Females placed more importance on the Cost of Obtaining Information (mean=3.9032) than males (mean=3.0270). Promptness, Accuracy, and Coverage of Topic were the three most important evaluation criteria for females, while Convenience, Promptness, and Coverage of Topic were the top three criteria for males. The least important criterion for females was Authority of Publisher, while males placed the least importance of Interactivity with Website. Table 53 provides more detailed information with significant

differences in bold. Females found eight of the nine criteria to be more important when compared to the views of males. Males placed slightly more importance than females on Convenience.

By average mean for all the evaluation criteria, it was found that females placed more importance on the criteria than males. However, both females and males had an average mean for the criteria that was above average in importance.

**Table 53 Importance of evaluation criteria by gender**

Evaluation Criteria	Mean	
	Female	Male
Promptness in Obtaining Information	4.161	3.810
Convenience in Obtaining Information	3.903	3.905
Accuracy of Information	4.161	3.729
Coverage of Topic	3.967	3.716
Objectivity of Publisher	3.612	3.486
Currency of Information	3.451	3.445
<b>Cost of Obtaining Information</b>	<b>3.903</b>	<b>3.027</b>
Authority of Publisher	3.193	3.135
Interactivity with Website	3.354	3.013
Average mean	3.745	3.474
Note: The incremental scale used ranged from 1 to 5 with 1 being not important, 3 for average, and 5 for very important.		

#### 4.5.2 By Primary Journalistic Beat

Five significant differences were found when the data was analyzed by primary journalistic beat. The differences occurred for Promptness, Accuracy, Coverage, Objectivity, and Authority. A Tukey post-hoc test was conducted to identify which beats were significantly different. The major finding was that the Sports/Entertainment beat differed significantly than the other beats.

Journalists who listed Sports/Entertainment as their primary journalistic beat tended to place less importance on the evaluation criteria listed than their peers who covered other beats. The Sports/Entertainment beat was present in 15 out of the 18 instances where a significant difference was present. The three remaining instances involved the Society/Health/Science beat and Education/Arts & Literature twice, while the final instance involved the Society/Health/Science beat and the Local beat. Table 54 provides more information, with criteria that recorded significant differences in the means for each beat in bold.

The data showed that feature journalists, who placed more importance than others on 14 out of 19 WWW resources listed, also placed more importance than other on five out of the nine information evaluation criteria. Feature journalists placed most importance on the accuracy of information, with cost being the least important one.

Overall, Education/Arts and Literature beats journalists placed more importance on the criteria than other beat journalists in terms of average mean. Also, Sports/Entertainment beat journalists placed the least importance on the criteria.

**Table 54 Importance of evaluation criteria by primary journalistic beat**

Criteria	Importance (mean)					
	SHS	L	PE	SE	F	EAL
<b>Authority of Publisher</b>	3.000	3.062	3.320	1.909	<b>3.800</b>	3.785
<b>Accuracy of Information</b>	3.000	3.937	4.160	2.545	<b>4.400</b>	4.571
Convenience Obtaining Info.	3.200	4.000	<b>4.040</b>	3.181	4.400	4.285
Currency of Information	3.100	3.281	3.560	2.727	4.000	<b>4.071</b>
<b>Coverage of Topic</b>	3.000	3.968	3.920	2.818	<b>4.300</b>	4.214
Interactivity with Website	2.900	3.375	2.680	2.636	<b>3.900</b>	3.357
<b>Objectivity of Publisher</b>	3.100	3.656	3.520	2.545	<b>4.100</b>	4.071
<b>Promptness Obtaining Info.</b>	3.000	4.250	3.920	2.909	4.400	<b>4.428</b>
Cost of Obtaining Information	3.000	3.218	3.240	3.090	3.200	<b>4.000</b>
Average mean	3.033	3.638	3.595	2.707	4.055	<b>4.087</b>
Note: The incremental scale used ranged from 1 to 5 with 1 being not important, 3 for average, and 5 for very important.						
Key: SHS=Society/Health/Science, L=Local, PE=Politics/Economics, SE=Sports/Entertainment, F=Features, EAL=Education/Arts & Literature						

### 4.5.3 By Internet Experience

Data analysis revealed that length of Internet experience affected the importance of the evaluation criteria listed. Journalists with more Internet experience placed more importance on the evaluation criteria in comparison to ones with less Internet experience. The most Internet experienced journalists recorded an average mean of importance for all criteria of 4.4222 compared to 2.9357, or below average, for the least Internet experienced journalists. Table 55 provides more information.

**Table 55 Importance of evaluation criteria by Internet experience**

Criteria	Importance (mean) by Internet experience				
	>3	3>6	6>9	9>12	12+
Authority of Publisher	2.368	3.466	3.156	3.055	4.400
Accuracy of Information	3.052	4.066	4.031	3.833	4.600
Convenience Obtaining Info.	3.578	3.933	3.968	3.888	4.800
Currency of Information	2.684	3.633	3.406	3.555	4.800
Coverage of Topic	3.105	4.000	3.843	3.833	4.400
Interactivity with Website	2.684	3.400	3.156	2.833	3.600
Objectivity of Publisher	2.894	3.833	3.406	3.611	4.400
Promptness Obtaining Info.	3.526	4.033	4.125	3.666	4.600
Cost of Obtaining Information	2.526	2.233	3.562	3.500	4.200
Average mean	2.935	3.622	3.628	3.530	<b>4.422</b>
Note: The incremental scale used ranged from 1 to 5 with 1 being not important, 3 for average, and 5 for very important.					
Key: >3= Less than 3 years, 3>6= 3 or more but less than 6, 6>9= 6 or more but less than 9, 9>12= 9 or more but less than 12, 12+= 12 years or more					

#### **4.5.4 By Other Variables**

Data analysis of the evaluation criteria by age, length of experience as a journalist, citizenship, primary field of study, and the number of languages known yielded no significant differences between the groups. However, the location of the educational institution that the respondent graduated from and level of education reflected one significant difference between the groups.

The location of the educational institution affected the Interactivity with Website criterion. The Tukey Post Hoc test revealed that respondents who graduated from North America or Europe placed significantly more importance (mean=3.9091) on Interactivity than their counterparts who graduated from an institution in the Middle East (mean=2.8049).

As for level of education, the groups differed significantly for the Promptness criterion (Sig. =.017). High-school or lower respondents (mean=4.4500) placed more importance on Promptness in obtaining information than respondents who held a Master's degree or higher (mean=3.0909).

### **4.6 RQ4- INTERNET AND JOURNALISTIC TASKS**

Data analysis revealed that finding difficult-to-find facts was the most important task that the Internet was used for in terms of completing journalistic tasks. On a scale ranging from 1 for not important, and 5 for very important, respondents viewed finding difficult-to-find facts, finding latest news to put in story, and finding documents to cite in a news item, as the top three tasks where Internet use was important. Using the Internet was less important for defining terms of

concepts, finding story ideas, and writing editorials, features, opinions, and analysis. Table 56 provides more information. The average mean for all tasks was found to be above average, indicating that in general, the population viewed the Internet as important for conducting the tasks listed. The scales used for measurement were found to be highly reliable, as Cronbach's Alpha was found to be .912.

**Table 56 Importance of Internet use for conducting tasks by population**

Rank	Task	Internet Importance (Mean)	Std. Deviation
1	Find difficult-to-find facts	4.009	1.078
2	Latest news to put in story	3.933	1.178
3	Documents to cite in a news item	3.904	1.180
4	Find photographs	3.800	1.251
5	Fact-checking and verification	3.771	1.195
6	Background for news item	3.628	1.367
7	Statistics for a news item	3.628	1.137
8	Contact sources	3.542	1.255
9	Conduct research	3.523	1.359
10	Define terms of concepts	3.514	1.323
11	Find story ideas	3.504	1.316
12	Write editorial/feature/opinion/analysis	2.961	1.300
Average mean		3.643	
Note: The incremental scale used ranged from 1 to 5 with 1 being not important, 3 for average, and 5 for very important.			

#### **4.6.1 By Gender**

Data analysis revealed that males and females did not record significant differences in means for any of the tasks listed. However, females, in comparison to males, found the Internet to be more important for conducting eight of the 12 tasks provided. Further, the Internet was found to be

below average in importance by females for writing editorials, features, opinion-pieces, and editorials. For all other tasks, the Internet was found to be average or higher in importance by both genders. Further, the average mean for all tasks indicated that females, in comparison to males, viewed the Internet as more important. Table 57 provides more information.

**Table 57 Importance of Internet use for conducting tasks by gender**

Rank	Task	Gender	Internet Importance (Mean)	Std. Deviation
1	Find difficult-to-find facts	Female	4.225	1.043
		Male	3.918	1.146
2	Latest news to put in story	Female	4.064	1.236
		Male	3.878	1.158
3	Documents to cite in a news item	Female	4.096	1.247
		Male	3.824	1.151
4	Find photographs	Female	3.967	1.328
		Male	3.729	1.219
5	Fact-checking and verification	Female	3.935	1.209
		Male	3.702	1.190
6	Background for news item	Female	3.645	1.495
		Male	3.621	1.321
7	Statistics for a news item	Female	3.516	1.179
		Male	3.675	1.123
8	Contact sources	Female	3.483	1.179
		Male	3.567	1.293
9	Conduct research	Female	3.645	1.403
		Male	3.473	1.346
10	Define terms of concepts	Female	3.677	1.221
		Male	3.445	1.366
11	Find story ideas	Female	3.483	1.546
		Male	3.513	1.219
12	Write editorial/feature/opinion/analysis	Female	2.741	1.210
		Male	3.054	1.333
Average mean		Female	3.707	
		Male	3.617	
Note: The incremental scale used ranged from 1 to 5 with 1 being not important, 3 for average, and 5 for very important.				

## 4.6.2 By Age

Analyzing the data by age revealed two significant differences. Both instances were between the same age groups- Younger than 25 years and 40 years or older. The younger respondents place more importance on using the Internet to find difficult-to-find facts and fact-checking and verification than their older counterparts.

Further, results showed that the youngest journalists, younger than 25 years old, were the biggest group indicating the Internet was important for conducting 11 out of the 12 tasks listed. Finding difficult-to-find facts was the most important task requiring Internet use as indicated by the youngest journalists. The same age group indicated that using the Internet was least important for writing editorials, etc. The average mean supported earlier findings, indicating that the youngest journalists viewed the Internet as important for all the tasks more than the other age groups. The oldest age group was the one that placed least importance, by average mean, on the Internet for conducting the tasks listed. Table 58 provides more information, with tasks recording significant differences in the means of the age groups in bold.

**Table 58 Importance of Internet use for conducting tasks by age**

Task	Importance of using Internet (mean)				
	<25	25>30	30>35	35>40	40+
Background for news item	<b>4.217</b>	3.440	3.647	3.250	3.625
Documents to cite in news item	<b>4.434</b>	3.720	3.823	3.750	3.750
Latest news to put in story	<b>4.260</b>	4.160	3.941	3.666	3.500
Statistics for a news item	<b>3.869</b>	3.680	3.470	3.666	3.312
Contact sources	<b>3.826</b>	3.560	3.647	3.416	3.187
Define terms of concepts	<b>4.173</b>	3.280	3.235	3.458	3.312
Find photographs	<b>4.347</b>	3.720	3.529	3.791	3.437
Find story ideas	3.782	3.440	3.470	<b>3.833</b>	2.750
<b>Find difficult-to-find facts</b>	<b>4.608</b>	3.880	3.882	4.083	3.375
<b>Fact-checking and verification</b>	<b>4.391</b>	3.800	3.470	3.875	3.000
Write editorials etc.	<b>3.391</b>	2.720	3.058	2.875	2.750
Conduct research	<b>3.869</b>	3.480	3.411	3.583	3.125
Average mean	<b>4.097</b>	3.573	3.549	3.604	3.260
Note: The incremental scale used ranged from 1 to 5 with 1 being not important, 3 for average, and 5 for very important.					
Key: <25=Younger than 25 years old, 25>30=25 or older but younger than 30, 30>35=30 or older but younger than 35, 35>40=35 or older but younger than 40, 40+=40 years or older					

### 4.6.3 By Length of Experience as Journalist

Analysis by length of experience revealed two significant differences for two tasks- defining terms of concepts, and conducting research. Less experienced journalists tended to place greater importance on the Internet for the two tasks mentioned in comparison to the more experienced ones. Table 59 provides more information, with tasks recording significant differences in means in bold.

Data from Table 59 shows that the least experienced journalists, with less than one year of experience, placed more importance on using the Internet to conduct all 12 tasks, with documents to cite and finding difficult-to-find facts being the two most important tasks. By average mean, the least experienced journalists placed more importance on the Internet for conducting tasks, while more experienced ones placed the least importance on the Internet. However, all journalists regardless of length of experience found the Internet to be more than average in importance for conducting tasks.

**Table 59 Importance of Internet use by length of experience as journalist**

Task	Importance of using Internet (mean)					
	>1	1>4	4>8	8>12	12>16	16+
Background for news item	<b>4.230</b>	3.461	3.571	3.600	3.615	3.454
Documents to cite in news item	<b>4.692</b>	3.653	3.714	4.050	3.769	3.727
Latest news to put in story	<b>4.615</b>	3.769	3.857	4.150	3.615	3.545
Statistics for a news item	<b>3.923</b>	3.500	3.571	3.850	3.000	3.909
Contact sources	<b>4.000</b>	3.615	3.381	3.550	3.230	3.454
<b>Define terms of concepts</b>	<b>4.461</b>	3.461	3.000	3.700	3.076	3.545
Find photographs	<b>4.384</b>	3.769	3.857	3.800	3.538	3.363
Find story ideas	<b>4.153</b>	3.346	3.381	3.850	3.076	3.090
Find difficult-to-find facts	<b>4.692</b>	4.153	3.666	3.950	4.076	3.454
Fact-checking and verification	<b>4.384</b>	3.769	3.714	3.800	3.615	3.181
Write editorials etc.	<b>3.846</b>	2.923	2.761	2.850	2.538	3.000
<b>Conduct research</b>	<b>4.307</b>	3.000	3.857	3.600	3.461	3.000
Average mean	<b>4.307</b>	3.535	3.527	3.729	3.384	3.393
Note: The incremental scale used ranged from 1 to 5 with 1 being not important, 3 for average, and 5 for very important.						
Key: >1= Less than 1 year, 1>4= 1 or more but less than 4, 4>8= 4 or more but less than 8, 8>12= 8 or more but less than 12, 12>16= 12 or more but less than 16, 16+= 16 years or more						

#### 4.6.4 By Internet Experience

Data analysis revealed that Internet experience affected preferences to a certain degree. As Internet experience increased, so did the amount of importance placed on the Internet for conducting journalistic tasks. However, that importance peaks after nine years of Internet experience, and starts to decrease. Journalists with six or more years but less than nine years of experience in using the Internet placed the most importance on the Internet for conducting journalistic tasks. Table 60 provides more information.

**Table 60 Importance of Internet use by Internet experience**

Task	Importance of using Internet (mean) by Internet experience				
	>3	3>6	6>9	9>12	12+
Background for news item	3.157	3.700	3.968	3.611	3.000
Documents to cite in news item	3.684	4.066	4.125	3.666	3.200
Latest news to put in story	3.789	4.033	4.125	3.722	3.600
Statistics for a news item	3.684	3.600	3.781	3.333	3.600
Contact sources	3.842	3.166	3.718	3.611	3.400
Define terms of concepts	3.473	3.466	3.875	3.222	2.800
Find photographs	3.526	4.000	4.062	3.500	3.400
Find story ideas	3.947	3.233	3.718	3.222	3.000
Find difficult-to-find facts	4.268	4.033	4.187	3.555	3.200
Fact-checking and verification	3.947	3.933	3.937	3.277	3.000
Write editorials etc.	2.894	2.700	3.406	2.833	2.600
Conduct research	3.315	3.433	3.656	3.611	3.600
Average mean	3.627	3.613	<b>3.880</b>	3.430	3.200
Note: The incremental scale used ranged from 1 to 5 with 1 being not important, 3 for average, and 5 for very important.					
Key: >3= Less than 3 years, 3>6= 3 or more but less than 6, 6>9= 6 or more but less than 9, 9>12= 9 or more but less than 12, 12+= 12 years or more					

#### 4.6.5 By Citizenship

Four significant differences were identified by the ANOVA test conducted on the data for citizenship. Differences occurred for documents to cite in a news item, latest news to put in story, finding difficult-to-find facts, and, fact-checking and verification. The Tukey Post Hoc test revealed that in all four instances where a significant difference occurred, it was between Kuwaiti citizens and citizens of the Al-Sham countries (Lebanon/Syria/Palestine/Jordan). Kuwaiti citizens placed significantly more importance on the four tasks mentioned than their Al-Sham counterparts.

Further, the data in table 61 shows that citizens in the other category, including the USA, Czech Republic, Iraq, and the Philippines, placed more importance on the Internet than others to conduct seven out of the 12 tasks listed. Out of the Arabs, Kuwaiti citizens placed more importance on the Internet for conducting five out of the 12 tasks listed.

Also, the average mean for all tasks showed that although citizens from other countries placed more importance on the Internet for the largest number of tasks, Kuwaiti citizens placed more importance on the Internet for all the tasks. Also, citizens of the Al-Sham countries placed least importance on the Internet for conducting all tasks listed. Table 61 provides more information, with tasks that recorded significant difference in means in bold.

**Table 61 Importance of Internet use by citizenship**

Task	Importance of using Internet (mean)			
	Kuwait	Egypt	Al-Sham	Other
Background for news item	3.796	3.722	3.185	<b>3.833</b>
<b>Documents to cite</b>	<b>4.185</b>	4.000	3.333	3.666
<b>Latest news to put in story</b>	<b>4.203</b>	4.055	3.333	3.833
Statistics for a news item	<b>3.759</b>	3.611	3.407	3.500
Contact sources	3.648	3.555	3.296	<b>3.666</b>
Define terms of concepts	3.611	3.166	3.518	<b>3.666</b>
Find photographs	3.925	3.833	3.481	<b>4.000</b>
Find story ideas	3.759	3.055	3.185	<b>4.000</b>
<b>Find difficult-to-find facts</b>	<b>4.240</b>	4.055	3.518	4.000
<b>Fact-checking and verification</b>	<b>4.000</b>	3.944	3.185	3.833
Write editorials etc.	3.240	2.722	2.481	<b>3.333</b>
Conduct research	3.611	3.500	3.333	<b>3.666</b>
Average mean	<b>3.831</b>	3.601	3.271	3.750
Note: The incremental scale used ranged from 1 to 5 with 1 being not important, 3 for average, and 5 for very important.				
Key: Kuwait=Kuwait, Egypt=Egypt, Al-Sham=Lebanon/Syria/Palestine/Jordan, Other=USA, Czech Republic, Iraq, and the Philippines				

#### 4.6.6 By Location of Educational Institution

Data analysis revealed that the location of the educational that the respondent graduated from affected perceived importance of the Internet for conducting eight tasks. The location of Kuwait was found in all nine instances where a significant difference existed. Further, in all instances except two, the significant difference was between institutions located in Kuwait, and those located in North America and Europe. Table 62 provides more information, with tasks that recorded significant differences in means in bold.

Further, table 62 shows that graduates from institutions in Kuwait placed more importance than others on the Internet's importance to conduct all 12 tasks listed. Also, the average mean for all tasks showed that Kuwait graduates placed most importance on the Internet, followed by ones from the Middle East and then North America/Europe.

**Table 62 Importance of Internet use by location of educational institution**

Task	Importance of using Internet (mean)		
	KUW	ME	NAE
<b>Background for news</b>	<b>3.900</b>	3.487	2.636
<b>Documents to cite</b>	<b>4.200</b>	3.731	3.000
<b>Latest news to put in story</b>	<b>4.240</b>	3.731	3.090
Statistics for a news item	<b>3.740</b>	3.609	2.909
<b>Contact sources</b>	<b>3.740</b>	3.512	2.727
Define terms of concepts	<b>3.700</b>	3.414	2.727
<b>Find photographs</b>	<b>4.060</b>	3.658	2.909
Find story ideas	<b>3.820</b>	3.219	3.272
<b>Find difficult-to-find facts</b>	<b>4.320</b>	3.780	3.363
<b>Fact-checking/verification</b>	<b>4.080</b>	3.609	3.000
<b>Write editorials etc.</b>	<b>3.360</b>	2.512	2.727
Conduct research	<b>3.680</b>	3.390	3.090
Average mean	<b>3.903</b>	3.471	2.954
Note: The incremental scale used ranged from 1 to 5 with 1 being not important, 3 for average, and 5 for very important.			
Key: KUW=Kuwait, ME=Middle East, NAE=North America/Europe			

#### **4.6.7 By Languages Known**

Three tasks reflected significant differences when the data was analyzed by the number of languages known by respondents. Respondents who knew three languages or more viewed the Internet as most important for finding story ideas (mean=4.2222) and conducting research (mean=4.4444) while respondents who knew only one language viewed the Internet as most important for conducting fact-checking and verification.

Further, table 63 shows that journalists who knew three languages placed more importance on using the Internet to conduct seven out of the 12 tasks listed, followed by ones who knew a single language, who placed more importance on the Internet for conducting five out of the 12 tasks. Journalists who knew two languages did not place more importance than others for all the tasks listed. The average mean for all tasks supported previous findings, and showed that journalists who knew three languages or more viewed the Internet as important for conducting all tasks in general. Table 63 provides more information.

**Table 63 Importance of Internet use by number of languages**

Task	Importance of using Internet (mean)		
	1	2	3+
Background for news	3.800	3.454	<b>4.277</b>
Documents to cite	4.000	3.779	<b>4.388</b>
Latest news to put in story	4.000	3.844	<b>4.277</b>
Statistics for a news item	<b>4.000</b>	3.532	3.833
Contact sources	<b>3.700</b>	3.506	3.611
Define terms of concepts	3.700	3.363	<b>4.055</b>
Find photographs	<b>4.400</b>	3.662	4.055
<b>Find story ideas</b>	3.600	3.324	<b>4.222</b>
Find difficult-to-find facts	<b>4.600</b>	3.844	4.388
<b>Fact-checking/verification</b>	<b>4.600</b>	3.584	4.111
Write editorials etc.	2.100	3.000	<b>3.277</b>
<b>Conduct research</b>	2.700	3.415	<b>4.444</b>
Average mean	3.766	3.526	<b>4.078</b>
Note: The incremental scale used ranged from 1 to 5 with 1 being not important, 3 for average, and 5 for very important.			
Key: 1= One language, 2= Two languages, 3+= Three or more languages known			

#### 4.6.8 By Other Variables

Data analysis by primary journalistic beat, level of education, and major field of study revealed no significant differences between the groups. Therefore, results will not be displayed.

## 4.7 RQ5- INTERNET FOR INFORMATION

The population was asked to indicate the likeliness of them using the Internet to find specific types of information, such as information related to society, economics, politics, etc. An incremental scale that commenced with 1 for less likely to use the Internet, 3 for average, and 5 for more likely, was provided.

Data analysis showed that the most likely type of news that would point journalists to the Internet was Political (mean=3.2286), followed by Arts and Culture, and Tourism. From the data, it is less likely that journalists would use the Internet to find information about Entertainment, Security and Defense, and Energy and Industrial (mean=2.4095).

Despite these findings, the data showed that in general, journalists are less likely to use the Internet to find information about any type or coverage, as the highest type or coverage, political, recorded a mean that was fractionally above average on the evaluation scale. Further, the population's average mean for all information types listed was below average, indicating that journalists were less likely to use the Internet to search for any of the information types listed. Table 64 provides more information. The scales were found to be highly reliable as Cronbach's Alpha was found to be .896.

**Table 64 Likelihood of using Internet for information by population**

Rank	Information Type/Coverage	Likelihood of using Internet (Mean)	Std. Deviation
1	Political	3.228	1.462
2	Arts & Culture	3.200	1.423
3	Tourism	3.009	1.477
4	Educational	3.009	1.403
5	Historical & Geographical	2.981	1.454
6	Sports	2.895	1.473
7	Health & Environment	2.819	1.342
8	Science & Technology	2.800	1.347
9	Business & Economy	2.761	1.477
10	Entertainment	2.666	1.313
11	Security & Defense	2.619	1.410
12	Energy & Industrial	2.409	1.313
Average mean		2.866	
Note: The incremental scale used ranged from 1 to 5 with 1 being less, 3 for average, and 5 for more likely			

#### 4.7.1 By Gender

Analysis by gender identified one significant difference- Sports. Females (mean=2.4516) were less likely to use the Internet to find information about sports than males (mean=3.0811). However, the mean scores for males were higher than females for eight of the 12 types of information provided, implying that males are more likely than females to use the Internet for the different types of information.

By average mean for all 12 information types, it was found the males were more likely than females to use the Internet. However, both males and females were below average in the likelihood to use the Internet. Table 65 provides more information, with the information type recording a significant difference in means in bold.

**Table 65 Likeliness of using Internet by gender**

Rank	Information Type/Coverage	Gender	Likeliness of using Internet (Mean)	Std. Deviation
1	Political	Female	3.064	1.547
		Male	3.297	1.430
2	Arts & Culture	Female	3.419	1.522
		Male	3.108	1.380
3	Tourism	Female	2.871	1.648
		Male	3.067	1.407
4	Educational	Female	3.322	1.300
		Male	2.878	1.433
5	Historical & Geographical	Female	2.806	1.579
		Male	3.054	1.403
<b>6</b>	<b>Sports</b>	<b>Female</b>	<b>2.451</b>	<b>1.362</b>
		<b>Male</b>	<b>3.081</b>	<b>1.487</b>
7	Health & Environment	Female	3.032	1.494
		Male	2.729	1.274
8	Science & Technology	Female	2.774	1.359
		Male	2.810	1.351
9	Business & Economy	Female	2.677	1.514
		Male	2.797	1.471
10	Entertainment	Female	2.548	1.362
		Male	2.716	1.298
11	Security & Defense	Female	2.516	1.338
		Male	2.662	1.445
12	Energy & Industrial	Female	2.354	1.330
		Male	2.432	1.314
Average mean		Female	2.819	
		Male	2.886	
Note: The incremental scale used ranged from 1 to 5 with 1 being less, 3 for average, and 5 for more likely				

## 4.7.2 By Internet Experience

The amount of Internet experience affected journalists' behaviors to a certain degree, until it peaked and then started to decline. Data analysis showed that journalists with less Internet experience are more likely to use the Internet to retrieve information. However, nine years of Internet experience was found to be the peak, where journalists record a decline after that in their likeliness to use the Internet for the information types listed. Table 66 provides more information.

**Table 66 Likeliness of using Internet by Internet experience**

Information Type/Coverage	Likeliness of using Internet (Mean)				
	>3	3>6	6>9	9>12	12+
Political	3.052	3.400	3.218	3.388	2.400
Arts & Culture	3.000	3.166	3.468	3.111	2.800
Tourism	2.842	2.933	3.343	2.833	2.400
Educational	2.736	3.066	3.343	2.722	2.600
Historical & Geographical	2.894	2.866	3.031	3.222	2.800
Sports	2.789	2.666	3.218	3.111	1.800
Health & Environment	2.736	2.933	2.968	2.555	2.400
Science & Technology	2.526	2.933	3.062	2.500	2.200
Business & Economy	2.315	2.500	3.062	3.222	2.400
Entertainment	2.526	2.733	2.968	2.277	2.400
Security & Defense	2.368	2.633	2.500	3.055	2.600
Energy & Industrial	2.105	2.400	2.687	2.333	2.000
Average mean	2.657	2.852	<b>3.073</b>	2.861	2.400
Note: The incremental scale used ranged from 1 to 5 with 1 being less, 3 for average, and 5 for more likely					
Key: >3= Less than 3 years, 3>6= 3 or more but less than 6, 6>9= 6 or more but less than 9, 9>12= 9 or more but less than 12, 12+= 12 years or more					

### 4.7.3 By Level of Education

The one-way ANOVA test revealed two significant differences between the level of education groups. A Tukey Post Hoc test revealed the difference to be between Bachelor degree holders and Diploma holders in both instances where a significant difference existed. Bachelor-degree holders were more likely to use the Internet to find information related to politics and education than diploma-holders.

Also, table 67 shows that the most educated journalists, with Master's degrees or higher, were the most likely to use the Internet for eight out of the 12 information types listed. Journalists with less than a Bachelor's degree were the most likely to use the Internet for three out of the 12 information types listed. In terms of average mean, covering the likeliness of using the Internet to find any type of the 12 information types provided, Master's degree holders or higher were the most likely group to use the Internet. Diploma degree holders were least likely to use the Internet to find information about any of the 12 information types listed, with an average mean of 1.9375. Table 67 provides more information, with information types that recorded significant differences in the means of the groups in bold.

**Table 67 Likeliness of using Internet by level of education**

Information Type/Coverage	Likeliness of using Internet (Mean)			
	High School or lower	Diploma	Bachelor's	Master's or higher
<b>Political</b>	3.450	2.375	<b>3.473</b>	3.000
Arts & Culture	<b>3.650</b>	2.812	3.245	2.909
Tourism	3.250	3.125	2.807	<b>3.636</b>
<b>Educational</b>	3.200	2.125	3.140	<b>3.454</b>
Historical & Geographical	<b>3.100</b>	2.875	2.982	3.090
Sports	2.600	<b>3.187</b>	2.929	3.000
Health & Environment	2.750	2.437	2.894	<b>3.272</b>
Science & Technology	2.750	2.500	2.877	<b>3.090</b>
Business & Economy	2.500	2.125	3.000	<b>3.090</b>
Entertainment	2.500	2.250	2.754	<b>3.272</b>
Security & Defense	2.000	2.375	2.842	<b>3.090</b>
Energy & Industrial	1.950	1.937	2.578	<b>3.181</b>
Average mean	2.808	2.510	2.960	<b>3.174</b>
Note: The incremental scale used ranged from 1 to 5 with 1 being less, 3 for average, and 5 for more likely				

#### **4.7.4 By Primary Field of Study**

The data analysis revealed two significant differences when analyzed by primary field of study. English/Arabic Literature majors (mean=3.4706) were significantly more likely to use the Internet to find information about Entertainment than Law/Humanities/Social Science majors (mean=2.2000).

The second significant difference occurred in Health and Environment. Business majors (mean=4.0000) were significantly more likely to use the Internet to find such information than Applied Science/Engineering majors (mean=2.0833).

#### **4.7.5 By Languages Known**

Analysis by number of languages known by respondents revealed six instances of significant differences in the means of the groups at the .05 level. In five of the six instances, respondents who knew three languages or more were nearly twice as likely to use the Internet to find information about Business & Economy, Entertainment, Sports, and Tourism, than their counterparts who knew one and two languages respectively. Respondents who knew only one language were least likely to use the Internet for the four types of information mentioned.

Further, table 68 shows that journalists who knew three languages or more were most likely to use the Internet for all 12 information types listed. Also, the average mean for all the information types showed that journalists who knew three languages or more were most likely to use the Internet for information, followed by ones who knew two languages. Journalists who knew only one language were least likely to use the Internet for information. Table 68 provides more information.

**Table 68 Likeliness of using Internet by languages known**

Information Type/Coverage	Likeliness of using Internet (Mean)		
	1	2	3+
Political	3.200	3.207	<b>3.333</b>
Arts & Culture	3.200	3.168	<b>3.333</b>
<b>Tourism</b>	2.100	2.974	<b>3.666</b>
Educational	2.500	2.987	<b>3.388</b>
Historical & Geographical	2.700	2.909	<b>3.444</b>
<b>Sports</b>	1.900	2.831	<b>3.722</b>
Health & Environment	2.300	2.727	<b>3.500</b>
Science & Technology	2.200	2.779	<b>3.222</b>
<b>Business &amp; Economy</b>	1.500	2.766	<b>3.444</b>
<b>Entertainment</b>	1.800	2.636	<b>3.277</b>
Security & Defense	2.100	2.597	<b>3.000</b>
Energy & Industrial	1.800	2.376	<b>2.888</b>
Average mean	2.275	2.830	<b>3.351</b>
Note: The incremental scale used ranged from 1 to 5 with 1 being less, 3 for average, and 5 for more likely			
Key: 1= One language known, 2= Two language known, 3+= Three or more languages known			

#### **4.7.6 By Other Variables**

Data analysis did not reveal any significant differences when analysis was done by length of experience as a journalist, citizenship, and location of educational institution. However, one significant difference existed when data was analyzed by primary journalistic beat. The difference was for Business and Economy information. The Politics/Economics beats journalists were more likely to use the Internet (mean=3.4000) to find Business and Economy information than journalists who covered Education/Arts and Literature (mean=1.9286).

## 4.8 RQ6- SKILLS AND USAGE

Journalists were asked to indicate their skill-level in using each of 21 applications listed on an incremental scale starting at 1 for novice, 3 for average, and 5 for expert. Data analysis revealed that journalists were most skilled in using E-mail (mean=3.512), the WWW (mean=3.478), and Operating Systems (3.102). However, the data revealed that journalists were skilled at less than the average level in using 17 out of the 21 applications listed, as fifth ranked Audio/Video Software recorded a skill-level mean of 2.555, or below the average of 3 according to the scale provided. Further, journalists were least skilled in using more recent information technologies and applications such as Podcasting, RSS Feeds, and Wikis. Further, the average mean for all applications listed showed that journalists were below average in skill-level. Table 69 provides more information. The scales used were found to be highly reliable as Cronbach's Alpha was found to be .956 for the 21 items listed.

**Table 69 Ranking of applications according to journalists' skill-levels**

Rank	Application	Skill-Level Mean	Std. Deviation
1	E-mail	3.512	1.669
2	WWW	3.478	1.648
3	Operating Systems	3.102	1.470
4	Word Processing	3.025	1.516
5	Audio/Video Software	2.555	1.572
6	Web Browsers	2.453	1.435
7	Readers	2.393	1.496
8	Communication	2.367	1.500
9	Spreadsheets	2.316	1.356
10	Anti-Virus Software	2.188	1.338
11	Databases	2.136	1.338
12	Alerts Software	2.094	1.383
13	Presentation Software	2.094	1.426
14	Language Tools	2.076	1.352
15	Blogs	1.957	1.315
16	Telnet	1.906	1.166
17	File Transfer Protocol	1.897	1.199
18	Web Design Software	1.632	1.030
19	Podcasting	1.581	.9219
20	Real Simple Syndication (RSS) Feeds	1.453	.8040
21	Wikis	1.401	.8100
Average mean		2.267	
Note: The incremental scale used ranged from 1 to 5 with 1 being novice, 3 being average, and 5 being expert			

#### **4.8.1 By Gender**

The same data was analyzed by gender using an Independent Samples T-Test. Results showed that females and males differed in skill-level in 11 of the 21 applications listed. For each significant difference, females were more skilled than males in using an application. Applications included the WWW, E-mail, Word Processing, Operating Systems, Audio/Video

Software, Communication, Spreadsheets, Databases, Language Tools, Alerts Software, and Presentation Software. Further, the analysis showed that females were more skilled than males in using all of the applications listed, as their means were always higher than those for males.

Although females were more skilled than males in using the applications listed, both females and males did not record means equal to or higher than average (3 on the scale) for 16 of the 21 applications listed. Females recorded means higher than average for five applications, while males were higher than average for the WWW and E-mail only. By average mean for all applications, females were more skilled than males. However, both males and females were below average in skill-level. Table 70 provides more information, with significant differences in bold.

**Table 70 Skill-level of journalists by gender**

Application	Skill-Level Mean		Sig.
	Females	Males	
<b>WWW</b>	<b>4.151</b>	<b>3.214</b>	<b>.005</b>
<b>E-mail</b>	<b>4.121</b>	<b>3.273</b>	<b>.013</b>
<b>Word Processing</b>	<b>3.787</b>	<b>2.726</b>	<b>.001</b>
<b>Operating Systems</b>	<b>3.727</b>	<b>2.857</b>	<b>.004</b>
<b>Audio/Video Software</b>	<b>3.060</b>	<b>2.357</b>	<b>.029</b>
<b>Communication</b>	<b>2.939</b>	<b>2.142</b>	<b>.009</b>
<b>Spreadsheets</b>	<b>2.787</b>	<b>2.131</b>	<b>.018</b>
<b>Databases</b>	<b>2.697</b>	<b>1.916</b>	<b>.004</b>
<b>Language Tools</b>	<b>2.697</b>	<b>1.833</b>	<b>.002</b>
<b>Alerts Software</b>	<b>2.575</b>	<b>1.904</b>	<b>.018</b>
Readers	2.545	2.333	.493
<b>Presentation Software</b>	<b>2.545</b>	<b>1.916</b>	<b>.031</b>
Web Browsers	2.515	2.428	.770
Anti-Virus Software	2.363	2.119	.376
Blogs	2.212	1.857	.190
File Transfer Protocol	2.181	1.785	.108
Telnet	2.090	1.833	.285
Web Design Software	1.848	1.547	.156
Wikis	1.545	1.345	.231
Podcasting	1.697	1.535	.397
RSS Feeds	1.484	1.440	.790
Average mean	<b>2.646</b>	2.119	
Note: The incremental scale used ranged from 1 to 5 with 1 being novice, 3 being average, and 5 being expert			

## 4.8.2 By Age

Data for skill-level was analyzed by age using a one-way ANOVA test. The results revealed that the groups differed in skill-level for five applications including the WWW, E-mail, Audio/Video Software, Spreadsheets, and Language Tools. A Tukey Post Hoc test was conducted to identify these differences resulting in eight instances of difference. In all eight instances where a significant difference existed, the age category Younger than 25 was always present. Younger journalists were more skilled than their older counterparts in using the five applications listed.

Further, table 71 shows that the youngest journalists were most skilled of all age groups in using 16 out of the 21 applications listed. In terms of average mean for all the applications by age, the youngest journalists were the most skilled in using the applications. However, their average mean of 2.6819 was below average and indicated a need for improvement. The least skilled journalists by average mean for all the applications listed were the oldest journalists, who were 40 years or older. Table 71 provides more information about the differences.

**Table 71 Skill-level of journalists by age**

Application	Skill-level (mean)				
	<25	25>30	30>35	35>40	40+
<b>WWW</b>	<b>4.400</b>	3.230	2.900	3.392	3.333
<b>E-mail</b>	<b>4.440</b>	3.538	3.000	3.428	2.888
Word Processing	<b>3.680</b>	3.076	2.400	2.964	2.833
Operating Systems	<b>3.760</b>	3.076	2.600	3.071	2.833
<b>Audio/Video Software</b>	<b>3.440</b>	2.423	2.350	2.428	1.944
Communication	<b>2.720</b>	2.384	2.050	2.464	2.055
<b>Spreadsheets</b>	<b>2.520</b>	2.346	2.100	2.392	2.111
Databases	<b>2.400</b>	2.192	1.900	2.214	1.833
<b>Language Tools</b>	<b>2.920</b>	1.884	2.000	1.892	1.555
Alerts Software	<b>2.440</b>	1.923	2.150	2.250	1.555
Readers	<b>2.840</b>	2.384	2.000	2.392	2.222
Presentation Software	<b>2.800</b>	2.000	1.800	2.035	1.666
Web Browsers	2.680	2.346	2.300	<b>2.714</b>	2.055
Anti-Virus Software	<b>2.600</b>	2.115	1.850	2.285	1.944
Blogs	2.160	<b>2.230</b>	1.700	1.964	1.555
File Transfer Protocol	2.040	1.923	1.700	<b>2.142</b>	1.500
Telnet	1.880	1.730	1.750	<b>2.392</b>	1.611
Web Design Software	<b>1.920</b>	1.461	1.450	1.821	1.388
Wikis	<b>1.560</b>	1.307	1.350	1.428	1.333
Podcasting	1.640	1.615	1.350	<b>1.857</b>	1.277
RSS Feeds	1.480	1.423	1.400	<b>1.642</b>	1.222
Average mean	<b>2.681</b>	2.219	2.004	2.341	1.939
Note: The incremental scale used ranged from 1 to 5 with 1 being novice, 3 being average, and 5 being expert					
Key: <25=Younger than 25 years old, 25>30=25 or older but younger than 30, 30>35=30 or older but younger than 35, 35>40=35 or older but younger than 40, 40+=40 years or older					

### **4.8.3 By Length of Experience as Journalist**

Data analysis showed that although no significant differences were found between the groups, the least experienced journalists, with less than one year of experience, were most skilled, in comparison to other groups, in using 15 out of the 21 applications listed. The average mean showed that the least experienced journalists were in general more skilled than others in using information technology applications. Further, the most experienced journalists, with 16 or more years of experience, were the least skilled in using information technology applications. Table 72 provides more information.

**Table 72 Skill-level of journalists by experience as journalists**

Application	Skill-Level (mean)					
	>1	1>4	4>8	8>12	12>16	16+
WWW	<b>4.200</b>	3.703	3.545	3.304	2.764	3.166
E-mail	<b>4.200</b>	3.703	3.818	3.173	2.705	3.333
Word Processing	3.400	3.185	<b>3.590</b>	2.521	2.411	2.916
Operating Systems	<b>3.733</b>	3.222	3.409	2.478	2.823	3.000
Audio/Video Software	<b>3.600</b>	2.481	2.727	2.260	2.294	1.916
Communication	<b>2.800</b>	2.185	2.500	2.260	2.588	1.916
Spreadsheets	<b>2.733</b>	2.333	2.727	1.739	2.352	1.916
Databases	<b>2.666</b>	2.111	2.454	1.739	2.235	1.666
Language Tools	<b>3.200</b>	2.185	1.909	2.087	1.529	1.500
Alerts Software	<b>2.533</b>	1.925	2.363	2.130	1.764	1.666
Readers	<b>2.866</b>	2.444	2.636	2.000	2.117	2.250
Presentation Software	<b>2.933</b>	2.259	2.272	1.695	1.823	1.333
Web Browsers	2.466	<b>2.666</b>	2.590	2.391	2.235	2.000
Anti-Virus Software	<b>2.666</b>	2.296	2.409	1.956	1.941	1.666
Blogs	<b>2.266</b>	2.074	2.409	1.782	1.705	1.250
File Transfer Protocol	1.866	<b>2.111</b>	2.000	1.869	1.882	1.416
Telnet	1.933	1.888	1.863	<b>2.087</b>	2.000	1.333
Web Design Software	2.066	1.666	1.636	1.391	1.705	1.333
Wikis	<b>1.666</b>	1.407	1.454	1.391	1.294	1.166
Podcasting	1.733	1.518	1.636	1.695	1.235	<b>1.750</b>
RSS Feeds	1.533	1.518	<b>1.590</b>	1.434	1.294	1.250
Average mean	<b>2.717</b>	2.328	2.454	2.066	2.033	1.892
Note: The incremental scale used ranged from 1 to 5 with 1 being not important, 3 for average, and 5 for very important.						
Key: >1= Less than 1 year, 1>4= 1 or more but less than 4, 4>8= 4 or more but less than 8, 8>12= 8 or more but less than 12, 12>16= 12 or more but less than 16, 16+= 16 years or more						

#### **4.8.4 By Internet Experience**

The data analysis showed that as experience in using the Internet increased, so did the skill-level of the individual. However, that increase in skills peaked after six to nine years of experience, and started to decrease. Also, according to the average mean for all applications, the most skilled journalists were ones who had between six to nine years of experience in using the Internet. The least skilled were ones who had less than one year of experience in using the Internet. Table 73 provides more information.

**Table 73 Skill-level of journalists by length of experience in using Internet**

Application	Skill-Level (mean)				
	>3	3>6	6>9	9>12	12+
WWW	2.857	3.766	<b>4.187</b>	3.611	3.400
E-mail	2.714	3.833	<b>4.500</b>	3.500	3.400
Word Processing	2.285	3.200	<b>3.718</b>	3.333	3.000
Operating Systems	2.523	3.266	<b>3.750</b>	3.388	2.600
Audio/Video Software	1.571	2.566	<b>3.500</b>	2.611	2.800
Communication	1.904	2.433	<b>2.906</b>	2.555	2.000
Spreadsheets	1.904	2.300	2.625	<b>2.777</b>	2.600
Databases	1.666	2.233	<b>2.468</b>	2.444	2.000
Language Tools	1.619	1.866	<b>2.718</b>	2.166	2.000
Alerts Software	1.476	2.100	2.312	2.555	<b>3.000</b>
Readers	1.714	2.466	<b>3.031</b>	2.500	2.400
Presentation Software	1.619	2.000	<b>2.562</b>	2.444	2.000
Web Browsers	2.047	2.666	<b>2.750</b>	2.722	2.600
Anti-Virus Software	1.619	2.333	<b>2.718</b>	2.222	1.800
Blogs	1.523	1.933	<b>2.375</b>	2.277	1.400
File Transfer Protocol	1.523	<b>2.166</b>	2.125	2.000	1.200
Telnet	1.523	<b>2.166</b>	2.156	1.888	2.000
Web Design Software	1.428	1.600	<b>1.906</b>	1.666	1.200
Wikis	1.238	<b>1.533</b>	1.437	1.333	1.000
Podcasting	1.476	1.466	<b>1.718</b>	1.666	1.400
RSS Feeds	1.381	1.500	<b>1.531</b>	1.388	1.000
Average mean	1.791	2.352	<b>2.714</b>	2.431	2.133
Note: The incremental scale used ranged from 1 to 5 with 1 being novice, 3 being average, and 5 being expert					
Key: >3= Less than 3 years, 3>6= 3 or more but less than 6, 6>9= 6 or more but less than 9, 9>12= 9 or more but less than 12, 12+= 12 years or more					

#### 4.8.5 By E-mail Provided

Data analysis by whether a respondent provided their E-mail for a follow-up E-mail interview or not was conducted using an Independent Samples T-Test. Results showed that respondents who provided their E-mail were generally more skilled in using more of the applications listed than respondents who did not. Also, the results showed that significant differences existed for 10 out of the 21 applications between respondents who provided their E-mails and those who did not. The average mean for all applications supports previous findings, and showed that journalists who provided their E-mails were more skilled in using the applications overall than ones who did not. Table 74 provides more information, with significant differences in means in bold.

**Table 74 Skill-level of journalists by E-mail provided or not**

Application	Skill-Level Mean		Sig.
	E-mail Provided	E-mail Not Provided	
<b>E-mail</b>	<b>4.117</b>	<b>2.673</b>	<b>&lt;.001</b>
<b>WWW</b>	<b>4.000</b>	<b>2.755</b>	<b>&lt;.001</b>
<b>Word Processing</b>	<b>3.397</b>	<b>2.510</b>	<b>.002</b>
<b>Operating Systems</b>	<b>3.382</b>	<b>2.714</b>	<b>.015</b>
<b>Audio/Video Software</b>	<b>3.044</b>	<b>1.877</b>	<b>&lt;.001</b>
<b>Readers</b>	<b>2.720</b>	<b>1.938</b>	<b>.005</b>
<b>Web Browsers</b>	<b>2.705</b>	<b>2.102</b>	<b>.024</b>
Communication	2.514	2.163	.213
Spreadsheets	2.382	2.224	.537
<b>Language Tools</b>	<b>2.382</b>	<b>1.653</b>	<b>.004</b>
Anti-Virus Software	2.382	1.918	.064
<b>Presentation Software</b>	<b>2.352</b>	<b>1.734</b>	<b>.020</b>
Alerts Software	2.294	1.816	.065
Databases	2.205	2.040	.513
<b>Blogs</b>	<b>2.205</b>	<b>1.612</b>	<b>.015</b>
Telnet	2.000	1.775	.307
File Transfer Protocol	1.985	1.775	.353
Podcasting	1.705	1.408	.085
Web Design Software	1.647	1.612	.858
RSS Feeds	1.441	1.469	.852
Wikis	1.426	1.367	.699
Average mean	<b>2.490</b>	1.959	

Note: The incremental scale used ranged from 1 to 5 with 1 being novice, 3 being average, and 5 being expert

#### 4.8.6 By Languages Known

The number of languages known affected the skill-level for nine applications. In nine of the 11 instances of significance difference, respondents who knew three languages, or more, differed from respondents who knew one language only. The results showed that multi-lingual respondents were more skilled in using the applications listed than ones who knew only one language.

Further, journalists who knew three languages or more were most skilled in using 18 out of the 21 applications. In terms of average mean for all the applications, the average mean increased as the number of languages known increased, with journalists who knew three languages or more being the most skilled on average. Table 75 provides more information, including all the instances where a significant difference existed in bold.

**Table 75 Skill-level of journalists by languages known**

Application	Skill-level (mean)		
	1	2	3+
<b>WWW</b>	2.466	3.457	<b>4.368</b>
<b>E-mail</b>	2.600	3.494	<b>4.315</b>
<b>Word Processing</b>	2.333	2.963	<b>3.842</b>
<b>Operating Systems</b>	2.400	3.060	<b>3.842</b>
<b>Audio/Video Software</b>	1.333	2.506	<b>3.736</b>
Communication	1.866	2.361	<b>2.789</b>
Spreadsheets	1.733	2.301	<b>2.842</b>
Databases	1.733	2.084	<b>2.684</b>
Language Tools	1.466	2.120	<b>2.368</b>
<b>Alerts Software</b>	1.600	2.036	<b>2.736</b>
<b>Readers</b>	1.533	2.385	<b>3.105</b>
Presentation Software	1.333	2.168	<b>2.368</b>
<b>Web Browsers</b>	1.600	2.469	<b>3.052</b>
<b>Anti-Virus Software</b>	1.466	2.204	<b>2.684</b>
Blogs	1.266	2.024	<b>2.210</b>
File Transfer Protocol	1.266	1.975	<b>2.052</b>
Telnet	1.400	<b>2.012</b>	1.842
Web Design Software	1.266	<b>1.686</b>	1.684
Wikis	1.066	1.445	<b>1.473</b>
Podcasting	1.133	<b>1.662</b>	1.578
RSS Feeds	1.200	<b>1.518</b>	1.364
Average mean	1.622	2.282	<b>2.711</b>
Note: The incremental scale used ranged from 1 to 5 with 1 being novice, 3 being average, and 5 being expert			
Key: 1= One language known, 2= Two language known, 3+= Three or more languages known			

#### **4.8.7 By Primary Field of Study**

Data analysis using one-way ANOVA revealed that the groups for primary field of study differed for five applications. A Tukey Post Hoc test revealed nine instances where a significant difference was present. For eight of the nine instances, Computer Science/Information Technology majors were present. Respondents who majored in Computer Science/Information Technology were significantly more skilled in using the five applications mentioned.

Also, data showed that computer science/information technology majors were most skilled in using 20 out of the 21 applications listed. In terms of average means of all the applications by major, computer science/information technology majors were most skilled, and above average in skill-level with an average mean of 3.2460. All other majors were below average in terms of average mean, with law/humanities/social sciences majors being the least skilled. Table 76 reflects the significant differences in means for applications in bold.

**Table 76 Skill-level of journalists by primary field of study**

Application	Skill-level (mean)						
	JMC	LHSS	EAL	BUS	AE	CSIT	ASE
WWW	3.750	3.619	3.882	2.880	2.937	<b>4.500</b>	4.076
E-mail	3.875	3.714	3.823	2.700	2.875	<b>4.666</b>	4.153
Word Processing	3.208	3.142	3.176	2.600	2.500	<b>4.500</b>	3.384
<b>Operating Systems</b>	3.375	2.904	3.470	2.700	2.625	<b>4.666</b>	3.615
Audio/Video Software	2.333	2.523	3.176	2.300	2.125	<b>3.500</b>	3.307
Communication	2.416	2.285	2.764	2.200	2.125	<b>4.000</b>	2.384
<b>Spreadsheets</b>	2.250	2.047	2.588	2.200	2.062	<b>4.166</b>	2.692
<b>Databases</b>	2.125	1.761	2.352	2.300	1.687	<b>4.000</b>	2.461
Language Tools	2.083	1.904	2.411	2.200	1.687	<b>3.166</b>	2.615
Alerts Software	2.083	2.000	2.529	1.900	2.125	<b>3.000</b>	2.000
Readers	2.208	2.047	2.941	2.400	2.062	<b>3.000</b>	3.384
Presentation Software	2.083	1.523	2.470	2.400	2.000	<b>3.166</b>	2.615
Web Browsers	2.666	2.095	3.000	2.200	2.312	<b>3.333</b>	2.769
<b>Anti-Virus Software</b>	1.833	1.761	<b>3.058</b>	2.200	1.937	2.833	2.923
Blogs	2.083	1.714	2.470	1.600	1.750	<b>3.000</b>	2.000
File Transfer Protocol	1.833	1.476	2.176	2.000	2.000	<b>2.833</b>	2.153
<b>Telnet</b>	1.833	1.523	2.176	2.100	1.812	<b>3.333</b>	2.076
Web Design Software	1.583	1.190	1.882	1.800	1.812	<b>2.166</b>	2.000
Wikis	1.146	1.095	1.529	1.600	1.500	<b>1.666</b>	1.615
Podcasting	1.833	1.333	1.470	1.500	1.562	<b>2.166</b>	1.846
RSS Feeds	1.458	1.095	1.588	1.700	1.625	<b>2.166</b>	1.461
Average mean	2.181	2.036	2.616	2.165	2.053	<b>3.246</b>	2.941
Note: The incremental scale used ranged from 1 to 5 with 1 being novice, 3 being average, and 5 being expert							
Key: JMC= Journalism & Mass Communications, LHSS=Law/Humanities/Social Sciences, EAL=English/Arabic Literature, BUS=Business, AE=Arts/Education, CSIT=Computer Science/Information Technology, ASE=Applied Science/Engineering							

#### 4.8.8 By Other Variables

Analyzing the data by citizenship, level of education, journalistic beat, and the location of the educational institution yielded no significant differences between the groups.

#### 4.8.9 Use of Information Technology Devices

Respondents were asked to provide information about their use of a list of 17 information technology devices. Three options were provided for each device including use, don't use and don't intend to use, and don't use but intend to do so in future.

The 17 devices provided for examination will be divided into two groups for purposes of analysis- traditional/conventional devices, and recent devices. Table 77 reflects the division of the devices. 1990 was chosen as the period that divides traditional from recent devices. That date was chosen since it was during that period that the Internet started to gain popularity and became available to consumers in the US.

**Table 77 Traditional and recent information technology devices**

Traditional/Conventional	Year	Recent	Year
Regular film camera	1925	Personal Digital Assistant (PDA)	1992
Pager	1958	MP3 Players (iPod shuffle™)	1998
Audio Recorders	1970s	Portable Memory Devices	1998
Desktop Computer	1975	Handheld Translator	1990s
Printers	1976	Advanced Mobile (Bluetooth™)	2000s
Portable Computer (Laptop)	1981	Multi-Use devices (iPod™)	2001
Basic Mobile Telephone	1983	Internet Telephone (Vonage™)	2004
Video Camera	1983		
Scanners	1985		
Digital Camera	1988		

The data was analyzed using counts to identify the nature of use. It was found that a basic mobile telephone was the most widely used device (count=111), followed by an advanced mobile telephone (count=89) and audio recorders (count=74). The least used devices were found to be multi-use devices (count=21), pagers (count=18), and personal digital assistants (count=13).

Journalists are more conventional in their use of information technology devices, where the more recent advancements received little usage (portable memory devices, Internet telephone, MP3 players, etc.). In terms of future use, portable memory devices, handheld translators, and multi-use devices are the most likely to be used by journalists in future. However, it is unlikely for journalists to adopt certain information technology devices such as Internet telephone, MP3 Players, and personal digital assistants. Regular film cameras are outdated and results showed that journalists are less likely to use them and do not intend to do so in future. Table 78 provides more in-depth information.

**Table 78 Use of information technology devices by population**

Device	Count			
	Year	Use	Don't use & no intention to use	Could use in future
Regular film camera	1925	48	<b>52</b>	17
Pager	1958	18	<b>77</b>	22
Audio Recorders	1970s	<b>74</b>	19	24
Desktop Computer	1975	<b>59</b>	24	34
Printers	1976	<b>65</b>	32	20
Portable Computer (Laptop)	1981	<b>54</b>	19	44
Basic Mobile Telephone	1983	<b>111</b>	3	3
Video Camera	1983	<b>47</b>	46	24
Scanners	1985	<b>54</b>	31	32
Digital Camera	1988	<b>64</b>	31	22
Personal Digital Assistant (PDA)	1992	13	<b>68</b>	36
MP3 Players (iPod shuffle™)	1998	30	<b>45</b>	42
Portable Memory Devices	1998	41	32	<b>44</b>
Handheld Translator	1990s	29	42	<b>46</b>
Advanced Mobile (Bluetooth™)	2000s	<b>89</b>	12	16
Multi-Use devices (iPod™)	2001	21	43	<b>53</b>
Internet Telephone (Vonage™)	2004	32	<b>43</b>	42

In terms of device commercial-production dates, data analysis showed that journalists used older devices more than newer ones. Counting devices produced after 1990 as recent technology devices and ones earlier than 1990 as traditional, or conventional, devices, data showed that journalists were more likely to be using traditional devices than recent ones.

Advanced mobile telephone is the only device that is regarded as recent and is used by more than 75 percent of journalists. All other six recent devices are used by less than half of the journalists responding, with personal digital assistants being the least used. As for the 10

traditional devices, half of them are used by at least 50 percent of the journalists, with pagers being the least used devices. If mobile telephones were discounted, audio recorders would be the most popular of the traditional devices, while portable memory devices would be the most popular of the recent devices.

#### **4.8.10 By Gender**

Data analysis revealed that females used information technology devices more than males. For 12 of the 17 devices provided, more females indicated that they used them than males. Data analysis according to each device's commercial production date and use by gender showed that females were bigger users of traditional devices (produced before 1990), while males were bigger users of recent technologies (produced after 1990). The most popular traditional device was a basic mobile telephone for both females and males. Further, discounting that device showed that audio recorders were the most popular traditional devices for females and males alike.

In terms of recent devices (produced after 1990), analysis showed that males used four out of the seven devices more than females. The most popular recent device was an advanced mobile telephone for both males and females. Discounting advanced mobile telephone showed that portable memory devices were the most popular recent device for both males and females. Table 79 provides more information.

**Table 79 Use of information technology devices according gender**

Device (oldest first)	Year	Use (%)	
		Females	Males
Regular film camera	1925	39.4	<b>41.7</b>
Pager	1958	<b>18.2</b>	14.3
Audio Recorders	1970s	<b>78.8</b>	57.1
Desktop Computer	1975	<b>57.6</b>	47.6
Printers	1976	<b>71.0</b>	51.2
Portable Computer (Laptop)	1981	<b>57.6</b>	41.7
Basic Mobile Telephone	1983	<b>100</b>	92.9
Video Camera	1983	<b>48.5</b>	36.9
Scanners	1985	<b>48.5</b>	45.2
Digital Camera	1988	<b>69.7</b>	48.8
Personal Digital Assistant	1992	9.1	<b>11.9</b>
MP3 Players (iPod shuffle™)	1998	21.2	<b>27.4</b>
Portable Memory Devices	1998	<b>42.4</b>	32.1
Handheld Translator	1990s	<b>39.4</b>	19.0
Advanced Mobile (Bluetooth™)	2000s	72.7	<b>77.4</b>
Multi-Use devices (iPod™)	2001	<b>21.2</b>	16.7
Internet Telephone (Vonage™)	2004	24.2	<b>28.6</b>

As for future use of information technology devices, males indicated a bigger willingness to do so than females for 11 of the 17 applications provided. Of the 11 devices, 10 are labeled as traditional devices. Females were more likely to start using recent devices for five out of the seven devices. The device that had the highest chance of being used by males in future was a handheld translator, while females were most likely to start using MP3 players. Both devices mentioned for males and females are regarded as recent technology devices.

In terms of least likeliness of use, and after discounting mobile telephones, males showed that they are least likely to start using regular film cameras and printers. Females were least

likely to start using regular film cameras and audio recorders. Of the recent devices, males were least likely to start using personal digital assistants, while females were least likely to start using Internet telephones. Table 80 provides more information.

**Table 80 Future use of information technology devices according to gender**

Device	Year	Future Use (%)	
		Females	Males
Regular film camera	1925	6.1	<b>17.9</b>
Pager	1958	9.1	<b>22.6</b>
Audio Recorders	1970s	6.1	<b>26.2</b>
Desktop Computer	1975	18.2	<b>33.3</b>
Printers	1976	15.2	<b>17.9</b>
Portable Computer (Laptop)	1981	36.4	<b>38.1</b>
Basic Mobile Telephone	1983	0	<b>3.6</b>
Video Camera	1983	12.1	<b>23.8</b>
Scanners	1985	<b>36.4</b>	23.8
Digital Camera	1988	9.1	<b>22.6</b>
Personal Digital Assistant	1992	<b>39.4</b>	27.4
MP3 Players (iPod shuffle™)	1998	<b>54.5</b>	28.6
Portable Memory Devices	1998	<b>39.4</b>	36.9
Handheld Translator	1990s	36.4	<b>40.5</b>
Advanced Mobile (Bluetooth™)	2000s	<b>18.2</b>	11.9
Multi-Use devices (iPod™)	2001	<b>51.5</b>	42.9
Internet Telephone (Vonage™)	2004	30.3	<b>38.1</b>

As for devices that were not used and respondents indicated that they will not start using them in future, males were more negative than females for 12 of the 17 applications provided. Although males were more willing to start using information technology devices than females in future, a large percentage of males indicated the opposite: they do not intend to start using information technology devices. Information technology devices that a high percentage of males do not use and do not intend to do so in future include personal digital assistants, MP3 players, handheld translators, and multi-use devices. As for females, the highest percentage indicated that they do not use, and do not intend to do so in future, regular film cameras, personal digital assistants, and pagers.

In terms of traditional and recent devices, males were less likely to start using both traditional and recent devices, if they do not use them already. Females were more likely to use both traditional and recent devices, although data showed that females indicated less willingness to use, or start using, personal digital assistants and Internet telephones. Table 81 provides more information.

**Table 81 No use and no intention of using information technology devices by gender**

Device (oldest first)	<b>No Use &amp; No Intention to Use (%)</b>	
	Females	Males
Regular film camera	<b>54.5</b>	40.5
Pager	<b>72.7</b>	63.1
Audio Recorders	15.2	<b>16.7</b>
Desktop Computer	<b>24.2</b>	19.0
Printers	18.2	<b>31.0</b>
Portable Computer (Laptop)	6.1	<b>20.2</b>
Basic Mobile Telephone	0	<b>3.6</b>
Video Camera	<b>39.4</b>	39.3
Scanners	15.2	<b>31.0</b>
Digital Camera	21.2	<b>28.6</b>
Personal Digital Assistant (PDA)	51.5	<b>60.7</b>
MP3 Players (iPod shuffle™)	24.2	<b>44.0</b>
Portable Memory Devices	18.2	<b>31.0</b>
Handheld Translator	24.2	<b>40.5</b>
Advanced Mobile (Bluetooth™)	9.1	<b>10.7</b>
Multi-Use devices (iPod™)	27.3	<b>40.5</b>
Internet Telephone (Vonage™)	<b>45.5</b>	33.3

#### **4.8.11 By Age**

Data analysis by age categories revealed that the youngest respondents, in the category Younger than 25, were the biggest users of eight out of the 17 devices provided. The respondents in the last category, 40 years or older, were the biggest users for five out of the 17 devices provided.

Further, the analysis showed that respondents in the youngest category, Younger than 25, were the biggest users of traditional devices for six of the 10 devices, followed by the oldest age category, 40 or older, who were the biggest users for four out of the 10 traditional devices.

As for recent technology devices, the data did not reveal a clear trend. However, respondents in the age category 35 or older but less than 40 were the biggest users of three out of the seven recent devices. Table 82 provides more information.

**Table 82 Use of IT devices according to age category**

Device (oldest first)	Use (%)				
	<25	25>30	30>35	35>40	40+
Regular film camera	36	42.3	<b>55</b>	39.3	33.3
Pager	16	11.5	5	17.9	<b>27.8</b>
Audio Recorders	<b>84</b>	57.7	45	67.9	55.6
Desktop Computer	52	38.5	50	46.4	<b>72.2</b>
Printers	<b>72</b>	42.3	55	57.1	50
Portable Computer (Laptop)	<b>72</b>	30.8	45	35.7	50
Basic Mobile Telephone	<b>100</b>	96.2	90	89.3	<b>100</b>
Video Camera	48	38.5	30	35.7	<b>50</b>
Scanners	<b>72</b>	30.8	55	39.3	33.3
Digital Camera	<b>68</b>	57.7	45	42.9	61.1
Personal Digital Assistant (PDA)	4	7.7	5	<b>25</b>	11.1
MP3 Players (iPod shuffle™)	24	23.1	30	<b>28.6</b>	22.2
Portable Memory Devices	44	34.6	20	32.1	<b>44.4</b>
Handheld Translator	<b>48</b>	15.4	15	21.4	22.2
Advanced Mobile (Bluetooth™)	80	76.9	<b>90</b>	75	55.6
Multi-Use devices (iPod™)	<b>32</b>	11.5	10	17.9	16.7
Internet Telephone (Vonage™)	20	30.8	30	<b>32.1</b>	22.2
Key: <25=Younger than 25 years old, 25>30=25 or older but younger than 30, 30>35=30 or older but younger than 35, 35>40=35 or older but younger than 40, 40+=40 years or older					

#### 4.8.12 By Length of Experience as Journalist

Data analysis according to the length of experience as a journalist revealed that the least experienced journalists were the biggest users of 10 out of the 17 devices provided. The most experienced journalists, in the 16 years or more age-category, were the biggest users for four out of the 17 devices provided.

The least experienced journalists, with less than one year of experience, were the biggest users of seven out of the 10 traditional devices, and three out of the seven recent technology devices. The most experienced journalists were the biggest users of MP3 players from all of the seven recent technology devices. Table 83 provides more information.

**Table 83 Use of IT devices according to length of experience as a journalist**

Device (oldest first)	Use (%)					
	>1	1>4	4>8	8>12	12>16	16+
Regular film camera	<b>53.3</b>	25.9	50	47.8	52.9	16.7
Pager	<b>20</b>	18.5	13.6	8.7	17.6	16.7
Audio Recorders	73.3	55.6	59.1	69.6	58.8	<b>75</b>
Desktop Computer	46.7	44.4	50	34.8	52.9	<b>91.7</b>
Printers	<b>73.3</b>	51.9	54.5	47.8	47.1	66.7
Portable Computer (Laptop)	<b>66.7</b>	48.1	45.5	34.8	35.3	58.3
Basic Mobile Telephone	<b>100</b>	96.3	90.9	91.3	94.1	<b>100</b>
Video Camera	<b>53.3</b>	33.3	40.9	30.4	52.9	41.7
Scanners	<b>80</b>	51.9	45.5	30.4	35.3	33.3
Digital Camera	60	51.9	<b>68.2</b>	39.1	58.8	58.3
Personal Digital Assistant (PDA)	0	18.5	4.5	8.7	<b>23.5</b>	8.3
MP3 Players (iPod shuffle™)	40	25.9	18.2	21.7	11.8	<b>41.7</b>
Portable Memory Devices	<b>60</b>	25.9	40.9	13	35.3	50
Handheld Translator	<b>66.7</b>	22.2	4.5	13	23.5	33.3
Advanced Mobile (Bluetooth™)	80	85.2	72.7	<b>87</b>	70.6	50
Multi-Use devices (iPod™)	<b>33.3</b>	14.8	9.1	17.4	17.6	16.7
Internet Telephone (Vonage™)	20	29.6	22.7	<b>34.8</b>	29.4	16.7
Key: >1= Less than 1 year, 1>4= 1 or more but less than 4, 4>8= 4 or more but less than 8, 8>12= 8 or more but less than 12, 12>16= 12 or more but less than 16, 16+= 16 years or more						

### 4.8.13 By Citizenship

Data analysis by citizenship showed that each citizen category was the biggest user of six out of the 17 applications provided except for citizens of the Al-Sham countries, who were the biggest users of one device, MP3 players.

In terms of traditional and recent devices, citizens of Egypt were the biggest users of five of the 10 traditional devices, followed by citizens of other countries, such as the US, Iraq, and the Philippines, who were the biggest users for four of the 10 devices. Digital cameras, basic mobile telephones, audio recorders, and desktop computers were the leading devices in terms of use. As for recent devices, Kuwaiti citizens were the biggest users of three out of the seven devices, followed by citizens from other countries. Table 84 provides more information.

**Table 84 Use of IT devices according to citizenship**

Device (oldest first)	Use (%)			
	Kuwait	Egypt	Al-Sham	Other
Regular film camera	33.8	<b>55.6</b>	50	33.3
Pager	<b>18.5</b>	16.7	10.7	0
Audio Recorders	61.5	<b>66.7</b>	64.3	<b>66.7</b>
Desktop Computer	40	<b>66.7</b>	60.7	<b>66.7</b>
Printers	53.8	61.1	53.6	<b>66.7</b>
Portable Computer (Laptop)	<b>52.3</b>	27.8	42.9	50
Basic Mobile Telephone	96.9	<b>100</b>	92.9	66.7
Video Camera	33.8	<b>61.1</b>	39.3	50
Scanners	<b>49.2</b>	44.4	46.4	16.7
Digital Camera	47.7	55.6	60.7	<b>100</b>
Personal Digital Assistant (PDA)	10.8	<b>16.7</b>	10.7	0
MP3 Players (iPod shuffle™)	24.6	27.8	<b>28.6</b>	16.7
Portable Memory Devices	33.8	33.3	35.7	<b>50</b>
Handheld Translator	<b>27.7</b>	22.2	25	0
Advanced Mobile (Bluetooth™)	<b>78.5</b>	77.8	71.4	66.7
Multi-Use devices (iPod™)	<b>23.1</b>	22.2	3.6	16.7
Internet Telephone (Vonage™)	24.6	27.8	32.1	<b>33.3</b>
Key: Kuwait=Kuwait, Egypt=Egypt, Al-Sham=Lebanon/Syria/Palestine/Jordan, Other=USA, Czech Republic, Iraq, and the Philippines				

#### **4.8.14 By Level of Education**

Diploma-degree holders were the biggest users of seven out of the 17 devices provided, followed by Bachelor's and Master's degree holders who were the biggest users for six devices each. High school graduates or lower were not the biggest users of any device.

In terms of traditional devices, diploma degree holders were the biggest users for five out of the 10 traditional devices, followed by Master's or higher, Bachelor's and high-school or lower. As for recent devices, Master's degree holders or higher were the biggest users for three out of the seven devices, followed by Bachelor's and diploma degree holders who were the biggest users for two devices each. High-school graduates or lower were not the biggest users for any of the recent devices.

Further, analysis showed that Bachelor's degree holders, or higher, were the biggest users for 10 out of the 17 devices, including five out of the 10 traditional devices, and four out of the seven recent devices. Table 85 provides more information

**Table 85 Use of IT devices according to level of education**

Device (oldest first)	Use (%)			
	High School or lower	Diploma	Bachelor's	Master's or higher
Regular film camera	26.1	33.3	<b>46.9</b>	45.5
Pager	4.3	<b>27.8</b>	15.6	18.2
Audio Recorders	69.6	<b>77.8</b>	60.9	45.5
Desktop Computer	43.5	44.4	<b>54.7</b>	54.5
Printers	56.5	55.6	54.7	<b>63.6</b>
Portable Computer (Laptop)	47.8	<b>72.2</b>	40.6	36.4
Basic Mobile Telephone	87	94.4	96.9	<b>100</b>
Video Camera	34.8	<b>44.4</b>	42.2	36.4
Scanners	52.2	38.9	42.2	<b>63.6</b>
Digital Camera	52.2	<b>72.2</b>	53.1	45.5
Personal Digital Assistant (PDA)	4.3	5.6	<b>15.6</b>	9.1
MP3 Players (iPod shuffle™)	17.4	16.7	23.4	<b>63.6</b>
Portable Memory Devices	30.4	22.2	<b>40.6</b>	36.4
Handheld Translator	30.4	<b>33.3</b>	20.3	27.3
Advanced Mobile (Bluetooth™)	82.6	<b>88.9</b>	70.3	72.7
Multi-Use devices (iPod™)	21.7	16.7	15.6	<b>27.3</b>
Internet Telephone (Vonage™)	17.4	11.1	29.7	<b>54.5</b>

#### **4.8.15 By Primary Field of Study**

Data analysis showed that Computer Science/Information Technology majors were the biggest users of six out of the 17 devices provided, followed by Business and English/Arabic Literature majors, being the largest groups for six devices each.

As for traditional devices, computer science/information technology majors were the biggest users for five out of the 10 devices. Arts and education majors were not the biggest users

for any of the traditional devices. In terms of recent devices, the data did not reveal a clear pattern, with English/Arabic Literature and Business majors being the biggest users of two devices each.

Further, the data showed that journalism majors were the biggest users of audio recorders, video cameras, and handheld translators. Table 86 provides more information.

**Table 86 Use of IT devices according to primary field of study**

Device (oldest first)	Use (%)						
	JMC	LHSS	EAL	BUS	AE	CSIT	ASE
Regular film camera	41.7	28.6	<b>82.4</b>	30	25	33.3	7.7
Pager	8.3	23.8	23.5	<b>50</b>	12.5	0	0
Audio Recorders	<b>83.3</b>	66.7	64.7	80	56.3	<b>83.3</b>	38.5
Desktop Computer	62.5	71.4	58.8	40	18.8	<b>83.3</b>	38.5
Printers	66.7	61.9	64.7	50	37.5	<b>83.3</b>	61.5
Portable Computer (Laptop)	54.2	52.4	35.3	40	25	66.7	<b>69.2</b>
Basic Mobile Telephone	91.7	<b>100</b>	<b>100</b>	<b>100</b>	93.8	<b>100</b>	76.9
Video Camera	<b>58.3</b>	42.9	52.9	30	25	33.3	38.5
Scanners	45.8	33.3	52.9	30	37.5	50	<b>53.8</b>
Digital Camera	70.8	52.4	64.7	40	43.8	<b>100</b>	46.2
Personal Digital Assistant (PDA)	0	19	23.5	<b>30</b>	0	0	15.4
MP3 Players (iPod shuffle™)	16.7	19	<b>35.3</b>	10	6.3	33.3	30.8
Portable Memory Devices	41.7	42.9	47.1	30	12.5	<b>50</b>	30.8
Handheld Translator	<b>37.5</b>	14.3	23.5	30	12.5	50	30.8
Advanced Mobile (Bluetooth™)	66.7	66.7	82.4	70	75	83.3	<b>92.3</b>
Multi-Use devices (iPod™)	12.5	19	23.5	<b>30</b>	18.8	16.7	23.1
Internet Telephone (Vonage™)	16.7	19	<b>35.3</b>	30	25	0	23.1
Key: JMC= Journalism & Mass Communications, LHSS=Law/Humanities/Social Sciences, EAL=English/Arabic Literature, BUS=Business, AE=Arts/Education, CSIT=Computer Science/Information Technology, ASE=Applied Science/Engineering							

#### **4.8.16 By Number of Languages Known**

Journalists who knew three languages or more were the biggest users of 12 out of the 17 devices provided, followed by journalists who knew one language (four devices), and those who knew only one language (one device).

Further, data analysis showed that journalists who knew three languages were the biggest users for seven out of the 10 traditional devices followed by one who knew only one language (three devices). Journalists who knew two languages were not the biggest users for any of the traditional devices. As for recent information technology devices, journalists who knew three languages or more were the biggest users for five out of the seven devices, followed by one and two languages known, who were the biggest users for one device each.

Printers, digital cameras, and desktop computers were the most used devices by journalists who knew three languages or more. Basic mobile telephones, audio recorders, and advanced mobile telephones were the most popular devices for journalists who knew one language. Table 87 provides more information.

**Table 87 Use of IT devices according to number of languages known**

Device (oldest first)	Use (%)		
	1	2	3+
Regular film camera	26.7	38.6	<b>63.2</b>
Pager	<b>33.3</b>	13.3	10.5
Audio Recorders	<b>86.7</b>	55.4	78.9
Desktop Computer	40	45.8	<b>78.9</b>
Printers	40	50.6	<b>89.5</b>
Portable Computer (Laptop)	33.3	47	<b>52.6</b>
Basic Mobile Telephone	<b>100</b>	94	94.7
Video Camera	46.7	33.7	<b>63.2</b>
Scanners	33.3	44.6	<b>63.2</b>
Digital Camera	40	51.8	<b>78.9</b>
Personal Digital Assistant (PDA)	20	9.6	<b>10.5</b>
MP3 Players (iPod shuffle™)	13.3	25.3	<b>36.8</b>
Portable Memory Devices	13.3	32.5	<b>63.2</b>
Handheld Translator	20	25.3	<b>26.3</b>
Advanced Mobile (Bluetooth™)	<b>80</b>	74.7	78.9
Multi-Use devices (iPod™)	20	14.5	<b>31.6</b>
Internet Telephone (Vonage™)	20	<b>28.9</b>	26.3
Key: 1= One language, 2= Two languages, 3+= Three or more languages known			

#### **4.8.17 By Internet Experience**

Journalists with six or more years but less than nine years of experience in using the Internet were the biggest users for eight out of the 17 devices provided. The most experienced journalists in using the Internet, with 12 or more years of experience, were the biggest users for six out of the 17 devices provided.

In terms of traditional and recent devices, journalists with six or more years but less than nine years of experience were the biggest users for five out of the 10 traditional devices. More experienced journalists were the biggest users for four out of the 10 devices, while journalists with three or more years of experience but less than six were the biggest users for one device. The least experienced journalists were not the biggest users for any of the traditional devices. Examining the data further showed that journalists with six or more years of experience were the biggest users for nine out of the 10 devices.

As for recent devices, journalists with six or more years of experience in using the Internet were the biggest users for six out of the seven recent information technology devices. Again, the least experienced journalists with less than three years of experience in using the Internet were not the biggest users for any device. Comprehensively, journalists with six or more years of experience in the Internet were the biggest users for 16 out of the 17 devices. Table 88 provides more information.

**Table 88 Use of IT devices according to length of Internet experience**

Device (oldest first)	Use (%)				
	>3	3>6	6>9	9>12	12+
Regular film camera	33.3	53.3	40.6	50	<b>60</b>
Pager	14.3	<b>16.7</b>	12.5	<b>16.7</b>	0
Audio Recorders	52.4	66.7	<b>75</b>	61.1	40
Desktop Computer	14.3	56.7	62.5	<b>72.2</b>	60
Printers	38.1	56.7	<b>68.8</b>	61.1	60
Portable Computer (Laptop)	23.8	36.7	<b>68.8</b>	66.7	20
Basic Mobile Telephone	90.5	93.3	93.8	<b>100</b>	<b>100</b>
Video Camera	33.3	40	<b>53.1</b>	38.9	20
Scanners	38.1	30	62.5	50	<b>100</b>
Digital Camera	38.1	56.7	<b>71.9</b>	61.1	20
Personal Digital Assistant (PDA)	4.8	<b>16.7</b>	12.5	11.1	0
MP3 Players (iPod shuffle™)	19	20	34.4	22.2	<b>60</b>
Portable Memory Devices	19	26.7	<b>62.5</b>	22.2	60
Handheld Translator	23.8	13.3	<b>40.6</b>	16.7	20
Advanced Mobile (Bluetooth™)	71.4	70	<b>81.3</b>	72.2	80
Multi-Use devices (iPod™)	19	20	18.8	11.1	<b>20</b>
Internet Telephone (Vonage™)	28.6	30	34.4	11.1	<b>60</b>
Key: >3= Less than 3 years, 3>6= 3 or more but less than 6, 6>9= 6 or more but less than 9, 9>12= 9 or more but less than 12, 12+= 12 years or more					

#### **4.8.18 By E-mail Provided**

Journalists who provided their E-mails for the follow-up interview by E-mail were the biggest users of 13 out of the 17 devices provided. For traditional devices, journalists who provided their E-mails were the biggest users for nine out of the 10 devices, with journalists not providing their E-mail being the biggest users of pagers.

As for recent devices journalists who provided their E-mails were the biggest users for four out of the seven devices, with portable memory devices being the most popular. Out of the seven recent devices, journalists who did not provide their E-mails were the biggest users of advanced mobile telephones and Internet telephones. Table 89 provides more information.

**Table 89 Use of IT devices according to E-mail provided**

Device (oldest first)	Use (%)	
	E-mail Yes	E-mail No
Regular film camera	<b>41.2</b>	40.8
Pager	13.2	<b>18.4</b>
Audio Recorders	<b>67.6</b>	57.1
Desktop Computer	<b>58.8</b>	38.8
Printers	<b>64.7</b>	42.9
Portable Computer (Laptop)	<b>55.9</b>	32.7
Basic Mobile Telephone	<b>95.6</b>	93.9
Video Camera	<b>45.6</b>	32.7
Scanners	<b>54.4</b>	34.7
Digital Camera	<b>55.9</b>	53.1
Personal Digital Assistant (PDA)	10.3	<b>12.2</b>
MP3 Players (iPod shuffle™)	<b>32.4</b>	16.3
Portable Memory Devices	<b>42.6</b>	24.5
Handheld Translator	<b>32.4</b>	14.3
Advanced Mobile (Bluetooth™)	72.1	<b>81.6</b>
Multi-Use devices (iPod™)	<b>26.5</b>	6.1
Internet Telephone (Vonage™)	25	<b>30.6</b>

## 4.9 RQ7- COMPARISON OF INFORMATION BEHAVIORS

A number of findings from this study validated ones of a previous study conducted in Kuwait (Mumtaz, Al-Ansari & Abdullah, 2004). This study found that the Internet was important for finding difficult-to-find facts. Similarly, the previous study found that fact-checking and verification were important factors that encouraged the use of the Internet.

Further, the previous study conducted in Kuwait found that the Internet was critically important to journalists, who expressed a high degree of satisfaction towards the medium. This finding was validated by findings from this study that showed Kuwaiti journalists and ones who graduated from institutions in Kuwait were highly dependent on the Internet as a source of information.

In terms of problems faced online, the previous study found time, lack of training, and information overload to be major obstacles. This study found that time was a major obstacle, followed by speed of the Internet connection, and language. Training and information overload were found to be smaller obstacles faced by less than a quarter of the journalists surveyed. This could reflect an improvement in Internet-related behaviors over the last few years as training, education, or even personal experience, assisted journalists in overcoming the training and information overload problems that they encountered initially.

A study conducted in the UK targeting the Internet-related behaviors of journalists showed that journalists used the Internet to access newspaper/magazine sites, official sites, and institutional sites including universities (Nicholas, Williams, Cole & Martin, 2000). In terms of journalists in Kuwait, this study found the Internet was most important to access newspaper sites, search engines, and news services. Institutional and governmental sites were ranked seventh and

eighth in importance by journalists in Kuwait. This could be due to a lack of Kuwaiti, and Arabic, information-based websites that could be useful to journalists. Therefore, it is less likely that journalists in Kuwait would use the Internet to find such information, and could possibly rely on local sources of information.

In terms of E-mail-related behaviors, journalists in the UK indicated that overcoming time differences, convenience and cost were the major attractions of E-mail (Nicholas et al., 2000). Journalists in Kuwait reflected similar preferences, indicating that convenience, file uploading/downloading and overcoming time differences were the three top attractions of E-mail. The cost of using E-mail was ranked lower in Kuwait than in the UK. This could be due to the free-access provided to journalists in Kuwait by their organizations. Also, the cheap cost of Internet access in Kuwait could be a factor in making cost a non-factor for use of E-mail.

As for E-mail problems, journalists in the UK indicated that the lack of face-to-face interaction was the single most worrying problem of E-mail. This problem was not reflected by journalists in Kuwait, as this study found unsolicited messages to be the biggest problem journalist faced when using E-mail. Lack of face-to-face interaction was ranked sixth by journalists in Kuwait. This could be due to a lack of E-mail use to conduct interviews in Kuwait, making face-to-face interaction less of a worry.

The study conducted in the UK found that 15 percent of journalists used listservs, while 28 percent used newsgroups compared to 55.1 percent of Kuwaiti journalists who used listservs and 72.9 percent who used newsgroups. This significant difference could be due to the timing of the two studies, as the UK study was conducted in 2000 while the Kuwait study was conducted in 2006. Internet's popularity has risen significantly and constantly over the years, bringing awareness to the different tools and applications it provides.

Further, studies were conducted in the US to evaluate and examine the behaviors of journalists towards the internet and information technologies (e.g. Garrison, 1999, 2000, 2002; Ketterer, 2003). This review will compare some of the findings of these studies, which used self-administered questionnaires as their primary research instrument, to findings from this study about Kuwait, which also used a questionnaire.

From table 90, it is evident that journalists in Kuwait and the United States behave differently in terms of using information obtained from the Internet. While journalists in Kuwait focus on finding difficult-to-find facts and the latest news to add to a story, journalists in the US focus on adding richness to their stories by adding background information, depth, and context. Background information is ranked last for journalists in Kuwait, while it is ranked first and fourth for journalists in the US. This could reflect a lack of education and poor information seeking behaviors since journalists in Kuwait seem to be looking for information more speedily than their counterparts in the US. This behavior can result in errors and a lack of quality.

Also, journalists in Kuwait use the Internet to find photographs, while their counterparts in the US do not. This could be due to the lack of an institutional database for photographs in Kuwait, or a lack of awareness of the copyright laws that protect photographs, making it easier to obtain and use photographs freely.

**Table 90 Use of Internet information for conducting journalistic tasks**

Rank	Kuwait	US	
	Abdulla, 2006	Garrison, 1999, 2000, 2002	Ketterer, 2003
1	Finding difficult-to-find facts	Add depth, context	Background for story
2	Latest News	Extend government coverage	Documents to cite
3	Documents to cite	Find sources	Background for questions
4	Find photographs	Background information	Latest news for story
5	Fact-checking & verification	Latest news	Statistics
6	Background for story	Finding difficult-to-find facts	Contact sources

In terms of the types of information journalists obtain from the Internet, US journalists focused on government sites and reports, while journalists in Kuwait ranked that type of information eighth out of 19. Again, this could be due to the lack of official Kuwaiti presence online compared to the websites, and information, being disseminated by the many different institutions of the US government. Sites of other newspapers were ranked third and fourth in importance by US journalists, while it was the most important online source of information for journalists in Kuwait. This could be due to the fierce competition and the geographical location of the Kuwaiti newspapers. All seven daily newspapers in Kuwait are located in one block. This adds to the fierce competition for readership and advertisers between the newspapers. Although similar competition does exist in the US, newspapers are more widely dispersed, and news coverage can vary from city to city.

Further, journalists in Kuwait ranked search engines higher than their counterparts in the US, implying their confidence in the medium, and their dependence on it as findings elsewhere in this study indicated. Organizations, reference, and statistics sites were ranked low in importance by journalists in Kuwait compared to ones in the US. Again, competitive practices, geographical location, and the nature of the workplace in Kuwait and the US could affect the importance of the types of information found online. Table 91 provides more information.

**Table 91 Types of information obtained from the Internet**

Rank	Kuwait	US	
	Abdulla, 2006	Garrison, 1999, 2000, 2002	Ketterer, 2003
1	Other newspapers	Government sites	Government reports
2	Search engines	Statistics sites	Reference sites
3	News services	Search engines	Other newspapers
4	Magazine sites	Other newspapers	Search engines
5	Press releases	Organizations	Laws & regulations
6	Scientific sites	Environmental sites	Statistics sites

In terms of importance of information evaluation criteria, it is evident that journalist in Kuwait differ from ones in the US. Table 92 shows the ranking of the different information evaluation criteria for Kuwait and the US. Journalists in Kuwait emphasized the importance of obtaining information promptly, conveniently, and accurately. As for journalists in the US, the authority of the publisher was found to be more important than promptness in obtaining information, which they ranked least important. Further, journalists in the US emphasized the importance of interactivity of the website, such as having a search engine, being indexed, and allowing downloads. Interactivity was ranked least important by journalists in Kuwait. This finding implies that journalists in Kuwait are lacking in internet-related skills and are highly dependent on the medium for information.

Also, table 92 shows that journalists in Kuwait preferred speed in obtaining information over accuracy and authority, while journalists in the US preferred obtaining authoritative and accurate information, even if it takes more time. These preferences by journalists in Kuwait could reflect either a work environment that encourages timeliness over accuracy, or a lack of education and training resulting in a lack of awareness of more effective, and efficient, journalistic behaviors.

**Table 92 Importance of evaluation criteria**

Rank	Kuwait	US
	Abdulla, 2006	Garrison, 1999, 2000, 2002
1	Promptness	Authority
2	Convenience	Accuracy
3	Accuracy	Interactivity
4	Coverage	Convenience
5	Objectivity	Promptness

The number of work-related E-mails sent and received by journalists in Kuwait and the US is nearly the same, with journalists in Kuwait sending and receiving more E-mails. However, the information for journalists in the US is at least four years old, and could be different now. It would be expected that as the Internet penetrated newsrooms across America, and newspapers realized the benefits of using the Internet, the behaviors of journalists in the US would be different across time. Table 93 provides more information.

**Table 93 Work-related E-mails sent and received by mean**

Kuwait		US	
Abdulla, 2006		Garrison, 2002	
E-mails sent	E-mails received	E-mails sent	E-mails received
8.18	17.60	5.45	15.71

As for E-mail worries, journalists in both the US and Kuwait expressed similar opinions. Journalists in the US indicated that unsolicited messages, viruses, and confidentiality are their top three worries about E-mail. Journalists in Kuwait had similar worries, indicating that unsolicited messages, hacking, and viruses, were the issues that worried them the most. Confidentiality was ranked by journalists in Kuwait as the fifth issue that worried them about E-mail, compared to third for journalists in the US. Clearly, unsolicited messages, or SPAM, and viruses worry journalists in general. Confidentiality's higher rank for journalists in the US could be due to their use of E-mail as a tool to conduct interviews, express opinion, and exchange information with colleagues. These actions are less likely to be conducted by journalists in Kuwait, and as a result, confidentiality is not viewed as a major worry.

Overall, journalists in Kuwait reflected areas of strength and weakness when compared to ones in the UK and US. In terms of E-mail, journalists in Kuwait reflected satisfactory behaviors in terms of usage and worries. However, a weakness was reflected for using Internet information to conduct journalistic tasks, the types of information being sought, and information evaluation criteria. These issues require education and practical training to improve the Internet-related behaviors of journalists in Kuwait, and raise their awareness in relation to journalistic practices and norms that would improve the work environment, and the final output of journalists.

#### **4.10 FOLLOW-UP INTERVIEWS BY E-MAIL**

Of the 34 journalist randomly chosen for the follow-up interviews by E-mail, 12 responded within the set time-frame. This could have been due to the timing of the interviews, which was during the holy month of Ramadan. Usually, work hours are decreased during Ramadan while the workload remains the same which creates a hectic work environment. Also, the low response rate could be due to the lack of awareness and interest in participating. None of the previous studies conducted in Kuwait used this method, and therefore, it was a new approach that could have been given less importance by journalists. Despite that lack of awareness and participation, it was necessary to introduce this method in order to develop it and use it more effectively in future studies.

Of the 12 journalists who responded to the follow-up interviews, two responses were unusable and were not included in the analysis. These responses were brief and were not focused

on the topic being examined. As for the other 10 responses, some answers were brief, while others were focused on personal issues rather than the general question being posed. Overall, the researcher used satisfactory and insightful answers for inclusion in this section.

#### **4.10.1 Question 1**

"In your opinion, do you think that the Internet and other information technologies encourage females to pursue careers in journalism or not? Why?"

Journalists were asked for their opinions regarding the Internet in relation to the behaviors of females in pursuing careers in journalism. The goal was to gauge the overall feelings, and possibly uncover new issues for future research. The responses were unanimous in emphasizing the importance of the Internet and information technologies in encouraging females to pursue careers in journalism. Reasons included the Internet's ability to save time and make efforts more efficient, its ability to provide content that is comprehensive regardless of geographical location, and its convenience.

From the responses, it was evident that fieldwork was the biggest barrier females faced as journalists. However, the Internet and information technologies were the major force behind overcoming the barrier of fieldwork, and welcoming females to the journalism sector. This could partly explain why females were more skilled than males in using information technologies including E-mail and the WWW. Some answers to this question were as following:

- Of course the Internet and information technologies assist females in merging with the world of journalism especially since journalism requires a lot of effort and time. Looking at society in Kuwait, females have a lot of responsibilities that require a part of

their time and effort. However, the Internet encourages females to be a part of the world of journalism. Personally, I think the Internet and information technologies are the most important means for communicating with readers and conducting feature stories. Further, Internet and E-mail allow me to pursue my college studies without the need of being physically present at the newspaper.

- Yes because females are not able to work in the field at all times, including traveling to far away places, the Internet eases the potential obstacles of time and distance. Also, the Internet allows females to be more aggressive in looking for information. For example, in a face-to-face interview, a female reporter might be less aggressive in asking questions to a high-ranking male official than when conducting the interview through the Internet. The Internet provides females with access to information that was not accessible before.
- The Internet and information technologies are not the only, or main, reasons behind encouraging females to work as journalists but they are factors amongst many others that assist in conducting daily tasks which enables females to complete these tasks without feeling that they are neglecting other daily tasks in their lives.

All responses viewed the Internet positively in relation to females and pursuing careers in journalism. Respondents indicated that the Internet was one factor of several others that affected females pursuing careers in journalism. Other factors included social norms, workplace practices, and personal responsibilities.

#### 4.10.2 Question 2

"Please describe a situation where the Internet was instrumental in the development of a news story."

This question was asked to collect responses that showed how journalists were using, and potentially, benefiting from the Internet. A high number of respondents described a situation where they could not find a certain fact, and turned to the Internet to find it. Search engines were highly appreciated and were positively mentioned by most respondents. This was similar to the finding of the questionnaire, where search engines were ranked by journalists as the second most important WWW resource after newspaper websites. A number of insightful situations were as following:

- The most important situation was during the parliamentary elections this year (2006). I was supposed to send the results of the vote-count to the newspaper on a continuous basis. However, the fax machine at the polling station where I was located at was broken, and it was very difficult to go to the newspaper to deliver the updates. However, thanks to the Internet, I was able to send the updates. In other situations, sometimes we need reports about some international universities which are difficult to find in libraries in Kuwait. Using the Internet, it is easier to locate such information with the help of search engines. The world of indexing in libraries has become extinct and made easier through the Internet.
- When I first started, it was difficult for me to write about any topic because I was inexperienced. The Internet was my primary assistant that I turned to for help, until I gained more experience with time. I used the Internet for all the tasks that were assigned

to me such as writing or editing a news story, finding story ideas, finding facts, and even conducting research.

- A while back, I was assigned a story that required information about a certain Arab actress that I had little knowledge of. With the help of the Internet, I was able to find a lot of information about her which allowed me to complete the story effectively and in a timely manner.

Clearly, respondents emphasized the importance of the Internet for finding information. However, as previous findings of this study indicated, this high reliance on the Internet could have catastrophic results if the proper evaluation skills were not utilized.

#### **4.10.3 Question 3**

"Do you encourage enhancing the current educational curricula in Kuwait to improve Internet-related behaviors of journalists? Why? And what changes would you recommend?"

The majority of respondents agreed that the current educational curricula in Kuwait were obsolete and required a comprehensive effort to evaluate and update them. Another issue that received high mention by respondents was the issue of theoretical versus practical training. Respondents emphasized the theoretical aspect of curricula in Kuwait, indicating that the practical aspect was neglected and required intervention. Respondents thought that educational curricula were a primary reason behind journalists' lack of skills and knowledge of the Internet and information technologies. Some answers were as following:

- In addition to being a journalist, I am a student majoring in computers and information technology. In my opinion, there is a divide between journalists and information

technologies that requires immediate remedy through enhancing the out-of-date educational curricula. My experience and skills with computers in information technologies did not come from studying because there is a serious functional disorder in the educational curricula especially in the scientific-based majors such as computers. Some universities and schools teach computer science from a theoretical perspective and that is a big mistake as it is useless to teach such things theoretically. From my personal experience, practical training and use is important for learning. I learned what I know about computers, the Internet, and other technologies through means of trial-and-error since I was not taught how to use them at school or even during college. This should not be the case.

- I encourage and support changing educational curricula at both the high-school and university levels. I suggest that curricula include not only theoretical aspects but practical ones such as searching the Internet for information etc., which will positively affect the future of journalism. Educational curricula should be updated to reflect the times we live in where the Internet has become a major force in most aspects of society, and especially in the workplace. Not educating students on how to use the Internet effectively results in graduates who need more learning and training, making them a burden to the organizations that hire them.

Previous findings indicated that knowledge was the third ranked barrier preventing Internet use behind time and training. Answers to this question supplement that finding by shedding light on the weaknesses of educational curricula in Kuwait, and the need to reform them.

#### 4.10.4 Question 4

"What should training seminars and workshops focus on in order to improve Internet-related behaviors of journalists?"

This question sought to gather responses that could raise attention of certain skills that needed attention. Generally, respondents indicated that journalists needed intensive training in using the Internet at all levels with a focus on basic Internet skills. Findings from this study showed that journalists were indeed lacking the basic skills needed to use the Internet and information technologies. Further, some respondents mentioned age as a focus for training, indicating that older journalists were ones who needed the most training. Again, results from this study indicated that older journalists were less skilled than their younger counterparts.

Respondents emphasized the need for training journalists on how to use E-mail, the WWW, operating systems software, and word processing. These are all basic resources that journalists do not have enough skills to use. Further, no respondent indicated the need for training journalists to use databases, which was somewhat surprising. Databases are viewed as important resources for journalists that can provide accurate and authoritative information in a timely manner. Yet, journalists fail to mention it as an important resource that requires training. Findings indicated that journalists were below average in using databases.

Training was the second ranked barrier that prevented Internet. Some responses were as following:

- In my opinion, there has to be a gradual training program for journalists where it first focuses on the basics such as turning on a computer, creating files, using word processing software and learning its basics, and using portable memory devices. After that, the

training program can advance to Internet basics such as using search engines, E-mail, and web browsers. Such a program should be mandatory for all journalists and would be more efficient if they enroll in it when they first join the organization. These skills are important for a journalist, and one who does not possess these skills should be given the means to learn.

- Most journalists need training from the most experienced ones to the beginners so that they can develop their skills. For older, more experienced journalists, these training programs should be mandatory as they are highly ignorant of the Internet which is something embarrassing. As for beginning journalists, training programs or workshops could focus on the dangers of the Internet, and how to effectively use it. Training programs should be basic, moderate, and advanced, so that journalists can benefit according to their skill-level. Further, workshops should be conducted on a continuous basis to teach journalists skills related to new technologies. Workshops should not only focus on skills, but also on issues related to journalists such as new journalist-targeted software, ethics, and work-related issues.
- Training programs should be made brief and focused to allow journalists to enroll and benefit. Current training programs consume a long time, making employers less inclined to encourage journalists to enroll in such programs. Brief, and focused, training would be more effective in encouraging journalists to enroll. For example, a program could target a specific tool such as E-mail. Within one day, or a few hours, a journalist learns about the basics of E-mail in a practical manner. This approach would be most beneficial as journalists can then custom-design their training requirements. Another possible approach is to organize brief workshops at each organization. This makes participation much more

appealing and convenient. In conclusion, the main problem for training and workshops is not the content, but the time-related issues related to enrolling in such programs. Employers should be aware of this, and be more accommodating to the needs of their employees.

#### **4.10.5 Question 5**

"Will creating more 'journalist friendly' systems, or software, improve Internet-related behaviors of journalists? What would these systems consist of? (For example E-mail, browsing, virus protection, etc.)"

The question was asked to seek ideas that could improve Internet-related behaviors of journalists. The respondents indicated that such systems or software would be positive and beneficial to journalists as it would focus their skills on specific tools rather than each journalist using a different tool.

Respondents emphasized the need for protection from hacking and viruses, protection from unsolicited messages (SPAM), and a system that was fast in its operation. Findings from this study showed that unsolicited messages (SPAM), hacking, and viruses were the top ranked E-mail worries/shortcomings respectively. The answers to this question supplemented that finding as journalists indicated that they would prefer systems that protected them from those issues.

Also, respondents emphasized the need for a fast system. This could be partly explained by the slow Internet connections that journalists use now. Findings from this study showed that almost half the respondents choose speed of their Internet connection as an obstacle faced online,

ranking speed as the second obstacle after time. Therefore, it is not surprising that journalists prefer a fast system as it would allow them to use their time more efficiently. Some responses to this question were as following:

- More journalist friendly systems and software will spread electronic awareness since focused systems and software are easier to work with. In my opinion, software has to be developed with high protection from hackers, auto-scanning and saving for attached files for E-mails, in addition to better protection from SPAM.
- Behaviors cannot be taught to journalists and are personal in nature. Although it is not teachable, it distinguishes journalists who are more capable of using such systems and software.
- Journalist friendly systems and software cannot by themselves improve the behaviors of journalists. However, if these systems and programs were presented along with training and education, it could raise the awareness of journalists and affect their Internet-related behaviors positively. New systems and programs targeting journalists should focus on privacy. As privacy is a highly important issue for journalists, it is important that journalists trust the systems and programs that they use to provide them with security for their privacy. E-mail, the WWW, translation capabilities, virus protection, sending and receiving files abilities, and speed are all issues to consider when creating a system or program targeting journalists. A final issue would be access to a vast array of information sources.

## **5.0 DISCUSSION**

The results obtained from the data analysis will be discussed in this section to provide a clear, complete, and meaningful picture of the current situation in Kuwait in relation to Internet-related behaviors of journalists. The discussion will follow the pattern established by the data analysis by discussing each research question in the order that it was analyzed earlier.

### **5.1 INTERNET ACCESS, NATURE, AND BARRIERS**

Although 80 percent of respondents were satisfied with the Internet connection provided by their institutions, the majority of respondents preferred to access the Internet from home followed by work. This preference could be due to the lack of time at work, the speed of the connection at home versus work, and censorship. Also, preferring to access the Internet from home could be attributed to the fact that commercial Internet access is cheap in Kuwait when compared to other countries in the region. Accessing the Internet from home could give users a sense of privacy not available at work or elsewhere. Further, home use of the Internet could be more convenient for respondents, as time, or lack of it, is the major obstacle faced online.

Of the 10 respondents who indicated that they did not use the Internet, more than half reported that time, training, and knowledge were the barriers preventing from using the Internet. 70 percent of the non-users were 30 years of age or older, while 30 percent were younger than

30. Further, 80 percent of the non-users of the Internet were males. Data analysis showed that these findings are in accordance with others that showed females were more skilled, and more adapt at using the Internet than males.

As for the 107 respondents who did use the Internet, 71 percent were males. However, counting the non-users of the Internet showed that more females used the Internet than males. Further, more than 73 percent of the responding females who used the Internet were younger than 30 years old, compared to less than 33 percent of males in that same age category. More than 67 percent of males who indicated that they used the Internet were 30 years or older, compared to less than 26 percent of females. This significant difference could be attributed to the ages of the journalists. More than 54 percent of female journalists were younger than 25 years old, while the largest age category for males was 35 or more but less than 40 with 28.6 percent of the population. Only 8.3 percent of male journalists were younger than 25 years old.

Further, data showed that females were less experienced than males in being journalists, implying that females are recent graduates, and are just starting in the field. This could be an important factor affecting the Internet-related behaviors of females, as recent graduates are likely to have learned in a more information technology friendly environment in comparison to ones who graduated in the early 1990s and before, since the Internet was not as robust and popular as it is nowadays.

### **5.1.1 Barriers**

Of the 10 respondents who indicated that they did not use the Internet, more than half reported that time, training, and knowledge were the barriers preventing them from using the Internet. As for the rest of the respondents, time, speed of connection, and language, were the main obstacles faced online. It is evident that time, or lack of it, plays an important role in the Internet-related behaviors of respondents.

In terms of gender, significant differences occurred for time, information overload, and lack of guidance to sources. Males emphasized the importance of time as an obstacle followed by speed of the Internet connection and language while females emphasized speed of the Internet connection, lack of guidance to sources, and time. This could be attributed to the work processes of males and females. Males are more likely to be in the field covering news stories than females, and therefore, find time, or the lack of it, as a major obstacle. For females, time is not as important as the lack of guidance to sources. This can be explained by the fact that females are generally better skilled than males in using the Internet and its applications, according to results found elsewhere in this study. The difference in skills can imply that females can manage their time better, and therefore, do not view time as a major obstacle online.

Although 80 percent of respondents indicated that they were satisfied with the connections provided to them by their institutions, females expressed more dissatisfaction than males. Again, the Internet-related behaviors of females showed that they are more capable of using the medium, and are more dependent on it for their work. Therefore, it is normal that females emphasize the speed of the connection more than males, as the Internet was viewed as more important to their work.

Quantitative data regarding the length of experience in using the Internet showed that females were more experienced than males, with the minimum length of experience for females being two years. This finding supports previous findings regarding females having better Internet-related behaviors than males. Assuming that 22 years of age is the age at which individuals are expected to graduate from university as Bachelor's degree holders, it can be assumed that a majority of female journalists were enrolled in universities during the period from 1998 to 2001, as their average age was 27 years old for this study. The same calculation for males shows that they were enrolled at a university during the period from 1990 to 1994. In 1990, the Internet was just starting to be available to the public in the US and Kuwait, and was in its beginning stage. Educational institutions were going through a transition period that involved evaluating the new medium, incorporating some uses, acquiring the technology, and changing curricula. As for the period from 1998 to 2001, the average for females, educational institutions had started to embrace and incorporate many facets of the Internet and the technologies associated with it. Curricula were better-designed to teach students about the Internet. Therefore, education could be a major factor affecting the Internet-related behaviors of journalists, with the youngest journalists, both male and female, being more skilled and more embracing of the Internet than their older counterparts.

Further analysis showed that more than 74 percent of female journalists had between three and nine years or experience in using the Internet, compared to 52 percent of males for the same time length. The least experienced journalists with less than 3 years of experience in using the Internet were composed of one female (3.23 percent) and 20 males (26.67 percent). Clearly, females, who were younger than males, were more experienced in using the Internet.

## 5.1.2 Findings

Major findings for this research question included the following:

- Time, or the lack of it, was the major barrier preventing journalists from using the Internet. Also, time was the biggest obstacle facing journalists when online.
  - Time, speed of connection, and language were the top three obstacles facing males online.
  - Speed of connection, lack of guidance to sources and time were the top three obstacles facing females online.
- A large majority of journalists are satisfied with the Internet connection provided by their institutions. However, a majority of journalists preferred to access the Internet from their homes, followed by work, mobile access, and Internet cafes.
- Females were more experienced than males in using the Internet, with a mean of 6.3 years compared to 6.1 years for males.

## 5.2 INTERNET APPLICATIONS USE AND NATURE

It was expected that E-mail and the WWW were the most popular, and most widely used, Internet applications by journalists in Kuwait. Further, results showed that journalists were above average in using only three of the 19 Internet applications listed- the WWW, search engines, and E-mail. Use of more recent applications and technologies such as blogs, and podcasting, was nearly non-existent. This reflects a lack of awareness and skill of the more recent innovations. This is a weakness that needs to be addressed in order to improve Internet-related behaviors.

Analysis for each application by gender showed that females used all the applications listed more than males except for newsgroups and open-source software. Again, this could be due to the difference in ages between females and males, as the majority of females are younger than 25, while males are mostly 30 years or older. This finding was supported by further analysis that showed journalists in the youngest age category, younger than 25 years old, spent more time using E-mail, the WWW, search engines, and messengers in comparison to journalists in the oldest age category, 40 years or older.

In terms of education, results showed that graduates from educational institutions in North America and Europe spent significantly more time than their peers who graduated from an institution in Kuwait or the Middle East. Again, education was a major factor affecting Internet-related behaviors of journalists. It can be assumed that educational institutions in North America were quicker to embrace the Internet and its related technologies than institutions elsewhere, as the Internet's infrastructure was more advanced in North America. This step of embracing the Internet assisted these institutions in enhancing their curricula, training, work-habits, and others, faster than institutions elsewhere in the world.

### **5.2.1 Nature of E-mail**

Females spent significantly more time than males in using E-mail. Due to social values and beliefs, and even politics, males are more likely than females to be assigned tasks that require fieldwork. This implies less time for males to spend using the Internet. It could also indicate that females prefer to communicate using E-mail to break through the social values and beliefs that hinder their work. In terms of other variables, amount of time spent using differed for age, location of educational institution, number of languages known, and E-mail provided for the follow-up interview by E-mail. For age, the youngest age group, younger than 25, spent significantly more time than the oldest age group, 40 years or older. This could be attributed to the embracing of the new technologies by the younger journalists, and their ability to adopt and utilize these technologies faster than their older counterparts. Also, younger journalists were, more likely than not, educated during the 1990s and early 2000s where information technology was gaining significant popularity, and was being adopted by educational institutions around the globe. It is probable that the older journalists completed their education at least 15-20 years ago during an age where information technologies, and the Internet, were not yet popular, or widely adopted.

In terms of location of the educational institution that the journalist graduated from, results showed a significant difference between journalists who graduated from in Kuwait and North America/Europe on one hand, and those who graduated from institutions in the Middle East on the other. Graduates from North America/Europe and Kuwait spent significantly more time than their ones from Middle Eastern institutions. This finding implies that educational institutions in North America/Europe and Kuwait could be more aware of the Internet and the many different information technologies available, and prepare their students accordingly.

As for the number of languages known, results indicated that journalists who knew two or more languages spent more time using E-mail than their counterparts who knew only one language. This is likely due to the fact that journalists who do not know English are less likely to spend a large amount of time using E-mail, as they would probably face difficulties in navigating and utilizing E-mail in an efficient manner. Further, journalists who provided their E-mail address voluntarily for the follow-up interview by E-mail spent significantly more time using E-mail than journalists who did not. Again, this finding is normal as journalists who are more skilled in using E-mail are more likely to have a personal E-mail and spend more time using it than their counterparts who do not own a personal E-mail.

Most journalists indicated that they used E-mail which is an expected finding. On average, a journalist in Kuwait sends eight work-related E-mails a day, and receives nearly 18. In terms of gender, females sent and received more E-mails a day than males. Again, this finding reflects the skill-level and dependency of females on using the Internet in comparison to males.

E-mail attractions included convenience, uploading/downloading abilities, overcoming time differences, and speed. Further, storage capabilities, cost, and indexing and searching, were not as highly favored features of E-mail. This could indicate a lack of awareness of the features of E-mail, and a lack of skills. Storage, indexing, and searching, can be very useful features that can assist journalists in conducting their tasks more efficiently.

In terms of E-mail shortcomings, journalists indicated that unsolicited messages, hacking, and viruses, were the top three issues that worried them. Other worrying issues that were further down in rank included the fate of the message, confidentiality, lack of face-to-face interaction, and time consuming. Again, the results indicate that journalists lack the proper awareness in relations to E-mail.

### **5.2.2 Nature of WWW**

More than 89 percent of the population indicated that they use the World Wide Web (WWW). Females spent significantly more time using the WWW than males. Also, similar to E-mail, the youngest age group spent significantly more time using the WWW than the oldest group. Further, journalists who provided their E-mails spent more time using E-mail than ones who did not provide their E-mails. The results are somewhat similar to the nature of E-mail usage.

In terms of WWW resource importance, journalists found nine of the 19 resources or applications provided to be average or higher in terms of importance. These included sites for newspapers, search engines, news services, magazines, press releases, scientific information, institutions, government, and directories. Again, the results imply a lack of awareness of the resources available through the WWW. Journalists indicated less than average importance for resources such as reference sites, journals, statistical sources, and databases.

When the data was analyzed by gender, it was found that females placed more importance on 17 out of the 19 WWW resources listed. Also, males and females differed significantly for government sites, institutional sites, and search engines. In all three instances, females placed more importance on the resource or application than males. The result reinforces the finding about females spending more time using the Internet and its applications than males. Again, this could be due to the work nature of each gender, age and education, and the effects of social norms and values.

Results of the data analysis of WWW resource importance by primary field of study uncovered nine significant differences between the groups. These differences occurred for reference sites, entertainment/sports, financial/company, government, institutions, odd/obscure information, databases, uploading/downloading files, and live streaming video/audio. In eight of

the nine instances of significance difference, computer science/information technology majors were present. Further, computer science/information technology majors gave more importance to the WWW resources mentioned than other majors. In six instances out of the nine, computer science/information technology majors gave more importance to the WWW resources mentioned than law/humanities/social sciences majors. Although it is expected that computer science/information technology majors would find WWW resources more important than others due to their educational backgrounds and training, the result is significant and implies that law/humanities/social sciences majors need more education and training in relations to the WWW resources available.

### 5.2.3 Findings

Major findings for this research question included the following:

- World Wide Web, search engines, and E-mail were the most popular Internet applications used by journalists.
- FTP, podcasting, open-source software, telnet, RSS feeds, and Wikis were the least popular applications.
- Females spent more time than males in using 17 out of the 19 applications listed, with a significant difference for the WWW and E-mail. Females spent significantly more time using the WWW and E-mail than males.
- Younger journalists spent significantly more time using the applications listed than their oldest peers.
- Journalists who graduated from institutions in North America and Europe spent significantly more time using the applications listed than ones who graduated from institutions in Kuwait or the Middle East.
- A majority of females had at least 6 years of experience in using the Internet.
- Females sent and received more work related E-mail per day than males.
- Convenience was the major attraction of E-mail for the population.
  - Speed was the most popular attraction for females, while convenience was the most popular for males.
- Unsolicited messages were the major shortcoming of E-mail for the population.
- Newspaper sites, search engines, and news services were the most important WWW resources for the population.

- 10 out of the 19 WWW resources were viewed as less than average in importance.
- Females placed more importance than males on 18 out of the 19 WWW resources listed.
- Computer Science/Information Technology majors placed more importance on the WWW resources listed than their peers.

### **5.3 INFORMATION EVALUATION CRITERIA**

Journalists found all nine information evaluation criteria provided to be more than average in importance, with promptness and convenience in obtaining information, and accuracy, being the most important. Cost of obtaining information, authority of publisher, and interactivity with website were less important. Again, females placed more importance on eight out of the nine criteria than males. Males placed more importance on convenience in obtaining information than females.

The results indicate that journalists are willing to trade authority of publisher for promptness and convenience. This could be due to the nature of their work, and the many deadlines they face on a daily-basis. However, authority of publisher is an important criterion that should not be overlooked. Further, objectivity and currency of information ranked fifth, and sixth, in terms of importance. This could indicate the lack of understanding of these criteria, or reflect a work habit where time consumed finding the information is more important than the information itself. It is important for journalists to understand information evaluation criteria and be able to utilize them effectively. The findings were troubling, and are cause for effective educational and training interventions so that the Internet is used efficiently without affecting the

quality of output. Further, work habits could be changed to allow journalists sufficient time to use the WWW in an effective manner, rather than focus on speed over objectivity and authority.

In terms of gender, results were similar except for one significant difference in terms of cost of obtaining information. Females placed more importance on that criterion than males. Since previous results indicated that females spent more time using E-mail and the WWW than males, it is expected that cost would be important for them, as they depended on the WWW more than males for information.

For females, promptness in obtaining information and accuracy were the two most important criteria, while males indicated that promptness and convenience were the two most important criteria for them. Time could be an important factor here, as males, who indicated that time was the biggest obstacle they faced online, could be exchanging accuracy for convenience. As for females, time was the third major obstacle they faced online, implying that females had more time than males, and are not willing to exchange the accuracy of the information obtained online for any other factor.

Data analysis of information evaluation criteria by primary journalistic beat reflected significant differences for five of the eight criteria. Sports/entertainment journalists were the main source of significant difference, as they placed less importance on promptness, accuracy, coverage, objectivity, and authority, than their counterparts who covered features, and in some instances local, politics/economics, and education/arts & literature. This result is expected as sports/entertainment journalists rely heavily on the local community for news, and are less likely to turn to the WWW for information partly because local presence on the WWW is not yet large enough to be regarded as a source of local information. Also, newspapers in Kuwait usually obtain information regarding international sports and entertainment through news wires and

services. However, increasing the education and training of journalists who cover sports/entertainment can be useful and efficient for newspapers, as it could assist journalists in supplementing their news stories with facts and figures from the WWW, resulting in richer, more complete, news stories.

In terms of location of educational institution that the journalist graduated from, one instance of significance was found for interactivity with the website between graduates from North America/Europe and ones from the Middle East. Again, this could be the result of North American educational institution's being more open and adoptive of information technologies than their Middle Easter counterparts. Since the Internet and information technologies were primarily created and presented to the mass markets by North America, it is expected that graduates from their institutions are more aware of, and skilled, in using these technologies. Further, the Internet and a number of information technologies were presented in North America much earlier than the Middle East, which could account for the differences found here and elsewhere in the analysis.

Further, high-school graduates placed significantly more importance on promptness than Master-degree of higher holders. This is a troubling finding, indicating a need to educate high-school graduates on the information evaluation criteria, and methods of utilizing them effectively. Further, emphasizing promptness could indicate that high-school graduates prefer WWW resources that provide information quickly, rather than ones that provide accurate and authoritative information. This preference could affect news stories negatively, as erroneous information is more likely to be present. Education and practical training is necessary to improve the awareness of high-school graduates regarding evaluation criteria.

### **5.3.1 Findings**

Major findings for this research question included the following:

- All nine information evaluation criteria were found to be more than average in importance by the population, with promptness in obtaining information being the most important one.
- The authority of the publisher was viewed as less important.
- Females placed more importance than males on eight out of the nine evaluation criteria.
  - Promptness in obtaining information and accuracy were the most important criteria for females, while convenience in obtaining information and promptness were the most important for males.
  - A significant difference in means for gender was found for cost of obtaining information. Females placed more importance on cost than males.
- Journalists who covered sports/entertainment placed least importance on the information evaluation criteria.

## **5.4 INTERNET AND JOURNALISTIC TASKS**

Journalists found the Internet's importance to be average to very important for 11 of the 12 journalistic tasks provided. By gender, females placed more importance on the Internet for conducting eight out of the 12 in comparison to males. Only using the Internet to write an editorial, feature, opinion, or analysis, was found to be less than average in terms of importance.

Using the Internet was most important for finding difficult-to-find facts, the latest news to add to a news story, and documents to cite. These results could have implications for citing sources correctly, or plagiarism, since the three most important uses of the Internet for journalistic tasks included finding facts, news, and documents, to supplement news stories.

Although conducting research and finding story ideas were found to be important, they were not as highly ranked as the three tasks mentioned earlier. Again, raising awareness of the resources available on the Internet could improve journalistic tasks and make work processes more efficient and accurate. Promptness was found to be the most important information evaluation criteria, and therefore, affects what information, such as facts, latest news, or documents, is obtained for addition to news stories. As journalists rely more on promptness, it is more likely that their facts, latest news, or documents, contain errors that could have been avoided if other information evaluation criteria were utilized.

Data analysis by age revealed two instances of significant difference between the youngest age group and the oldest one for finding difficult-to-find facts, and fact-checking and verification. In addition to spending more time using E-mail and the WWW, the youngest journalists found the Internet significantly important for the two tasks mentioned than their oldest counterparts. This implies that younger journalists are more likely to depend on the WWW for their facts which is both positive and negative. It is positive since it indicated that the younger journalists are more embracing of the information technologies available and are likely to utilize it for the benefit of their work-related tasks. However, it is negative since depending on the WWW, without the proper education or awareness, could result in avoidable errors and mistakes that could be magnified in a medium such as a newspaper. Further, this finding reinforces previous ones about younger journalists being more adoptive and embracing of the

Internet and information technologies than their older counterparts. This could be due to a number of reasons including the period when the journalist was receiving his/her education, as educational institutions started vigorously embracing the Internet in the late 1990s and early 2000s in comparison to earlier periods.

In terms of length of experience, results indicated that beginning journalists relied on the Internet more to conduct research and define terms of concepts. Although the population ranked conducting research and defining terms of concepts as 10<sup>th</sup> and 11<sup>th</sup> respectively, beginning journalists indicated a heavy reliance on the Internet for conducting those two tasks. This could imply that beginning journalists either lack the skills required to conduct their journalistic tasks efficiently, or lack the necessary guidance from their older counterparts. Further, relying on the Internet could be due to the beginning journalist's fearfulness of asking others for assistance and directions to resources, as it might be viewed as a sign of incompetence in a highly competitive environment. Therefore, it is important to address this dependence on the Internet through education, training, and mentoring by more experienced journalists. Depending on the Internet is not a negative behavior by itself but doing so without the proper education and training could be negative which could reflect on the output produced by the journalists through errors, misinformation, and plagiarism.

In terms of citizenship, four tasks displayed significant differences involving Kuwaiti citizens and those from the Al-Sham countries. Kuwaiti citizens placed more importance on using the Internet to find documents, latest news, difficult-to-find facts, and fact-checking and verification, than their counterparts from the Al-Sham countries. This finding was reinforced when data was analyzed by the location of the educational institution that the journalist graduated from. For seven of the 12 tasks provided, graduates from institutions in Kuwait

differed significantly than their counterparts who graduated from North America/Europe. For one task, graduates from institutions in Kuwait differed from their counterparts who graduated from institutions in the Middle East. Generally, graduates from educational institutions in Kuwait placed more importance on using the Internet to conduct journalistic tasks than their counterparts.

These findings are troubling and indicate that Kuwaiti citizens and graduates of Kuwaiti institutions rely on the Internet heavily to conduct their journalistic tasks. Although the findings indicate that these two groups highly embrace the Internet, they also raise questions about the nature of that embracement that require further research and evaluation. These include the following:

- Are Kuwaiti citizens more embracing of the Internet due to educational curriculums that highly encourage Internet and information technologies usage? Are these curriculums well-established and built according to systematic means and methods?
- Are the work habits of Kuwaiti citizens similar, or different, than their counterparts from other countries? Do Kuwaiti citizens conduct fieldwork as much as their counterparts from other countries?
- What is the quality level of news stories produced by Kuwaiti citizens compared to non-Kuwaiti citizens in terms of errors and richness of content?
- Do experts in journalism education and knowledgeable journalists regard a high-dependence on the Internet for information as a positive, or negative, behavior?

Answering the questions mentioned is important as it could have great implications on journalism in Kuwait in terms of reinforcing current behaviors, or adjusting them, if necessary, through training and education.

### **5.4.1 Findings**

Major findings for this research question included the following:

- The Internet was found to be most important for finding difficult-to-find facts, the latest news to add to a story, and documents to cite.
- The Internet was least important for defining terms of concepts, finding story ideas, and writing editorials or features or opinions or analysis.
- Females, in comparison to males, found the Internet to be more important for conducting eight of the 12 tasks listed.
- Age and length of experience as a journalist affected the amount of importance placed on the Internet for conducting tasks. Younger, less experienced journalists placed more importance on the Internet than the oldest journalists.
- Kuwaiti citizens and graduates of educational institutions in Kuwait placed more importance on the Internet for conducting tasks than their counterparts.
- Journalists who knew more than one language placed more importance on the Internet for conducting tasks than ones who knew only one language.

## **5.5 INTERNET FOR INFORMATION**

Journalists indicated that they are average to more likely to use the Internet to find information about four out of the 12 information types provided. The four information types were political, arts and culture, tourism, and educational. Journalists were least likely to use the Internet to find

information about security/defense, and energy/industrial. Using the Internet for political information is more likely to be related to international politics than local since the local presence on the WWW is not significant yet. It could be that journalists supplement international political news received through the news wires and services with information from the Internet to provide more richness to their coverage. As for arts/culture and tourism, results are not surprising since that type of information is not readily available in the local community, and is only available through small libraries and related institutions that are not widely known. Increasing awareness of the resources available in the local community could benefit journalists looking for arts/culture and tourism information.

For the rest of the information types provided, such as science/technology, business/economy, and historical/geographical, journalists indicated that they were less likely to use the Internet to find such information. This could be due to the lack of awareness of the resources available online, or the lack of interest in finding such information and being satisfied with what is available locally. Again, education is important for raising awareness of the resources available online to enable journalists to have a wide spectrum of sources of information to access.

Analysis by gender showed that males, in comparison to females, were more likely to use the Internet for nine out of the 12 information types listed. Males were most likely to use the Internet for political information while females were most likely to use it for arts and culture information. Females were least likely to use the Internet to search for security and defense information while males were least likely to search for energy and industrial information.

When the data was analyzed by other variables, only the number of languages known displayed a significant difference for four of the 12 information types provided. Journalists who

knew three languages or more indicated that they were more likely to turn to the internet for information about business/economy, entertainment, sports, and tourism, than ones who knew only one, or two, languages. Of the four information types that displayed significant differences, only tourism was ranked higher than average by the general population. This indicates that language is important in terms of using the Internet for specific types of information, as journalists who knew three languages or more were significantly more likely to use the Internet for information types valued at below average by the general population. Targeted education for journalists could improve the situation, allowing journalists to use the Internet more efficiently. For example, journalists who cover business can be provided with a list containing the most popular and widely used business terms in Arabic and English.

### **5.5.1 Findings**

Major findings for this research question included the following:

- Journalists are most likely to use the Internet to find information about politics, arts and culture, tourism, and education. They are least likely to use the Internet to find information related to entertainment, security and defense, and energy and industry.
- Only four of the 12 information types listed had means greater than average, indicating that journalists do not heavily rely on the Internet for information.
  - Males were more likely than females to use the Internet to find information about nine of the 12 types of information provided, with the most likely search focusing on political information.

- Females were most likely to use the Internet to find information about art and culture.
- Level of education and languages known affected the likeliness of using the Internet to search for specific types of information. The likelihood of using the Internet to search for specific types of information increased as the educational level and the number of languages known increased.

## **5.6 SKILLS AND USAGE**

### **5.6.1 Skill-level for Applications/Tools/Software**

Journalists were skilled at the average to expert level in using four out of the 21 applications provided including E-mail, the WWW, operating systems, and word processing software. The general population indicated a lack of skill in using many applications such as web browsers, readers, databases, and language tools. Journalists were least skilled in using more recent innovations such as podcasting, RSS feeds, and Wikis. These results are troubling and indicate an important need for raising the skill-levels of journalists through education and training. Also, results indicate that despite the embracing of the Internet and information technologies, journalists in Kuwait are functioning in a more traditional, and obsolete, work environment. Increasing the skill-levels of journalists would affect the journalism sector in Kuwait positively, and introduce a new era of journalism.

Functioning in an obsolete environment might be satisfactory for the current time where only seven daily newspapers compete for readership, but as the Internet and information technologies further penetrate societies and human life with time, it will be unsatisfactory to be operating under the current conditions. Also, the increasing competition that is expected to arise between newspapers once new newspapers start publishing will make such work environments impractical for competing. Raising the skill-levels of journalists would not only benefit the journalists themselves and the daily tasks and routines, but the newspaper itself in terms of more efficient and timely output.

The analysis showed that females were found to be more skilled than males in using all of the 21 applications provided. Further, females were significantly more skilled than males in using 11 of the 21 applications provided. This could be attributed to the amount of time females spend using these applications in comparison to males as results showed. Also, it can be attributed to the nature of work of each gender. Males are more likely to conduct fieldwork, while females were more likely to use technology to conduct their work tasks. Also, time, age, and education are major factors that were found to affect Internet-related behaviors of journalists. Further research is required to examine the difference in skill-level between females and males.

In terms of age, the youngest journalists were significantly more skilled than others in using five of the 21 applications provided. As previous results showed, younger, less experienced, journalists depended more on the Internet than their older counterparts. Results for skill-levels reinforce previous findings.

As for length of experience as a journalist, data supported previous findings, where the less experienced, and younger journalists, were the most skilled ones in using information technology applications. Further, the length of experience in using the Internet affected skill-

level. Journalists with six to nine years of experience in using the Internet were the most skilled, while ones with the least experience, less than one year, were least skilled in using the applications. Clearly, the data indicated a link between age, length of experience as a journalist, and length of experience in using the Internet and skill-level. Younger, less experienced journalists, tended to be more experienced in using the Internet, and more skilled in using information technology applications.

As for E-mail, journalists who provided their E-mail for the follow-up interview by E-mail were more skilled than ones who did not in using 20 of the 21 applications provided. That difference in skills was significant for 10 of the applications. This result implies that journalists who own a personal E-mail are more likely to be skilled in using information technologies. Further, journalists who did not provide an E-mail address, could be less interested, or less embracing, of information technologies in general, and therefore, are less skilled in using the applications.

The number of languages known by a journalist significantly affected skill-levels for nine of the 21 applications provided. The main difference was between journalists who knew three languages or more, and ones who knew only one language. Multi-lingual journalists were more skilled in using the nine information technology applications. This could be due to the fact that most of these information technologies operate using the English-language. Therefore, journalists who know only one language are less likely to embrace, or utilize, these information technologies. Educational interventions could improve the situation, and assist journalists in using information technologies more efficiently. Further, designing multi-lingual information technology applications can be useful in assisting journalists in this regard.

The data analysis according to primary field of study indicated that computer science/information technology majors were more skilled than other majors in using five of the 21 applications provided. The less skilled groups for the five applications were journalism, and arts and education majors. Although it is expected that computer science/information technology majors would be more skilled in using information technologies, education is needed to raise the skill-levels of journalists majoring in all areas.

### **5.6.2 Usage of Information Technology Devices**

Data analysis was conducted to examine the journalists' usage of 17 information technology related devices. Results showed that journalists in Kuwait used devices that can be viewed as conventional, or ones that are well-established in the mass markets and have been available for the longest time. These include devices such as advanced mobile telephones, audio recorders, printers, desktop and laptop computers, and scanners.

However, results showed that journalists did not use more recent information technology innovations such as portable memory devices, Internet telephony, multi-use devices, and personal digital assistants. These findings reinforce skill-level results that showed journalists as being most skilled in using conventional applications such as E-mail and the WWW, while being least skilled in using more recent innovations such as podcasting, RSS feeds, and Wikis. Again, journalists are functioning in an obsolete environment that can be greatly enhanced through the correct and efficient use of the Internet and information technologies.

In terms of future behavior, journalists reflected mixed opinions. The highest number of respondents indicated that they do not use, and do not intend to use in future, devices such as

Internet telephony, MP3 players, and personal digital assistants. However, for portable memory devices, handheld translators, and multi-use devices, the highest number of respondents indicated that they could start using such devices in future. The mixed responses could be a result of lack of awareness of the functions of the different devices. Educating journalists on the features, benefits, and functions of technology devices, conventional and more recent ones, is necessary. This ensures that journalists are aware of the information technologies available, and can make a decision on whether to use a certain device or not to benefit their daily work routines.

Further, the analysis showed that the highest number of journalists do not use, and do not intend to use, regular film camera and pagers. This result was expected as these two devices have become obsolete as digital cameras and mobile telephones became widely available and affordable.

In terms of traditional and recent information technology devices, a majority of the population indicated that they used eight out of the 10 traditional devices, and only one of the recent devices. As for no use and no intention of using, journalists indicated that preference for two traditional devices and three recent ones. However, journalists indicated that they could start using half of the recent devices in future. These results show that journalists are not well-informed on the recent devices, as their preferences do not reveal a pattern, and their responses were mixed.

Analysis by gender showed that females used 12 out of the 17 devices listed more than males. As their skill-levels are higher, their experience in using the Internet is longer, it is expected that females used information technology devices more than males. However, examining recent devices showed that males used four out of the seven devices listed more than females did. This result was reflected by the future use data, where females were more likely

than males to start using five out of the seven devices listed. Again, results were mixed and did not reveal a clear pattern. Although females were more experienced and skilled in using the Internet, they were not using recent devices as much as males. This could be due to a number of factors including lack of awareness, satisfaction with what is currently available, or the cost of obtaining newer technologies. Further research is required to examine these issues including the devices afforded to journalists by their institutions, and ones that they have to acquire themselves.

In terms of age, the youngest journalists were the biggest users of eight out of the 17 devices. This finding reinforces previous ones related to age and experience, skill-level, and dependency on the Internet. Younger journalists are more likely to use, and be skilled at using, the Internet than their older counterparts. Analysis by length of experience further reinforced that finding as it indicated that the least experienced journalists, with less than one year of experience, were the biggest users for 10 out of the 17 devices listed.

Results of the analysis by citizenship did not reveal a pattern. Kuwaiti citizens, Egyptians, North Americans, and Europeans, were the biggest users for six of the 17 devices listed. For two devices, Egyptians and North Americans and Europeans were tied. The results clearly indicated that journalists from the Al-Sham countries were the biggest users of one device only- MP3 players. This could indicate a lack of skill that needs to be addressed promptly.

As the educational-level of journalists increased, so did their information technology device usage. Bachelor-degree holders or higher were the biggest users for 10 out of the 17 devices listed. On the other hand, journalists who were high-school graduates or lower were not the biggest users for any of the 17 devices listed. This proves that education and information technology usage are closely related, further emphasizing the need for better education.

In terms of primary fields of study, analysis showed that computer science and information technology majors were the biggest users of seven out of the 17 devices listed. This is an expected finding due to the nature of computer science education that is engrained in information technologies and devices. On the other hand, journalism majors were the biggest users of only two out of the 17 devices, with both being traditional devices. Clearly, journalism curricula need to be improved and enhanced to accommodate new technologies that can make work processes more efficient, and save time for the time-deficient journalists.

The number of languages a journalist knew directly affected device-usage behaviors. Analysis showed that journalists who knew three languages or more were the biggest users for 12 out of the 17 devices listed, including seven traditional and five recent devices. As the number of languages known increased, so did the usage of an information technology device. Clearly, the data indicated a relationship between language and device usage, which further emphasizes the need for better education.

Length of experience in using the Internet was also directly related to information technology device usage. As the length of experience increased, so did the usage of devices. Journalists with at least six years of experience in using the Internet were the biggest users of 16 out of the 17 devices listed, including six out of the seven recent devices. The most experienced journalists in using the Internet, with 12 or more years of experience, were the biggest users for six out of the 17 devices listed. The least experienced, with less than three years of experience in using the Internet, were not the biggest users for any of the 17 devices listed. Education can play an important role here, as providing students with experience early-on during their educational careers can enhance their Internet-related behaviors, including the usage of information technology devices.

Finally, data analysis showed that journalists who provided their E-mail addresses were significantly more likely to use information technology devices than ones who did not. Journalists who provided their E-mails were the biggest users of 13 out of the 17 devices listed, including nine traditional devices and four recent devices. Clearly, journalists who have a personal E-mail are more skilled and are bigger users of information technologies than ones who do not, or did not provide one. It could be due to awareness, knowledge, or education. This significant difference could be addressed through brief workshops that emphasize the benefits of E-mail, and how it can be used by journalists most effectively.

Overall, age, length of experience as a journalist, level of education, primary field of study, languages known, length of experience in using the Internet, and E-mail, were all major factors that shaped the usage-patterns of information technology devices by journalists. Further, length of experience in using the Internet was the biggest factor from all the ones mentioned previously in affecting information technology devices usage. The more experience journalists have with the Internet, the more likely it will be that they use information technology devices, both traditional and recent.

### **5.6.3 Findings**

Major findings for this research question included the following:

- Journalists were most skilled in using E-mail and the WWW. They were skilled more than average for four of the 21 applications listed.
- Journalists were least skilled in using podcasting, RSS feeds, and Wikis, which were the applications that were least used in terms of time.

- Females were more skilled in using all of the 21 applications listed, with the difference with males being significant for 11 applications.
- Younger journalists were more skilled than older ones in using the applications listed.
- Journalists who provided their E-mail addresses were more skilled than ones who did not for 20 of the 21 applications listed, with the difference being significant for 10 applications.
- Journalists who knew three languages or more were more skilled than ones who knew only one language in using the applications listed, with the difference being significant for nine out of the 21 applications listed.
- Computer Science/Information Technology majors were more skilled than other majors in using the applications listed, with the difference being significant in right instances.
- Basic and advanced mobile telephones, audio recorders, and printers were the most popular information technology devices used by journalists. The least used device by the population was a personal digital assistant.
- The youngest journalists were the biggest group of users for eight out of the 17 devices listed.
- The least experienced journalists were the biggest group of users for 10 out of the 17 devices listed.
- The amount of usage of information technology devices increased with educational level, number of languages known, length of experience in using the Internet, and if the journalist had provided an E-mail address.

## 5.7 SUMMARY OF DISCUSSION

Data analysis revealed that most print journalists in Kuwait lack the necessary skills required to use and efficiently operate the Internet and other information technologies. Time was a major factor that prevented the use of the Internet and also was the major obstacle journalists faced online. In terms of time spent using application related to the Internet, it was found that E-mail and the WWW were the two most popular and heavily used applications. Females spent more time, and were more skilled, than males in using all of the Internet and information technology applications provided.

Convenience was found to be the highest ranked factor that attracted print journalists to E-mail, while unsolicited messages was ranked as the highest factor that worried them. As for the WWW, journalists reflected a lack of knowledge and resources available online, and indicated that less than half of the 19 resources provided were average or higher in importance.

In terms of information evaluation criteria, print journalists found all criteria to be important with promptness in obtaining information being the most important one. The cost of obtaining information was more important for females than males. That finding reflected earlier results in terms of females spending more time using the Internet, and were more dependent on the medium than males.

Journalists indicated that the Internet was most important for finding difficult-to-find facts, and fact-checking and verification. Kuwaiti citizens and graduates of educational institutions in Kuwait reflected a high dependence on the Internet as a source of information. Kuwaiti citizens relied heavily on the Internet to conduct their journalistic tasks.

As for using the Internet to find specific types of information, journalists indicated that they would most likely search for political information online. Eight of the 12 information types were not likely to encourage print journalists to search for information online. In terms of skills, the general population showed less than average skill in using 17 of the 21 applications provided. Journalists were most skilled in using conventional applications such as E-mail and the WWW, while they were least skilled in using more recent applications such as podcasting, RSS feeds, and Wikis. Females were more skilled than males in using almost all of the applications listed. Information technology devices used by journalists reflected results of their skill-level. Journalists used more conventional devices such as mobile telephones, printers, and audio recorders. As for the more recent innovations, journalists were mixed, as they indicated that they would be willing to use some devices but not all of them. That finding implies that journalists lack the knowledge about recent innovations, and how these devices can assist them in conducting their daily tasks.

Overall, results showed that journalists have a lack of awareness and knowledge when it comes to the Internet and information technologies. Their Internet-related behaviors were poor, and required intervention to improve them gradually over time.

## **6.0 CONCLUSION AND RECOMMENDATIONS**

### **6.1 SUMMARY**

This study was conducted to gain a better understanding of Internet-related information behaviors of journalists in Kuwait. Results showed that journalists in general lacked the skills, awareness, and knowledge, required to efficiently use the Internet and its related technologies.

In terms of different measurement variables, females displayed better Internet-related information behaviors than males, yet they remain lacking in a number of areas. Age was an important factor shaping Internet-related information behaviors, as younger, less experienced, journalists were more skilled in using the Internet and its applications. However, young journalists displayed a dependency on the Internet for information, especially during their first years as journalists. This was a troubling finding as dependency on the Internet as a main source of information could have negative consequences in future.

Also, educational-level and the number of languages known were found to be important factors that affected Internet-related information behaviors. As the educational-level and number of languages increased, so did the skills, awareness, and usage behaviors of journalists. Graduates from educational institutions in Kuwait, and Kuwaiti citizens, placed the most importance on the Internet for conducting journalistic tasks, reflecting a high dependency on the medium. However, graduates from institutions in North America/Europe spent the most time

using the Internet and its applications. E-mail and the World Wide Web (WWW) were found to be the two most popular Internet applications used by journalists, who were most skilled in using them. Time was found to be a major obstacle hindering the Internet.

As for E-mail, its convenience was a major attraction while unsolicited messages were its major drawback. Further, journalists indicated that newspaper websites were the most important resource available to them on the WWW, followed by search engines and news services. The Internet, and the WWW, were mainly used to find facts, the latest news, and documents. Journalists indicated that the Internet was important for conducting 11 out of 12 journalistic tasks. As for evaluation, all journalists found information evaluation criteria to be important, with promptness in obtaining information being the most important one.

Also, journalists indicated that they were most likely to use the Internet to obtain four out of 12 types of information listed, including political, arts and culture, tourism, and education. As the educational-level and the number of languages known increased, the likeliness of using the Internet to obtain information also increased. The data showed a direct link between the two variables mentioned and Internet use.

In terms of skills, journalists showed above average skill in using only four out of the 21 applications provided. Females were above average in using five applications, while males were above average for using only E-mail and the WWW. Clearly, a lack of skills exists for both female and male journalists in Kuwait. The length of experience in using the Internet greatly affected skill-level. Journalists with six to nine years of experience were most skilled in using the applications listed. Also, journalists who provided their E-mails to participate in the follow-up interview by E-mail were more skilled than ones who did not.

As for devices used by journalists, the population was mostly reliant on traditional devices, with mobile phones, audio recorders, and digital cameras being the most popular. Similar to recent Internet applications such as blogs, wikis, and podcasting, recent devices are underutilized by journalists. Females used technology devices more than males. Again, the least experienced journalists, who were most skilled in using information technology devices, were the biggest users of many information technology devices. In addition to being most skilled in using information technology applications, Computer Science/Information Technology majors were the biggest users for a number of information technology devices. The number of languages known greatly affected device usage, as journalists who knew three languages or more were the biggest users of a majority of the information technology devices listed.

In addition to being the most skilled in using information technology devices, journalists who had six to nine years of experience in using the Internet were found to be the biggest group of users for a number of devices. Also, journalists who provided their E-mail addresses were found to be bigger users of information technology devices than ones who did not.

## **6.2 CONCLUSIONS**

Journalists in Kuwait are lacking in terms of Internet-related information behaviors. They can be regarded as being at the beginning stages of Internet adoption, and its effective usage. Spending most time, and being most skilled, in using E-mail and the WWW is an encouraging beginning for journalists in Kuwait. However, the Internet is not limited to E-mail and the WWW, and can

be a major source of information, and better work practices, if used properly and with efficient awareness and knowledge.

Further, journalists in Kuwait are divided by age, with the youngest journalists displaying better Internet-related information behaviors than their older colleagues. This could be a direct result of education, as journalists who received their education recently tended to display better behaviors than ones who did not. Other important factors dividing journalists in Kuwait include educational-level, number of languages known, length of experience as a journalist, and length of experience in using the Internet. Also, gender was found to be a factor in displaying better information behaviors, as females displayed better information behaviors than males.

Finally, journalists in Kuwait are lagging behind their counterparts in the developed world in terms of Internet-related information behaviors. Data showed that journalists in Kuwait compared well with their counterparts in the developed world in terms of E-mail and WWW behaviors. However, other issues such as information evaluation and using the Internet to conduct journalistic tasks showed that journalists in Kuwait required more experience.

Overall, enhancing the Internet-related information behaviors of journalists in Kuwait requires a multi-faceted approach that focuses on education and curricula, training, and workplace practices.

## 6.3 RECOMMENDATIONS

Based on the findings of this study, the researcher will recommend changes in general, in education, in training, and in workplace practices. When adopted and implemented, these recommendations will be effective in enhancing the Internet-related information behaviors for the benefit of journalists, newspapers, readers, educators, and society as a whole in Kuwait.

### 6.3.1 General

The government of Kuwait is commencing a number of initiatives targeting E-government, information-based society, and the integration of technology into all aspects of society. In general, there is a demanding need for raising awareness of the Internet, its applications, and the benefits that can come from it. This need, in addition to the government's initiatives, can be achievable by implementing the following recommendations:

- Along with the reform campaigns ongoing, launching a nation-wide campaign that focuses on the Internet, its uses, and its benefits, can greatly raise awareness of the medium.
- Providing inexpensive and efficient Internet access to the population, including individuals who cannot afford Internet access.
- Creating Internet-related centers that specialize in instructing individuals on the Internet at basic, intermediate, and advanced levels.
- Using the media to raise awareness of the Internet and its benefits by demonstrating the basic uses of the Internet and encouraging efficient use.

- Publishing educational, promotional, and instructive material that can assist individuals in learning more about the Internet and other information technologies.
- Using positive encouragement by hosting nation-wide contests and events featuring the Internet, such as a contest for best sites representing Kuwait.
- Permanently transferring some basic governmental activities online, such as applying for a passport, or registering to vote.
- Integrating and efficiently utilizing the Internet in the core institutions of society, to demonstrate how the Internet can be beneficial, in addition to encouraging Internet usage.
- Emphasize Internet-related skills for obtaining government employment, where more skilled applicants are given priority in employment.
- Establish and publicize a set of national goals related to the Internet, which are to be achieved according to a preset timetable.

### **6.3.2 Education and Curricula**

Education was a major factor shaping the Internet-related information behaviors of journalists in Kuwait. As the educational-level of journalists increased, so did their Internet-related information behaviors. Therefore, it is necessary to enhance education and curricula to enhance journalists' Internet-related information behaviors. This can be done by implementing the following recommendations:

- Evaluating and modifying current educational curricula at the high-school and university level to reflect efficient Internet-related information behaviors, recent technology applications and devices, and information evaluation criteria.

- Construct curricula that focus on the most recent Internet applications and information technologies
- Construct or modify curricula to focus on practical training related to the Internet in addition to theoretical instruction.
- Provide, or expand as needed, the information technology infrastructure, such as computer labs hosting the latest technologies, or increasing the number of computers, or providing a faster connection to the Internet.
- Encourage instructors to be up-to-date regarding the latest information technologies and resources available online.
- Encourage instructors to be proactive in teaching curricula related to the Internet by introducing new concepts, encouraging students to experiment with new technologies, and incorporating the Internet in their daily instruction through presentation, class-work, or homework.
- Host weekly, monthly, or yearly conferences, seminars, or lectures that focus on the latest trends in the Internet and information technology.
- Incorporate curricula that focus on information evaluation tools, criteria, and methods.
- Create flexible curricula that can be modified every course to focus on the latest information technologies.
- Encourage students to hand in their projects, papers, and homework electronically.
- Create a technology friendly environment for students so that they can embrace information technologies and learn how to use them efficiently.

### 6.3.3 Journalism-related Recommendations

In addition to the previous recommendations, journalism schools in Kuwait can implement the following recommendations to improve Internet-related information behaviors:

- Evaluate all curricula and identify ones that need modification to reflect efficient Internet use, advancements in information technologies, and practical training in using the Internet and information technologies.
- Broaden the perspectives of journalism students by introducing recent technologies both theoretically and practically by instructing them and allowing them to experiment with new devices.
- Create beat-specific curricula that focus on specific sources of information and ways of utilizing them efficiently. For example, creating a course related to the social sciences can focus on sources of information that are important in the social sciences and ways to use that information efficiently as journalists.
- Emphasize through instruction the importance of information evaluation criteria, and the important need of differentiating between good and bad information.
- Host school-wide contests that focus on the Internet in terms of best feature story written with the assistance of the Internet, or best website on information relevant to journalists.
- Instruct students on copyright laws in the digital age, with focus on what constitutes plagiarism and how information should be attributed correctly.
- Instruct journalists on online reporting, and the techniques that are required to be successful in as an online reporter.

### 6.3.4 Training

In addition to education and curricula, there is a need to enhance the training of journalists in Kuwait to improve their Internet-related information behaviors. This can be achieved by implementing the following recommendations:

- Create institution-wide workshops targeting journalists. These workshops should be brief in terms of time, and focused on a specific tool or application. Also, these workshops should be available at beginner, intermediate, and advanced levels to accommodate the different skill-levels of journalists.
- Create customized training courses for journalists in your institution after evaluating their specific needs.
- Allocate each journalist with time on a weekly or monthly basis for the sole purpose of training.
- Use a reward system for journalists who improve their Internet-related information behaviors.
- Target older, more experienced journalists for comprehensive training focused on the Internet and information technologies.
- Target younger, less experienced journalists for comprehensive training focused on information evaluation criteria, attributing digital information and copyright laws, and the pros and cons on dependency on the Internet.
- Host experts on Internet and information technology related issues at your institution on a regular basis.
- Create training benchmarks that are expected from every journalist at your institution.

### 6.3.5 Workplace Practices

The third factor for improving Internet-related information behaviors is workplace practices. Implementing the following recommendations can assist newspapers and journalists in achieving that goal:

- Create a work environment that encourages efficient Internet and information technology behaviors, and innovation, for the benefit of the individual and the organization. For example, this can be done by providing positive demonstrations of how the Internet and information technologies can be used to supplement a news story. Further, journalists with new ideas about utilizing the Internet for the benefit of work practices should be encouraged to express their ideas freely.
- Adopt a series of Internet and information technology related strategic goals to be achieved after a set period of time. These goals can focus on the skills of journalists, their training and education, and the quality of the output of journalists.
- Differentiate between online journalism and conventional journalism. Instead of providing a print-copy of the newspaper online, a newspaper can develop and evolve by adopting online journalism, where the newspaper is updated according to news developments continually throughout the day.
- Encourage mentoring and knowledge sharing in the organization by creating teams of journalists. A team can consist of an older, more experienced journalist, and a younger, less experienced journalist. This practice can improve Internet-related information behaviors for both journalists as the older journalists can learn about the Internet and information technologies from their younger colleagues, while the younger journalists can learn about journalism practices.

- Motivate older journalists to train and educate themselves about the Internet and information technologies.
- Emphasize quality of information over quantity. This can be done by implementing strategies to examine and evaluate information, and demonstrate to journalists what quality is expected from them.

### **6.3.6 LIS-related Recommendations**

For the LIS professionals, results of this study can assist in improving interactions with print journalists and better-understanding their information behaviors. The following recommendations are made to achieve that goal:

- Create guides for online resources for a variety of topics, such as politics, economics, etc., that include a diverse list of sources such as authoritative and dependable sites, journal sites, institutional sites, government sites, and more. These guides should be brief yet concise so that journalists can refer to them while interacting with electronic resources.
- Provide topic-specific library instruction that illustrates the resources available online, and discusses issues such as access, cost, and quality-related matters.
- Provide an interactive website for the organization's library that can guide journalists through the basics of online navigation and interaction, and provide guides and assistance.

- Become pro-active in the efforts to assist journalists, especially older ones, with their information needs by learning how to use relevant software and hardware, and be available to provide basic technical assistance, or information, if needed.

### **6.3.7 System-design**

From the results of this study, it was evident that Internet and information technology related behaviors of journalists in Kuwait were lacking. However, their preferences displayed a need for a system that is capable of assisting them efficiently in conducting their daily tasks. Implementing the following recommendations can assist in achieving that goal:

- Create a system that provides a fast Internet connection, and makes available basic Internet applications such as E-mail, the WWW, and a search engine.
- Create a system that is highly secure and can limit unsolicited messages (SPAM).
- Create a multi-lingual system with translation, dictionary, and thesaurus, capabilities.
- Include brief, user-friendly help instructions on how to operate the system
- Provide guides to sources of information that are screened by experts and viewed as good information.
- Provide access to multi-lingual reference information such as encyclopedias, atlases, and dictionaries.
- Provide beginner, intermediate, and advanced modes so that journalists can work using an electronic environment that they are comfortable with.
- Allow remote access to the system.

- Adopt a flexible system that can be expanded in future to accommodate for more complex journalistic tasks such as publishing news items electronically, which could potentially lead to an online production system in future.

## **6.4 FUTURE RESEARCH**

The results of this study uncovered a number of issues that require further research. These include:

- Examining the differences in Internet-related information behaviors between males and females, and whether time is the major factor causing that difference or whether other factors are involved.
- Examining the reliance of Kuwaiti citizens, and graduates from educational institutions in Kuwait, on the Internet. The examination could involve assessing the journalists' awareness of attribution and digital copyright laws.
- Examining the work environment in newspaper organizations in Kuwait, and whether they encourage or discourage Internet-related information behaviors. This examination can include gender to identify any possible factors that encourage or discourage males or females from using the Internet.
- Examining the differences in skills according to age, and whether the time of education is the major factor causing the difference between the youngest and the oldest journalists.
- Examining the output of journalists who are skilled in using information technologies in comparison to ones who are not according to a set of criteria chosen by the researcher.

- Conducting a study to examine the information behaviors of editors-in-chief at each newspaper, to identify whether their behaviors are adequate and encouraging of Internet and information technologies adoption, or not, and recommending improvements.
- Examining the reasons behind the low use of databases, and some technologies and applications, such as blogs, alerts software, and RSS feeds, and whether the reasons are related to poor information behaviors, or to other reasons such as lack of awareness, or the lack of need to use such technologies and applications to enhance work processes and tasks. Also, this examination could explore the nature of databases use, to identify which databases are heavily relied on, and reasons behind that behavior, if present.
- Examining the effects of Internet experience on Internet-related behaviors, and the factors behind such behaviors. This study found that behaviors improved as the length of Internet experience increased. However, that improvement peaked after six to nine years of Internet experience, and reflected a decline Internet experience surpassed the nine years mark. A future study can examine the factors behind the behavioral patterns uncovered by this study.
- Examining and describing the online Arabic resources that are used by journalists, and identifying websites that are viewed as reliable ones, and ones that are not, in an attempt to provide criteria and guidelines for creating reliable Arabic resources online.

### 6.4.1 Considerations for Future Researchers

From conducting this study, the researcher experienced a number of issues that should be considered by future researchers. Taking these issues into consideration can improve the overall execution of a follow-up or replication study. These issues include the following:

- **Time.** Researchers should take into account the time of execution of their study's research instruments, such as questionnaires. Administering questionnaires, or other instruments, during holidays, the summer months, or any other events that can be considered major, can greatly affect response rate. For this study, the summer months affected response rate, as many journalists were on leave. Further, the holy month of Ramadan affected the response rate for the follow-up interviews by E-mail, as journalists worked shorter hours, while their workloads stayed the same, giving them less time to participate in research studies.
- **Length of Research Instrument.** It is important to understand the culture that the researcher intends to examine. Research instruments acceptable in the developed world could be less acceptable elsewhere. The researcher found that many journalists in Kuwait thought that the questionnaire was long. However, the length of the questionnaire would be considered by many as acceptable in the developed world.
- **Type of Research Instrument.** In the case of this study, the researcher used interviews by E-mail. Although a large number of journalists provided their E-mail for the interview, not many understood what was required of them. Therefore, it was necessary to provide detailed instructions so that the least skilled respondent could have participated easily.

- **Personal Contacts.** To conduct research in the developing world, a researcher should have a good network of contacts at the organization targeted by the study. These contacts can be important for the success, or failure, of the study, as they are the ones who can encourage the population to participate. Further, personal contacts can make the process of distributing, administering, and collecting questionnaire more efficient by identifying individuals who could benefit the overall execution of the study. However, a researcher must be aware of the potential of bias that may result from using personal contacts.
- **Anonymity and Confidentiality.** This is an important issue that researchers should consider when conducting research in the developing world. Journalists were more open and likely to participate in the study when they were assured that their responses would not identify them in person. Further, confidentiality was important and effective in encouraging journalists to participate. Assuring the journalists that their responses would be anonymous and confidential was positive in encouraging participation. This allows journalists to participate without worrying about their job stability or fear of being singled out for negative comments.
- **Identification.** It was important for the progress of this study to assure newspaper officials that their organization was not being compared to the others, and that the study did not intend to rank journalists according to their newspaper affiliation. Newspapers in Kuwait exist in a highly competitive environment and any comparison would not be welcome as it could affect readership, advertising revenue, and overall authority of the newspaper.
- **Presence.** It is important for researchers to examine this issue before conducting their study. The physical presence of the researcher could greatly affect the outcome of the study in the developing world. In the developed world, contacting the population through

E-mail, or mail, might be an acceptable way of gathering data. However, in the developing world, physical presence is most important for the execution of the study. Meeting with contacts regularly was important for gathering data from the questionnaire for this study.

## APPENDIX A

### INSTITUTIONAL REVIEW BOARD APPROVAL LETTER



**University of Pittsburgh**  
*Institutional Review Board*

Exempt and Expedited Reviews

University of Pittsburgh FWA: 00006790  
University of Pittsburgh Medical Center: FWA 00006735  
Children's Hospital of Pittsburgh: FWA 00000600

3500 Fifth Avenue  
Suite 100  
Pittsburgh, PA 15211  
Phone: 412.383.1480  
Fax: 412.383.1500

TO: Abdulnasir Abdulla

FROM: Sue R. Beers, Ph.D., Vice Chair *Sue R. Beers*

DATE: May 10, 2006

PROTOCOL: Internet Behaviors of Print-Journalists in Kuwait's Daily Newspapers

IRB Number: 0603181

The above-referenced protocol has been reviewed by the University of Pittsburgh Institutional Review Board. Based on the information provided in the IRB protocol, this project meets all the necessary criteria for an exemption, and is hereby designated as "exempt" under section 45 CFR 46.101(b)(2).

- If any modifications are made to this project, please submit an 'exempt modification' form to the IRB.
- Please advise the IRB when your project has been completed so that it may be officially terminated in the IRB database.
- This research study may be audited by the University of Pittsburgh Research Conduct and Compliance Office.

**Approval Date:** May 10, 2006

SRB:kh

## APPENDIX B

### QUESTIONNAIRE

Dear Journalist,

The questionnaire you have been presented with is related to my research as a doctoral student at the Department of Library and Information Science at the University of Pittsburgh in the United States of America. It is designed to gather data for my dissertation titled "Internet-related information behaviors of journalists in Kuwait's daily newspapers," which is part of my work as a scholarship teaching assistant at the Department of Library & Information Science at Kuwait University.

This study is the first of its kind in Kuwait, and the Middle East, and aims to study aspects such as usage and importance of Internet applications, evaluating information found online, and evaluating information technology skills of journalists. Completing the questionnaire will take between 15 to 20 minutes of your valuable time.

Your kind participation is greatly appreciated, and will benefit the future of journalism in Kuwait especially knowing that evaluation and measurement are the building blocks of future planning and reform.

Please note that all the information gathered for the purposes of this study will be confidential and will be used only for educational and research purposes. Your anonymity is guaranteed, and the study will in no way identify the names of those who will participate. Your participation is voluntary, and you may withdraw from this project at any time.

For any additional inquiries about this study, you are encouraged to contact the researcher using any of the following methods:

**School of Information Sciences- DLIS  
University of Pittsburgh  
Pittsburgh, PA 15260  
aba10@pitt.edu  
+965-901-0500 (KUW)**

Thank you for your greatly appreciated cooperation.

DATE: / /2006

**Internet-related Behaviors of Print-Journalists in Kuwait's Daily Newspapers**

**i** Please answer all questions provided, as your responses are important for the outcome of this study. Thank you for your greatly appreciated time and cooperation.

**1** **SECTION ONE: Access and Usage** 

1. Do you use the Internet? Please check  one choice.

Yes → **If Yes, kindly proceed to question 4**

No → **If No, please answer the following questions**

2. What are **obstacles** that prevent you from using Internet? Please check  all choices that apply.

Access

Time

Training

Knowledge

Confidence

Desire

Support

Equipment

Language

Confidentiality

Nature of your job

Other (Please Specify) \_\_\_\_\_

3. Are you aware of the potential benefits of using Internet?

Yes

No

→ **Kindly proceed to question 20**

4. Where do you access the Internet? Please check  all choices that apply.

Home

Work

Mobile access

Internet Café

Other (  \_\_\_\_\_ )

5. Does your institution provide Internet access?

Yes

No → **If No, kindly proceed to question 7**

6. How **satisfied** are you with the Internet access provided by your institution?

Very satisfied

Generally satisfied

Somewhat dissatisfied

Very dissatisfied

7. **How long have you been using Internet? Indicate \_\_\_\_\_ year/s \_\_\_\_\_ month/s**

8. What are some obstacles you face when online? Please check  all choices that apply.

Time

Technical Support

Language

User confidentiality

Speed of Internet

Lack of guidance to sources

Information overload

Censorship

9. **Kindly indicate the amount of time you spend using each of the following Internet applications.** Please circle ○ one answer for each application.

Application	No Use	Time Spent Using Application				
		Less	⇔⇔⇔	More		
Electronic Mail (E-mail)	0	1	2	3	4	5
World Wide Web (WWW)	0	1	2	3	4	5
Search engines (Google™)	0	1	2	3	4	5
Directories (Yahoo!™, About.com™)	0	1	2	3	4	5
Forums (Discussion groups)	0	1	2	3	4	5
Messengers (MSN™, Yahoo!™)	0	1	2	3	4	5
Relay Chat (IRC)	0	1	2	3	4	5
Newsgroups (soc.culture.kuwait)	0	1	2	3	4	5
Listservs (Discussions via E-mail)	0	1	2	3	4	5
File Transfer Protocol (FTP)	0	1	2	3	4	5
Telnet (Access to remote systems)	0	1	2	3	4	5
Blogs (Blogger™, Blogware™)	0	1	2	3	4	5
Real Simple Syndication (RSS) Feeds	0	1	2	3	4	5
Wikis™ (Editable, collaborative sites)	0	1	2	3	4	5
Podcasting (Publishing to Internet feed)	0	1	2	3	4	5
Language Tools (Misbar™, Tarjim™)	0	1	2	3	4	5
Alerts software (BBC News™)	0	1	2	3	4	5
Databases (LexisNexis™)	0	1	2	3	4	5
Open-source software (Open Office)						

10. Do you use Electronic Mail (E-Mail)?

Yes       No      ➔ **If No, kindly proceed to question 14**

11. How many E-mail messages, both personal and work-related, do you send and receive everyday?

Sent? \_\_\_\_\_       Received? \_\_\_\_\_

12. What **attracts** you about E-mail? **Please check  THREE choices only.**

- |  |  |
|--|--|
| <input type="checkbox"/> Overcoming time differences             | <input type="checkbox"/> Cost                  |
| <input type="checkbox"/> Convenience                             | <input type="checkbox"/> Speed                 |
| <input type="checkbox"/> File uploading/downloading capabilities | <input type="checkbox"/> Storage capabilities  |
| <input type="checkbox"/> Indexing and search capabilities        | <input type="checkbox"/> Other (Specify _____) |

13. What **worries** you about E-mail? **Please check  THREE choices only.**

- |  |   |
|--|---|
| <input type="checkbox"/> Fate of message unknown     | <input type="checkbox"/> Lack of face-to-face interaction |
| <input type="checkbox"/> Confidentiality             | <input type="checkbox"/> Time consuming                   |
| <input type="checkbox"/> Unsolicited messages (Spam) | <input type="checkbox"/> Viruses                          |
| <input type="checkbox"/> Hacking your E-mail account | <input type="checkbox"/> Other (Specify _____)            |

14. Do you use the World Wide Web (WWW) such as Google™, Yahoo!™?

- Yes       No      ➔ If No, kindly proceed to question 20

15. Generally, what kind of effect has the WWW had on your work?

- Positive       Neutral       Negative

16. **Kindly indicate your perceived level of importance for the following WWW resources.** Please circle  one answer for each resource.

WWW Resource	Not Important			Very Important	
	1	2	⇒⇒ 3	4	5
Reference (i.e. for address, spelling)	1	2	3	4	5
Entertainment/Sports	1	2	3	4	5
Financial/Company	1	2	3	4	5
Government	1	2	3	4	5
Graphics/Pictures	1	2	3	4	5
Institutions (e.g. universities)	1	2	3	4	5
News services (i.e. Reuters™)	1	2	3	4	5
Newspapers	1	2	3	4	5
Magazines	1	2	3	4	5
Press releases	1	2	3	4	5
Scientific information	1	2	3	4	5
Odd/obscure information	1	2	3	4	5
Search engines	1	2	3	4	5
Statistics	1	2	3	4	5
Directories	1	2	3	4	5
Journals	1	2	3	4	5
Databases	1	2	3	4	5
Uploading/Downloading files	1	2	3	4	5
Live streaming video/audio	1	2	3	4	5
Other (List here _____)	1	2	3	4	5

## 2 SECTION TWO: Evaluation and Purpose

17. **Kindly indicate your perceived level of importance for the following criteria for evaluating websites.** Please circle ○ one answer for each criterion.

Criteria	Importance of Criteria				
	Not Important	1	2	3	Very Important
Authority of publisher	1	2	3	4	5
Accuracy of information	1	2	3	4	5
Convenience in obtaining information	1	2	3	4	5
Currency of information	1	2	3	4	5
Coverage of topic	1	2	3	4	5
Interactivity with website	1	2	3	4	5
Objectivity of publisher	1	2	3	4	5
Promptness in obtaining information	1	2	3	4	5
Cost of obtaining information	1	2	3	4	5
Other (Specify _____)	1	2	3	4	5

18. **Kindly indicate the importance of using Internet for conducting the following journalistic tasks.** Please circle ○ one answer for each task.

Task	Importance of Internet				
	Not Important	1	2	3	Very Important
Background for a news item	1	2	3	4	5
Documents to cite in a news item	1	2	3	4	5
Latest news to put in story	1	2	3	4	5
Statistics for a news item	1	2	3	4	5
Contact sources	1	2	3	4	5
Define terms or concepts	1	2	3	4	5
Find photographs	1	2	3	4	5
Find story ideas	1	2	3	4	5
Find difficult-to-find facts	1	2	3	4	5
Fact-checking & Verification	1	2	3	4	5
Write editorial/feature/opinion/analysis	1	2	3	4	5
Conduct research	1	2	3	4	5
Other (Specify _____)	1	2	3	4	5

19. **How likely are you to turn to the Internet for the following types of coverage?** Please circle ○ one answer for each task.

Coverage Type	Likelihood of using Internet				
	Less	⇒	Average	⇒	More
Political	1	2	3	4	5
Business & Economy	1	2	3	4	5
Educational	1	2	3	4	5
Entertainment	1	2	3	4	5
Sports	1	2	3	4	5
Health & Environment	1	2	3	4	5
Science & Technology	1	2	3	4	5
Energy & Industrial	1	2	3	4	5
Tourism	1	2	3	4	5
Security & Defense	1	2	3	4	5
Arts & Culture	1	2	3	4	5
Historical & Geographical	1	2	3	4	5

### 3 SECTION THREE: Skills

20. **Kindly indicate your skill-level in using the following Information Technology applications.** Please circle  one answer for each application. (Note that the scale starts at 1=novice to 5=expert)

Information Technology Application	Level of Expertise				
	Novice	⇒	Average	⇒	Expert
Operating Systems (Windows™, MacOS™)	1	2	3	4	5
Word Processing (MS Word™)	1	2	3	4	5
Spreadsheets (MS Excel™)	1	2	3	4	5
Databases (MS Access™)	1	2	3	4	5
Communication (Microsoft Messenger™)	1	2	3	4	5
E-mail	1	2	3	4	5
WWW (Any websites)	1	2	3	4	5
Telnet (Access to remote systems)	1	2	3	4	5
File Transfer Protocol (FTP)	1	2	3	4	5
Web Browsers (Netscape™, Firefox™)	1	2	3	4	5
Web Design Software (MS Frontpage™)	1	2	3	4	5
Presentation Software (MS Powerpoint™)	1	2	3	4	5
Audio/Video Software (RealPlayer™)	1	2	3	4	5
Readers (Adobe Acrobat™)	1	2	3	4	5
Anti-Virus Software (Norton™)	1	2	3	4	5
Blogs (Blogger™, Blogware™)	1	2	3	4	5
Real Simple Syndication (RSS) Feeds	1	2	3	4	5
Wikis™ (Editable, collaborative sites)	1	2	3	4	5
Podcasting (Publishing to Internet feed)	1	2	3	4	5
Language Tools (Misbar™, Tarjim™)	1	2	3	4	5
Alerts software (BBC News™, Sky News™)	1	2	3	4	5
Other (List _____)	1	2	3	4	5

21. As a journalist, which of the following devices do you use? Please check  all that apply. Note: If you do not use a device, indicate if you intend to do so in future, or not.

Device	Use	Don't use and don't intend to do so	Don't use but intend to do so in future
Basic Mobile Telephone			
Advanced Mobile (Bluetooth™)			
Personal Digital Assistant (PDA)			
Pager			
Portable Computer (Laptop)			
Desktop Computer			
Internet Telephone (Vonage™)			
Regular film camera			
Digital Camera			
Video Camera			
Audio Recorders			
Multi-Use devices (iPod™)			
MP3 Players (iPod shuffle™)			
Scanners			
Printers			
Handheld Translator			
Portable Memory Devices			
Other (List _____)			

**4** **SECTION FOUR: Demographics** 

 Please answer all questions in this section. Your information will remain confidential and anonymous.

22. Please indicate your gender

- Female                       Male

23. Please indicate  your age → \_\_\_\_\_ years
24. What is your primary journalistic beat? Please indicate \_\_\_\_\_
25. Please indicate the length of your experience as a journalist.  
**Indicate \_\_\_\_\_ year/s \_\_\_\_\_ month/s**
26. Please indicate your citizenship \_\_\_\_\_
27. What level of education have you completed? Please check  one option only
- Some high-school
  - High-school graduate
  - Diploma
  - Bachelor's degree
  - Master's degree
  - PhD
28. Please indicate your primary field of study \_\_\_\_\_
29. Indicate the educational institution where you obtained your last degree from  
 \_\_\_\_\_
30. How many languages are you fluent in? Kindly list \_\_\_\_\_

 **Dear Participant,**

**You are invited to volunteer for a brief interview via E-mail that aims to shed more light on the topics covered by the study. To participate, please provide your E-mail address in the space provided below. All information will remain confidential.**

**E-mail** .....

**5** **SECTION FIVE: Comments** 

If you have any comments, opinion, or ideas about Internet usage by print-journalists, you are encouraged to provide them in the space provided below.

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## ARABIC VERSION

عزيزي المشارك / عزيزتي المشاركة،،،  
تحية طيبة وبعد،،،

هذا الاستبيان الذي بين يديك يتعلق بموضوع اطروحتي لرسالة الدكتوراه المقدمة لكلية علوم المعلومات في جامعة بيتسبيرغ (University of Pittsburgh) بالولايات المتحدة الامريكية وعنوانها "السلوكيات المعلوماتية المتعلقة بالانترنت لدى الصحافيين العاملين في الصحف الكويتية اليومية" وهي جزء من عملي كمعيد عضو بعثة لدى قسم علوم المكتبات والمعلومات في جامعة الكويت.

وتعتبر الدراسة المذكورة الاولى من نوعها في الكويت والشرق الاوسط وتهدف الى تسليط الضوء على كيفية استخدام الانترنت من قبل الصحافيين من عدة نواحي تشمل التطبيقات المستخدمة واهميتها وكيفية تقييم المعلومات على الانترنت اضافة الى تقييم مهارات استخدام تكنولوجيا المعلومات لدى الصحافيين.

ان مشاركتكم الكريمة ستعود حتما بالنفع على مستقبل الصحافة في الكويت لأن التقييم والقياس هي اولى لبنات التخطيط للمستقبل والاصلاح.

يذكر ان جميع المعلومات المتعلقة بالدراسة سرية ولن تستخدم الا لغرض البحث العلمي ولذلك فان الاستبيان صمم بشكل يحفظ سرية هوية المشارك / المشاركة كما يتطلب من شخصكم الكريم التطوع للإجابة الصريحة والدقيقة لاهمية راىكم على نتائج الدراسة مع العلم بان اجابة جميع الاسئلة قد يستغرق ما بين 15 و 20 دقيقة من وقتكم الثمين.

ويرجى العلم بأن الاستبيان المرفق قد تمت مراجعته والموافقة عليه من قبل لجنة المراجعة المؤسسية (Institutional Review Board) لدى الجامعة المذكورة اعلاه.

ولكم مني جزيل الشكر والامتنان لمشاركتكم الكريمة.

اخوكم/ عبدالناصر عبدالله الشطي

في حال وجود اي استفسار لديكم عن هذا البحث يرجى التواصل مع الباحث عن طريق الوسيلة التي تفضلونها:

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Telephone: +965-901-0500 (KUW)

التاريخ: / / 2006

السلوكيات المعلوماتية المتعلقة بالانترنت لدى الصحافيين العاملين في الصحف الكويتية اليومية

① مهم : يرجى التكرم بالاجابة على جميع الاسئلة المطروحة وشكرا على وقتكم الثمين.

① القسم الاول: الارتباط وتطبيقات الانترنت

1- هل تستخدم الانترنت؟ يرجى اختيار اجابتك بوضع علامة

نعم  ← اذا كانت الاجابة (نعم) لطفا التقدم الى السؤال رقم 4  
لا  ← اذا كانت الاجابة (لا) لطفا الاجابة على الاسئلة التالية

2- ما هي المعوقات التي تمنعك من استخدام الانترنت؟ يمكنك اختيار اكثر من اجابة بوضع علامة

- الحصول على ارتباط او وصلة بالانترنت
- الوقت
- قلة التدريب
- قلة المعرفة
- عدم الثقة بمهارات استخدام الانترنت
- عدم وجود رغبة
- قلة الدعم من المحيطين بك
- عدم توفر الاجهزة
- حاجز اللغة
- عدم توفر الخصوصية على الانترنت
- طبيعة عملك
- اخر (اذكر \_\_\_\_\_)

3- هل تدرك المنافع المحتملة وراء استخدام الانترنت؟

نعم  لا  ← لطفا التقدم الى السؤال رقم 20

4- من اي مكان ترتبط بالانترنت عادة؟ يمكنك اختيار اكثر من اجابة بوضع علامة

- المنزل
- العمل
- وصلة متنقلة (جهاز محمول)
- مقهى انترنت (انترنت كافييه)
- اخر (اذكر \_\_\_\_\_)

5- هل توفر المؤسسة التي تعمل بها ارتباط او وصلة الى الانترنت؟

نعم  لا  ← اذا كانت الاجابة (لا) لطفا التقدم الى السؤال رقم 7

6- ما مدى رضاك عن ارتباط او وصلة الانترنت التي توفرها لك المؤسسة التي تعمل بها؟

- راض بشدة
- راض
- غير راض
- غير راض بشدة

7- منذ متى و انت تستخدم الانترنت؟ يرجى كتابة  المدة في الخانة  سنة/وات  /شهر

8- ما هي المعوقات التي تواجهكم اثناء استخدام الانترنت؟ يمكنك اختيار اكثر من اجابة بوضع علامة

- الوقت  الدعم التقني  اللغة  لا خصوصية  
 بطء الوصلة  قلة الارشاد لمصادر المعلومات  كثرة المعلومات  الرقابة

9- يرجى تبيان مقدار الوقت الذي تمضيه في استخدام كل وسيلة من وسائل الانترنت المذكورة. يرجى وضع دائرة  على اجابة واحدة لكل وسيلة (المقياس تصاعدي اذ يرمز 0 الى عدم الاستخدام و5 للاستخدام الكثير).

الوقت المستهلك في الاستخدام ←←←←					لا استخدم	الوسيلة
5	4	3	2	1	0	
5	4	3	2	1	0	البريد الالكتروني (E-mail)
5	4	3	2	1	0	صفحات شبكة الانترنت (WWW)
5	4	3	2	1	0	محركات البحث (مثلا Google)
5	4	3	2	1	0	دليل عام (مثلا Yahoo!)
5	4	3	2	1	0	منتديات (Forums)
5	4	3	2	1	0	المحادثة (مثلا MSN, Yahoo!)
5	4	3	2	1	0	محادثة التناوب للانترنت (IRC)
5	4	3	2	1	0	مجموعات الاخبار (Newsgroups)
5	4	3	2	1	0	خدمات القوائم البريدية (Listservs)
5	4	3	2	1	0	بروتوكول نقل الملفات (FTP)
5	4	3	2	1	0	التواصل مع انظمة عن بعد (Telnet)
5	4	3	2	1	0	المدونات او المفكرات الشخصية (Blogger)
5	4	3	2	1	0	ممول خلاصات المواقع (RSS Feed)
5	4	3	2	1	0	مواقع قابلة للتنقيح من قبل المستخدم (Wikis)
5	4	3	2	1	0	البث الصوتي الرقمي (Podcasting)
5	4	3	2	1	0	ادوات وبرامج لغوية (مبار او ترجم)
5	4	3	2	1	0	برامج التنبيه (BBC News)
5	4	3	2	1	0	قواعد البيانات (Databases)
5	4	3	2	1	0	برامج المصدر المفتوح (Open-source)

10- هل تستخدم البريد الالكتروني (E-mail)؟

نعم  لا  اذا كانت الاجابة (لا) لطفا التقدم الى السؤال رقم 14

11- كم عدد الرسائل البريدية سواء الشخصية او المتعلقة بالعمل التي تقوم باستقبالها وارسالها عن طريق البريد الالكتروني؟ يرجى كتابة  الرقم التقريبي في الخانة.

ارسال \_\_\_\_\_ استقبال \_\_\_\_\_

12- ما المزايا التي تعجبك في البريد الالكتروني؟  ثلاث اجابات فقط

- التغلب على مسألة اختلاف الوقت بين الدول  السعر  
 سهولة الاستخدام  سرعة التواصل  
 المقدرة على ارسال واستقبال الملفات  القدرات التخزينية  
 قدرات الفهرسة والبحث  اخر (اذكر هنا \_\_\_\_\_)

13- ما القضايا التي تثير قلقك حول البريد الالكتروني؟ يمكنك اختيار  ثلاث اجابات فقط

- عدم معرفة مصير الرسالة المرسله  
 عدم توفر الخصوصية  
 قلة التواصل الشخصي وجها لوجه  
 استهلاك الوقت  
 استقبال رسائل دعائية وغير مرغوبة  
 الفيروسات  
 قرصنة بريدك الالكتروني  
 اخر (اذكر هنا \_\_\_\_\_)

14- هل تستخدم صفحات الشبكة العالمية ( WWW )؟

- نعم  لا  اذا كانت الاجابة (لا) لطفا التقدم الى السؤال رقم 20

15- ما هو التأثير العام للشبكة العالمية على عملك؟

- ايجابي  محايد  سلبي

16- يرجى تبيان اهمية الانواع التالية من مواقع وخدمات الشبكة العالمية لديك. يرجى وضع دائرة  على اجابة واحدة لكل نوع او خدمة مع العلم بان المقياس تصاعدي اذ يرمز 1 الى "غير مهم" و5 الى "مهم جدا".

اهمية الموقع او الخدمة ↔↔↔ غير مهم مهم جدا					نوعية الموقع او الخدمة
5	4	3	2	1	مرجع (قاموس او مترجم)
5	4	3	2	1	موقع ترفيهي / رياضي
5	4	3	2	1	موقع شركة تجارية / مالية
5	4	3	2	1	موقع حكومي
5	4	3	2	1	موقع صور / رسم بياني ( graphics )
5	4	3	2	1	موقع مؤسسة (مثلا جامعة او منظمة خيرية)
5	4	3	2	1	خدمة اخبارية (مثلا رويترز)
5	4	3	2	1	موقع صحيفة
5	4	3	2	1	موقع مجلة
5	4	3	2	1	موقع تصريحات صحافية ( Press Releases )
5	4	3	2	1	موقع علمي
5	4	3	2	1	موقع معلومات غريبة او غامضة او مغمورة
5	4	3	2	1	خدمة محرك بحث (مثلا Google)
5	4	3	2	1	موقع احصاءات
5	4	3	2	1	موقع دليل (مثلا Yahoo!)
5	4	3	2	1	موقع مجلة علمية
5	4	3	2	1	موقع قاعدة بيانات
5	4	3	2	1	خدمة تحميل وتنزيل ملفات
5	4	3	2	1	خدمة النقل المرئي والصوتي المباشر
5	4	3	2	1	اخر (اذكر _____)



② القسم الثاني: تقييم المعلومات واستخداماتها ①

17- يرجى تبيان أهمية المعايير التالية من في تقييم المعلومات والمواقع الموجودة على الشبكة العالمية. يرجى وضع دائرة ○ على اجابة واحدة لكل معيار مع العلم بان المقياس تصاعدي.

المعيار					غير مهم مهم جدا	↔↔↔
5	4	3	2	1	وزن ونفوذ ناشر المعلومة ( Authority )	
5	4	3	2	1	دقة المعلومة ( Accuracy )	
5	4	3	2	1	سهولة الحصول على المعلومة ( Convenience )	
5	4	3	2	1	أنية المعلومة ( Currency )	
5	4	3	2	1	تغطية الموضوع بشكل مناسب ( Coverage )	
5	4	3	2	1	التفاعل مع ناشر المعلومة ( Interactivity )	
5	4	3	2	1	موضوعية المعلومة او الناشر ( Objectivity )	
5	4	3	2	1	سرعة العثور على المعلومة ( Promptness )	
5	4	3	2	1	تكلفة الحصول على المعلومة ( Cost )	
5	4	3	2	1	اخر (اذكر	

18- يرجى تبيان أهمية الانترنت لاداء الاعمال الصحافية التالية. يرجى وضع دائرة ○ على اجابة واحدة لكل عمل مع العلم بان المقياس تصاعدي اذ يرمز 1 الى "غير مهم" و 5 الى "مهم جدا".

العمل					غير مهم مهم	استخدام الانترنت ↔↔↔
5	4	3	2	1	وضع خلفية عامة لخبر	
5	4	3	2	1	الاستشهاد بوثائق لتعزيز خبر	
5	4	3	2	1	اضافة احدث التطورات الى خبر	
5	4	3	2	1	اضافة احصاءات لخبر	
5	4	3	2	1	الاتصال بمصادر اخبارية	
5	4	3	2	1	تعريف او توضيح كلمة او مفهوم	
5	4	3	2	1	البحث عن صور فوتوغرافية	
5	4	3	2	1	البحث عن افكار لكتابة مادة صحافية	
5	4	3	2	1	البحث عن معلومات غير متوفرة بسهولة	
5	4	3	2	1	تأكيد وتدقيق المعلومات	
5	4	3	2	1	كتابة افتتاحية / تحليل / عمود	
5	4	3	2	1	اجراء بحث او دراسة	
5	4	3	2	1	اخر (اذكر	



19- ما هو احتمال استخدامك للانترنت من اجل الحصول على معلومات لتغطية الانواع المذكورة من الاخبار؟ يرجى وضع دائرة O على اجابة واحدة لكل نوع.

احتمال استخدام الانترنت					نوع الخبر
كبير	قليل	متوسط	←	←	
5	4	3	2	1	سياسة
5	4	3	2	1	اقتصاد واعمال
5	4	3	2	1	تعليم
5	4	3	2	1	ترفيه
5	4	3	2	1	رياضة
5	4	3	2	1	صحة وبيئة
5	4	3	2	1	علوم وتقنيات
5	4	3	2	1	طاقة وصناعة
5	4	3	2	1	سياحة
5	4	3	2	1	امن ودفاع
5	4	3	2	1	اداب وثقافة
5	4	3	2	1	تاريخ و جغرافيا

### 3 القسم الثالث: المهارات

20- يرجى تبيان مستوى مهارتك في استخدام كل من التطبيقات التالية. يرجى وضع دائرة O على اجابة واحدة لكل تطبيق مع العلم بان المقياس تصاعدي اذ يرمز 1 الى مبتدىء و5 الى خبير .

مهاراة الاستخدام					التطبيق
مبتدىء	قليل	متوسط	←	←	
5	4	3	2	1	انظمة تشغيل (مثل ويندوز)
5	4	3	2	1	برامج معالجة نصوص (مثل MS Word)
5	4	3	2	1	برامج جداول ممتدة (مثل MS Excel)
5	4	3	2	1	برامج قواعد بيانات (مثل MS Access)
5	4	3	2	1	برامج اتصالات (مثل Paltalk)
5	4	3	2	1	البريد الالكتروني
5	4	3	2	1	الشبكة العالمية ( WWW )
5	4	3	2	1	التواصل مع انظمة عن بعد ( Telnet )
5	4	3	2	1	بروتوكول نقل ملفات ( FTP )
5	4	3	2	1	متصفح الانترنت (مثل Netscape)
5	4	3	2	1	برامج تصميم مواقع (مثل MS Frontpage)
5	4	3	2	1	برامج العرض (مثل MS Powerpoint)
5	4	3	2	1	برامج عرض مرئي/سمعي (مثل RealPlayer)
5	4	3	2	1	برامج قراءة ملفات (مثل Acrobat Reader)
5	4	3	2	1	برامج حماية (مثل Norton)
5	4	3	2	1	المدونات او المفكرات الشخصية ( Blogger )
5	4	3	2	1	ممول خلاصات المواقع ( RSS Feed )
5	4	3	2	1	مواقع قابلة للتنقيح من قبل المستخدم ( Wikis )
5	4	3	2	1	البث الصوتي الرقمي ( Podcasting )
5	4	3	2	1	ادوات وبرامج لغوية (مسبار او ترجم)

5	4	3	2	1	برامج التنبيه ( BBC News )
5	4	3	2	1	اخر (اذكر )

21- **بصفتك صحافي، ما هي الاجهزة التي تستخدمها في عملك؟** في حال تبيان عدم الاستخدام يرجى تبيان ما اذا كنت تنوي استخدام الجهاز المذكور مستقبلا من عدمه. لطفا بين اجابتك بوضع علامة

لا استخدم ولكن انوي الاستخدام لاحقا	لا استخدم ولا انوي الاستخدام	استخدم	الجهاز
			هاتف محمول اساسي
			هاتف محمول متطور (بلوتوث)
			مساعد رقمي شخصي (PDA)
			جهاز مناداة
			كمبيوتر محمول (لابتوب)
			كمبيوتر مكتب (ديسكتوب)
			هاتف بواسطة الانترنت (Vonage)
			كاميرا تقليدية
			كاميرا رقمية
			كاميرا فيديو
			جهاز تسجيل سمعي
			اجهزة متعددة الاغراض (iPod)
			مشغل ملفات MP3 ( Ipod Shuffle)
			ماسح ضوئي (سكانر)
			طابعة
			مترجم محمول
			وسائل تخزين محمولة ( USB )
			اخر (اذكر )

#### 4 القسم الرابع: المعلومات الشخصية

مهم : يرجى العلم بان جميع الردود ستحظى بالسرية الكاملة

22- الجنس  انثى  ذكر

23- كم تبلغ/ين من العمر؟ يرجى كتابة الرقم في الخانة \_\_\_\_\_

24- ما هو مجالك الصحافي الرئيسي؟ (مثلا اقتصاد، رياضة، صحة) \_\_\_\_\_

25- يرجى ذكر عدد سنوات خبرتك العملية في الصحافة. يرجى كتابة  الرقم في الخانة \_\_\_\_\_

26- يرجى تبيان البلد الذي تنتمي اليه \_\_\_\_\_

27- ما هو اعلى مؤهل تعليمي حصلت عليه؟

- دون الثانوية العامة       ثانوية عامة       دبلوم  
 بكالوريوس جامعي       ماجستير       دكتوراه

28- يرجى تبيان التخصص الدراسي هنا \_\_\_\_\_

29- يرجى ذكر المؤسسة/المؤسسات التعليمية التي تخرجت منها \_\_\_\_\_

30- لطفا اذكر جميع اللغات التي تجيدها \_\_\_\_\_

① انكم مدعوون للتطوع بالمشاركة في مقابلة مختصرة عبر البريد الالكتروني بهدف تسليط المزيد من الضوء على نتائج الدراسة. للمشاركة يرجى كتابة عنوان بريدكم الالكتروني.

عنوان البريد الالكتروني \_\_\_\_\_

### ⑤ القسم الخامس: التعليقات

شكرا على مساهمتكم الكريمة في هذا البحث. اذا كان لديك تعليق او فكرة او رأي حول موضوع الدراسة يرجى التكرم بكتابتها  في المكان المخصص لذلك. في حال الحاجة الى مساحة اكبر يرجى الكتابة خلف  هذه الصفحة.

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## APPENDIX C

### QUESTIONNAIRE-RELATED LETTERS

Dear Editor-in-Chief,

I am sending this letter to request your kind assistance in my research project. I am a PhD student on scholarship through the Department of Library and Information Science at Kuwait University since 2003.

Currently, I am working on a dissertation titled “Internet Behaviors of Print-Journalists in Kuwait’s Daily Newspapers” at the University of Pittsburgh in the United States of America. The dissertation aims to explore the internet behaviors of journalists in terms of what applications are depended on, what evaluation techniques are used, and the skill-level of journalists in using applications of information technology.

Your organization’s participation in the study, the first of its kind in Kuwait and the Middle East, is very important for the final outcome. In addition, your valued participation will add to the accuracy of the results, and assist in exploring new paths of research in future. As a previous journalist, I am greatly aware of the issues faced by journalists in Kuwait, and seek to provide a means of improving, and reforming current practices through systematic research.

Also, I would like to assure you that all the information obtained for the purpose of this study will be anonymous and confidential. No information will be used for any purpose other than the research study mentioned, and no person will be singled out for identification. Your participation is voluntary, and you may withdraw from this study at any time.

The targeted population includes the Editor-in-Chief and his/her assistants, editorial managers and his/her assistants, heads of departments and their assistants, editors, and journalists. Any individual who receives a payment for a journalistic task is targeted.

If you have any inquiries about this study, you are encouraged to contact the researcher using any of the methods listed below. Thank you for your time.

Abdulnasir Abdulla Al-Shatti  
School of Information Sciences- Department of Library and Information Science  
University of Pittsburgh

## ARABIC VERSION

السيد رئيس التحرير المحترم،،،  
تحية طيبة وبعد،،،

في البداية أود اخطاركم بأنني بعثت في عام 2003 من قبل قسم علم المكتبات والمعلومات في جامعة الكويت للحصول على درجة الدكتوراه في تخصص علم المكتبات والمعلومات.

واقوم حاليا كطالب دكتوراه في جامعة بيتسبيرغ الامريكية بكتابة الأطروحة عن السلوك المعلوماتي للصحافيين لدى استخدام الشبكة الالكترونية (انترنت) من خلال استبيان يشمل جميع العاملين في الصحف اليومية الكويتية.

لذا، ارجو من سعادتكم الموافقة على الاشتراك في هذه الدراسة التي ستكون الاولى من نوعها في الكويت والشرق الاوسط علما بأن مشاركتكم الكريمة ستزيد من صدق وثبات الدراسة مما يعود بالنفع على الجميع.

كما اود ان اشير الى ان جميع المعلومات المتعلقة بالصحافيين ستكون سرية ولن يتم التطرق لاشخاص بذاتهم في الدراسة.

وتشمل الدراسة جميع العاملين في صحيفتكم الموقرة وأقصد بالتحديد كل من يتقاضى راتبا شهريا نظير عملا تحريريا ويشمل ذلك رئيس التحرير ونوابه، مدير التحرير ونوابه، رؤساء الأقسام، المحررين، والصحافيين.

وفي حال وجود استفسارات اضافية حول طبيعة الدراسة يرجى التكرم بالاتصال بالباحث.

وفي الختام تقبلوا تحياتي وشكري الجزيل املا ان تساهم هذه الدراسة في تنمية وتطوير مهنة الصحافة في الكويت.

ابنكم المعيد/ عبدالناصر عبدالله الشطي

Abdulnasir Abdulla Al-Shatti  
School of Information Sciences- DLIS  
University of Pittsburgh  
Pittsburgh, PA 15260  
aba10@pitt.edu  
+965-901-0500 (KUW)

## REMINDER LETTER

Dear Journalist,

Ten days ago you were provided with a questionnaire, which is part of a study titled “Internet Behaviors of Print-Journalists in Kuwait’s Daily Newspapers.”

If you have already completed and returned the questionnaire, please accept my appreciation, and disregard this letter.

**If you have not completed and returned the questionnaire, please do so as soon as possible.** Your participation is important, and will affect the final results of the study. For your convenience, a new copy of the questionnaire is provided.

For further questions, please contact me using any of the methods provided below. Thank you for your time.

**Abdulnasir Abdulla Al-Shatti**  
**School of Information Sciences- Department of Library and Information Science**  
**University of Pittsburgh**  
**Pittsburgh, PA 15260**  
**E-mail: [aba10@pitt.edu](mailto:aba10@pitt.edu)**  
**Telephone: +1-412-983-5315 (USA)**

## ARABIC VERSION

عزيزي المشارك / عزيزتي المشاركة،،،

تحية طيبة وبعد،،،

قبل عدة ايام تم في صحيفتكم الموقرة توزيع استبيان يخص دراسة بعنوان "السلوكيات المعلوماتية المتعلقة بالانترنت لدى الصحافيين العاملين في الصحف الكويتية اليومية".

في حال اتمامكم الاستبيان وايداعه لدى الشخص المسؤول تقبلوا تحياتي وشكري.

وفي حال عدم اتمامكم للاستبيان يرجى فعل ذلك باسرع وقت اذ ان مشاركتكم الكريمة مهمة جدا وستعود بالنفع على النتائج النهائية للدراسة.

ولاجل راحتكم تم توفير نسخة جديدة من الاستبيان.

في حال وجود اي استفسار لديكم عن هذا البحث يرجى التواصل مع الباحث عن طريق الوسيلة التي تفضلونها:

عبدالناصر عبدالله الشطي

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## QUESTIONNAIRE PRE-TESTING LETTER

Dear colleague,

You have been randomly chosen, as a student of journalism and mass communications, to participate in the pre-testing of an academic questionnaire. I am currently conducting a research study titled “Information Behaviors of Print-Journalists in Kuwait’s Daily Newspaper.” The study is part of fulfilling the requirements for a PhD degree at the Department of Library and Information Science at the University of Pittsburgh.

The study, the first of its kind in Kuwait and the Middle East, will examine Internet-related behaviors, such as preferences and uses of E-mail, the World Wide Web (WWW), etc. In addition, the study will examine journalists’ skills in evaluating information found online, and their skills in using Internet Technologies.

I would greatly appreciate your assistance regarding this important matter. Your important role requires that you carefully examine the attached questionnaire, and provide me with feedback regarding content, format, clarity, flexibility, and comprehensiveness of the questionnaire. Your feedback is of great importance and will affect the overall design of the questionnaire.

For example, your feedback can include comments about re-wording a question, or clarifying a question, or using a different word that is more understandable, or any issue that is important to the overall outcome. Also, kindly provide the time it took for you to complete the questionnaire.

Please note that all information collected through this process is confidential, and will not be released to any third-parties. The information you provide will be used for research purposes only.

You can send your feedback via E-mail to [aba10@pitt.edu](mailto:aba10@pitt.edu), or by regular mail using the address provided below. Please note that the deadline for feedback is the 1<sup>st</sup> of May, 2006.

Thank you for your greatly appreciated time and assistance. For further information, please contact me using any of the methods provided below.

Yours truthfully,

**Abdulnasir Abdulla Al-Shatti**  
**School of Information Sciences- Department of Library and Information Science**  
**University of Pittsburgh**  
**Pittsburgh, PA 15260**  
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## ARABIC VERSION

عزيزي الطالب، عزيزتي الطالبة،

تحية طيبة وبعد،

تم اختياركم عشوائيا كطلبة اعلام للمشاركة في تحليل صحة استبيان علمي ضمن دراسة عنوانها **"السلوكيات المعلوماتية المتعلقة بالانترنت لدى الصحافيين العاملين في الصحف الكويتية اليومية"**. تأتي هذه الدراسة ضمن متطلبات درجة الدكتوراه لدى قسم علم المكتبات والمعلومات لدى جامعة بيتسبيرغ وهي الاولى من نوعها في الكويت والشرق الاوسط.

وتهدف الدراسة الى تسليط الضوء على كيفية استخدام الانترنت من قبل الصحافيين من عدة نواحي تشمل التطبيقات المستخدمة واهميتها وكيفية تقييم المعلومات على الانترنت اضافة الى تقييم مهارات استخدام تكنولوجيا المعلومات لدى الصحافيين.

ان مشاركتكم الكريمة ستعود حتما بالنفع على مستقبل الصحافة في الكويت لأن التقييم والقياس هي اولى لبنات التخطيط للمستقبل والاصلاح.

ويرجى التكرم بتوفير معلومات تتعلق بتصميم الاستبيان، وضوح المعنى، سهولة فهم الاسئلة، مواضيع الاسئلة، واي امور اخرى ترونها ضرورية وتحسن الاستبيان. كما يرجى ذكر الوقت الذي استغرقته لاتمام الاستبيان.

وبامكانكم ارسال ردودكم عبر البريد الالكتروني الى [aba10@pitt.edu](mailto:aba10@pitt.edu) او من خلال البريد على العنوان المذكور ادناه. ويرجى العلم بان جميع المعلومات التي قد توفرونها ستبقى سرية ولن تستخدم الا لغرض البحث العلمي.

في حال وجود اي استفسار لديكم عن هذا البحث يرجى التواصل مع الباحث عن طريق الوسيلة التي تفضلونها:

عبدالناصر عبدالله الشطي

**School of Information Sciences- Department of Library and Information  
Science**

**University of Pittsburgh  
Pittsburgh, PA 15260**

**[aba10@pitt.edu](mailto:aba10@pitt.edu)**

**Telephone: +1-412-983-5315 (USA)**

ولكم مني جزيل الشكر والامتنان لمشاركتكم الكريمة.

## **APPENDIX D**

### **FOLLOW-UP INTERVIEW BY E-MAIL**

#### **Internet Behaviors of Print-Journalists in Kuwait's Daily Newspapers**

##### **Follow-up Interview By E-mail**

Thank you for participating in this study. Please answer the following questions. Your input is greatly valued, and will be given great consideration in the final results of this study.

1. In your opinion, do you think that the Internet and other information technologies encourage females to pursue careers in journalism or not? Why?
2. Please describe a situation where the Internet was instrumental in the development of a news story.
3. Do you encourage enhancing the current educational curricula in Kuwait to improve Internet-related behaviors of journalists? Why? And what changes would you recommend?
4. What should training seminars and workshops focus on in order to improve Internet-related behaviors of journalists?
5. Will creating more "journalist friendly" systems, or software, improve Internet-related behaviors of journalists? What would these systems consist of? (For example E-mail, browsing, virus protection, etc.)

## ARABIC VERSION

### السلوكيات المعلوماتية المتعلقة بالانترنت لدى الصحفيين العاملين في الصحف الكويتية

#### اليومية

مقابلة عن طريق البريد الالكتروني

شكرا على قبولكم المشاركة في هذه الدراسة. يرجى التكرم بالاجابة على الاسئلة التالية حيث ان آراءكم مهمة وستلقى الاهتمام المناسب في النتائج النهائية للدراسة (الباحث: عبدالناصر عبدالله الشطي)

1. هل تعتقد بان الانترنت وتقنيات المعلومات تشجع المرأة على العمل في مجال الصحافة؟ لماذا؟  
2. يرجى وصف موقف حدث لك وكان فيه للانترنت دورا كبيرا وبارزا في بلورة وتجهيز خبر او مادة صحافية.

3. هل تشجع عملية تعديل المناهج التعليمية الحالية في الكويت من اجل تحسين السلوكيات المعلوماتية المتعلقة بالانترنت لدى الصحفيين؟ لماذا؟ وما هي التعديلات التي تقترحها؟  
4. ماذا يجب ان يكون محل تركيز الدورات التدريبية وورش العمل من اجل رفع مقدرات الصحفيين في التعامل مع الانترنت ولماذا؟

5. هل تعتقد بان تطوير انظمة او برامج مخصصة لاحتياجات الصحفيين قد يؤدي الى تحسن السلوك المعلوماتي المتعلق بالانترنت؟ ما هي مكونات مثل هذه البرامج او الانظمة (مثلا قدرات البريد الالكتروني او التصفح او الحماية من الفيروسات الخ)؟

## APPENDIX E

### NEWSPAPERS AND INTERNET IN KUWAIT

#### Newspapers

Kuwait's experience with the printed press can be traced back to 1928, when AbdulAziz Al-Rasheed established *Majalat Al-Kuwait* (Kuwait Magazine) (Abdullah, 1986; Ayalon, 1995). It was a monthly magazine that covered religion, history, literature, linguistics, and morality (Meleji, 1982). The magazine was the first of its kind in the Gulf region. However, due to lack of financing, and the difficulties in transporting the publication from Egypt, where it was printed, to Kuwait, the magazine was stopped after two years.

That initial experience was expanded in December of 1946 when Kuwaiti students studying in Egypt established *Majalat Al-Be'tha* (Delegation Magazine). Despite its humble beginning, the students managed to keep the magazine going for more than seven years. During that period, many magazines, such as *Kathma*, *Al-Sha'ab*, *Al-Fajer*, *Al-Basheer*, *Al-Eman*, *Al-Raed*, and *Al-Kuwait*, were established but none of them found enough support to keep them in print.

However, as Kuwait started gaining large profits from oil exportation, the society started evolving and developing at a fast pace. This development yielded the establishment of Kuwait's first newspaper in April of 1961- *Al-Rai Al-Aam* (Public Opinion). This was followed by *Al-Watan* (The Homeland) in 1962, *Kuwait Times* in 1963, *Al-Seyassah* (Politics) in 1965, *Al-Qabas*

(The Beacon) in 1972, *Al-Anbaa* (The News) in 1976, and *Arab Times* in 1977 (Abdullah, 1986; Smalley, 2005). The rapid evolution of the Kuwaiti society was paralleled by a similar evolution in the printed press. By the 1980s, Kuwait hosted more than 36 magazines and newspapers, with a number of these publications, such as *Al-Arabi* (Pioneer) magazine, being popular not only locally, but in the region as a whole (Kazan, 1994). Although many of these publications ceased from publishing, new magazines continue to appear constantly. However, since the establishment of the *Arab Times*, the government stopped issuing licenses for new daily newspapers. Despite that hurdle, a new law is currently being discussed which allows for new daily newspaper licenses.

Kuwait's political evolution was also occurring during the 1940s and 1950s, culminating in the establishment of a National Assembly in 1963 (Ministry of Communications, 2001). Kuwait's constitution also went into effect that same year. The 1960s witnessed a qualitative and quantitative growth in newspapers, as the "dailies started to appear with a high level of sophistication and a wide spectrum of orientations," (Kazan, 1994).

The constitution's creators, aware of the rapid developments occurring at the time, did not overlook the press, and addressed it in article 37, which states "Freedom of the press, printing, and publishing is guaranteed in accordance with the conditions and manner specified by law." (Kuwait, 1962) The freedom of the press, guaranteed by the constitution, created one of the freest media in the Middle East. Reporters Without Borders (Reporters Without Borders, 2004) stated in a report that "Kuwait, along with Lebanon, is one of the most relaxed Arab countries about press freedom." This was previously reflected by Rugh (1987), who classified the Arab media into three systems: the mobilization press, the loyalist press, and the diverse press. The Kuwaiti press, along with the Lebanese and Moroccan, were classified in the diverse press

“because its most significant distinguishing characteristic is that the newspapers are clearly different from each other in content and apparent political tendency as well as in style,” (Rugh, 1987). This diversity is attributed to political openness, private ownership of newspapers, and the ruling regime’s acceptance of the media (Rugh, 1987). Kazan (1994) attributed the diversity and development of media in Kuwait to "diversified and pluralistic demographic structure and a higher level of popular political participation than the other Arab states."

Also, this diversity of the Kuwaiti press can be attributed to the large number of expatriates working in the media (Anwar, Al-Ansari, Abdullah, 2004). This diverse workforce reflects positively on the editorial policies and coverage of newspapers. However, males dominate the profession by a ratio of 9 to 1 (Al-Rasheed, 1998; Anwar, Al-Ansari & Abdullah, 2004). The average age of a journalist in Kuwait is under 35 years old, and more than 50 percent of them hold a university degree (Al-Rasheed, 1998). However, of the university degree holders, less than 20 percent of them studied journalism (Al-Rasheed, 1998). This can be a positive addition to the Kuwaiti media as it adds to its diversity. However, it can also be a negative point acting as an obstacle towards achieving a truly professional workforce that is dedicated to the field of journalism. Other obstacles facing the evolution of the Kuwaiti media include the lack of training, and the dependence on part-time employment. This part-time employment could be due to the low salaries paid by employers, as Al-Rasheed (1998) found that more than 80 percent of journalists in Kuwait are paid less than 600 Kuwaiti Dinars (\$2000) per month.

A turning point for the Kuwaiti media, occurred after the liberation of Kuwait in 1991. Editorial policies started reflecting more sympathy towards the West, and less towards the previously favored pan-Arab issues. The invasion transformed the press in many ways, as newspapers became focused on local news, opinion, and criticism of governmental decisions

(Al-Rasheed, 1998). Further, the Kuwaiti press witnessed the publication of three new dailies over the period of the Iraqi invasion. *Sawt Al-Kuwait* (Voice of Kuwait) and *New Arabia* were published by the Kuwaiti government in exile and did not circulate in Kuwait until after the liberation in 1991. *Al-Fajr Al-Jadeed* (New Dawn) was launched in March of 1991. However, none of the three government-owned newspapers managed to survive, mainly due to competition from the other dailies (Kazan, 1994).

## **Style & Coverage**

The newspapers in Kuwait provide similar coverage that includes local, regional and international news, economy, sports, entertainment, law and security, arts and culture, health, women's issues, obituaries, education, and more. Sometimes coverage is provided for specific areas on a weekly basis such as technology pages, general complaints from the public, religion, automobiles, and others. Also, newspapers produce daily and weekly supplements covering specific events, such as the football world cup, or a major news event. Further, *Al-Qabas* occasionally gives its subscribers a new book every month. Promotions for subscriptions are frequent, with newspapers offering new subscribers a chance to win valuable prizes such as cars, money, and more.

All seven daily newspapers are printed on broadsheet papers, with their sizes being identical. The number of pages differs depending on the news cycle, but an average of 65 pages is expected on a daily basis. The number of pages declines during the weekend days on Thursday and Friday because of the slowing news cycle in the Middle East in general due to the weekend.

Further, all the daily newspapers host electronic versions except *Al-Anbaa*. The electronic versions, despite being a sign of progress, are only carbon copies of the print editions of each newspaper. Online journalism has yet to take effect on Kuwait's newspapers. The styles of the newspapers are also similar. The front-page is anchored by a large masthead displaying the newspaper's name. The date, in Arabic and English, are printed under the masthead. The rest of the front page is occupied by large headlines of the news of the day. The last page of each newspaper has been traditionally reserved for light, or odd, news. That is also where the obituary section exists, and the daily caricature.

Overall, that similarity in style and coverage between newspapers has created fierce competition between them in order to attract new subscribers. The newspapers' main income comes from advertising. However, a strong subscription rate assists in attracting new advertisers. It is rare that a Kuwaiti house, or organization, does not have a subscription to a daily newspaper.

# السياسة

## تساءل، لماذا تختفي الدراسات والأرقام التي تلوح بها الحكومة عندما تقدم المساعدات للدول؟ البراك للصالح: لا تكن جسراً لتحقيق أهداف الشطي والحميضي

عكاش - وزير الدولة لمجلس الأمة تعدى على الصحابة بتوزيعه، والصحيفة السجادية،

الخرافي، إذا صدقت النوايا فإننا سنعمل برحيل معاريف الفساد  
**العمل الوطني، لا نشكك في نوايا الحكومة**  
**لكننا نريد وقفة جادة في مواجهة الفساد**

العنزي، مستشارون يحذرون من الفساد بعض الحكومات في بلدية الكويت

البراك للصالح: لا تكن جسراً لتحقيق أهداف الشطي والحميضي  
 وزير الدولة لمجلس الأمة عدداً من الدراسات والأرقام التي تلوح بها الحكومة عندما تقدم المساعدات للدول؟

### بيت التمويل الكويتي

نتائج الربع الثالث من عام 2006

## 264.498 مليون دينار

%	2006/9/30	2005/9/30	إجمالي الأصول "مليارات دينار"
40	4,079	3,704	إجمالي القروض "مليارات دينار"
22	2,893	3,522	إجمالي الودائع "مليارات دينار"
47	179,528	284,498	الأرباح الصافية "مليارات دينار"
34	93,020	124,067	رصيدية المستثمرين "مليارات دينار"
13	7%	10%	

مقارنة ربعي السنة الأولى من 2006/9/1 والسنة نفسها خلال 2005

بيت التمويل الكويتي  
 Kuwait Finance House

القطر وسفراء الإمارات الجراح بما العريضة  
**حمود العنزي عن تقرير أزمة الكهرباء، فضيحة وتعمد التهرب بعض المسؤولين**

ميدان صالح الترميح ومشروع دولي لفرض عقوبات جديدة  
**فيتو دبلوماسي روسي - صيني أوقف قرار الحرب على كوريا الشمالية**



التخليق بان كي مون  
**أينما حللنا ما مؤلفنا**

التحسيس 20 من أبناء الشهداء  
**واسلحهم، شهداء الجهاد**

Figure 1 Front-page of Al-Seyassah newspaper for 10/14/2006 (Arabic)

## **Al-Rai Al-Aam (Public Opinion)**

Although it started as a weekly newspaper for almost one year, *Al-Rai Al-Aam* became the first Arabic-language daily newspaper in Kuwait (Abdullah, 1986). Its first issue was published on the 16<sup>th</sup> of April, 1961. The newspaper was suspended from publishing, and fined, on several occasions due to its editorials and caricatures. Published by *Dar Al-Jazeera Press, Printing & Publishing Co.*, the newspaper's estimated circulation is 88,000 (Smalley, 2005), making it the most popular newspaper currently in Kuwait. The newspaper maintains an electronic website ([www.alraialaam.com](http://www.alraialaam.com)) that is ranked 7,209 in overall web traffic by Alexa Internet, Inc. Also, 150 websites link to the newspaper's website, according to Alexa. The newspaper established its website in August, 1999, and online users can retrieve electronic copies of the newspaper dating back to June, 2004. No search engine is available.

Rugh (1987) described the newspaper's attitude as supportive of the Al-Sabah ruling family, critical of public figures who opposed communism and Arab socialism, and critical of American policies in the Middle East. However, as a result of the Iraqi invasion of 1990, the media in Kuwait became supportive of America and the West, and less concerned with Arab socialism, and other Pan-Arab issues.

## **Al-Watan (The Homeland)**

The second Arabic-language daily newspaper in Kuwait published its first issue on the 5<sup>th</sup> of June, 1962. Similar to *Al-Rai Al-Aam*, the newspaper started out as a weekly, and transformed into a daily after it was bought by Mohammed Musaed Al-Saleh, one of the main contributors to

*Majalat Al-Betha* (Abdullah, 1986). The newspaper is published by Dar *Al-Watan* Press, Publishing & Printing, and its circulation is claimed to be 70,000 (Smalley, 2005). It has a website (<http://www.alwatan.com.kw>) that is ranked 4,960 in terms of overall traffic on the web by Alexa. The newspaper also has 196 websites linking to its website. *Al-Watan* allows online users to retrieve electronic versions dating back to July, 2001. A search engine is provided but is not helpful.

Rugh (1987) described *Al-Watan* as an outspoken newspaper that advocated "democratic concepts including free speech and the free exchange of ideas." Rugh (1987) also noted that *Al-Watan*, on many occasions, was "critical of the Kuwaiti government." This description by Rugh does not hold true today, as the ownership of the newspaper was transferred to a member of the ruling family. The newspaper has become an invisible propaganda tool serving the needs of government and top officials. Kazan (1994) described *Al-Watan*, along with *Al-Qabas*, as the most liberal while *Al-Seyassah* was the most conservative.

## **Kuwait Times**

The first non-Arabic language daily newspaper in Kuwait started publishing on the 8<sup>th</sup> of July, 1963. *Kuwait Times* published in English with frequent supplements in Urdu, Malayalam, and Tagalog (Abdullah, 1986). Published by *Kuwait Times Publishing House*, the newspaper estimated its circulation to be around 32,000 daily newspapers (Smalley, 2005). *Kuwait Times* maintains a website ([www.kuwaittimes.net](http://www.kuwaittimes.net)) that is ranked 271,039 in terms of overall traffic on the web by Alexa. Sixty-eight other websites are linked to the newspaper's website, which has

been online since June 2001. The website allows online users to retrieve news dated back to November, 2005. However, no search capabilities are provided.

The newspaper presents a "moderate, liberal point of view," with a strong emphasis on non-Arab affairs (Rugh, 1987). At a time of great instability in the Middle East, Yousuf Saleh Alyan, founder of *Kuwait Times*, thought that an English newspaper was an effective mechanism to bridge the "communication" gap between Kuwait and the rest of the world by "explaining the monumental changes taking place in the world and bolstering Kuwait's image abroad," (Kuwait Times, 2006).

## **Al-Seyassah (Politics)**

This newspaper also started as a weekly when its first issue appeared on the 3rd of June, 1965 (Abdullah, 1986). Nearly three years later, on the 8<sup>th</sup> of April, 1968, it transformed into a daily newspaper. Published by *Dar Al-Seyassah for Publishing and Advertising*, the newspaper estimated its circulation to be around 42,000 (Smalley, 2005). Similar to its counterparts, *Al-Seyassah* maintains a website ([www.alseyassah.com](http://www.alseyassah.com)) that is ranked 4,769 in terms of overall traffic on the web by Alexa, making it the most popular Kuwaiti daily newspaper online. Also, 218 websites link to the newspaper's site, which has been online since March, 2002. The number of links to the website is the highest among Kuwaiti online newspaper. In its online version, the newspaper maintains complete copies of its paper version in portable document format (pdf) dating back to April, 2004. These pdf versions are available to online users for free. However, the site does not maintain a search engine, making it difficult to find information in a timely manner.

*Al-Seyassah's* editorial policies are more liberal and diverse in comparison to the other newspapers (Rugh, 1987). Also, the newspaper advocates "moderate courses of action, treating issues in a less emotional fashion," (Rugh, 1987).

### **Al-Qabas (The Beacon)**

Its first issue was published on the 22<sup>nd</sup> of February, 1972. Published by *Al-Qabas Press*, the newspaper estimated its circulation to be around 65,000 (Smalley, 2005). *Al-Qabas* maintains a website ([www.alqabas.com.kw](http://www.alqabas.com.kw)) that is ranked 9,099 in terms of overall traffic on the web by Alexa. Eighty-eight websites link to the newspaper's site. Also, the newspaper maintains complete copies of its paper version in pdf format dating back to 7 days only. These files are available to online users for free. The website also provides a search engine. However, it is very complicated to use, and is a hindrance rather than help. Labeled as the most successful newspaper in Kuwait, *Al-Qabas* seeks to satisfy all the different Kuwaiti sects (Rugh, 1987). Its orientation is driven by free enterprise capitalism, political objectivity, and nationalism (Rugh, 1987). However, similar to *Al-Watan*, *Al-Qabas* is partly owned by members of the ruling family (Gidron, 1993).

### **Al-Anbaa (The News)**

Its first issue came to light on the 5<sup>th</sup> of January, 1976, increasing the number of Arabic-language daily newspaper in Kuwait to five (Abdullah, 1986). The newspaper is published by *Dar Al-Kuwait Press*, and has yet to create an online website.

*Al-Anbaa*, the youngest of the Arabic dailies in Kuwait, is a strong "advocate of capitalism and Arab family traditions, and it has been an outspoken critic of governmental policy," (Rugh, 1987).

## **Arab Times**

This newspaper became the second non-Arabic language daily newspaper in Kuwait. Its main publishing language is English, in addition to frequent supplements in Urdu and other languages. Its first issue was published in February, 1977, and is an affiliate of *Al-Seyassah* newspaper. The newspaper estimated its circulation to be around 35,000 (Smalley, 2005). The newspaper maintains a website (<http://www.arabtimesonline.com/arabtimes/>) that is ranked equally with *Al-Seyassah*, as both newspapers share the same server. Rugh (1987) described the *Arab Times* as liberal newspaper focusing on regional news. Its lively style made the newspaper one of the most popular non-Arabic publications in Kuwait (Rugh, 1987).

## **Internet in Kuwait**

Since the commercialization of the Internet in the beginning of the 1990s, Kuwait embarked on a national campaign to make the most, and best, use of the medium. Due to the fact that Kuwait was spending billions of dollars to rebuild the country after the devastation suffered from the Iraqi invasion of 1990, the Internet was integrated into the rebuilding process, resulting in the assembly of a "highly networked and dependable communications infrastructure," (Wheeler, 2000). In 1992, Kuwait became the first country in the region to provide free Internet access to

all students and faculty in Kuwait University, the only university in the country at the time (Wheeler, 1998). This free access assisted greatly in the adoption, and spread, of the Internet in Kuwait. Soon after, Kuwait was host to more than half of the Internet sites in the Persian Gulf (Burkhart, 1998). Further, this growth was encouraged by low prices for Internet access. Kuwait provided Internet access for less than \$20 a month, the cheapest amongst all Arab countries (Aladwani, 2003). Also, Kuwait is one of the rare countries in the Middle East where Internet censorship is minimal. Censorship is limited to pornographic and gambling sites.

Kuwait currently has three Internet Service Providers- Gulfnet/KEMS, Qualitynet, and Fast Telecommunications. Also, there are 13 sub-ISPs, providing pre-paid Internet access, in addition to more than 150 Internet cafés (Economic and Social Commission for Western Asia, 2003). The ISPs serve the needs of more than 567, 000 users, or 4.22 percent of the total population (Al-Shimmari, 2005). Today, users in Kuwait have a variety of options for connecting to the Internet. These include purchasing pre-paid Internet cards that provide access for a pre-defined amount of hours or days (\$1 for 7 hours up to \$16 for one month of unlimited access), and subscribing to dial-up (\$29/month). Also, users can subscribe to an Asymmetric Digital Subscriber Line, which offers connection speeds ranging from 64 kilobits per second (\$50/month) up to 2 megabits per second (\$900/month). Wireless connection cards and Internet connections using satellite dish are also available. New developments in the area of Internet connections include the installation of wireless access points at popular locations, and the availability of Internet connections using mobile phones, as provided by the mobile companies in Kuwait.

Internet usage in Kuwait has grown more than 278 percent over the past five years, with Kuwait accounting for 3 percent of the total Internet users in the Middle East, estimated at 25

million users (Al-Shimmari, 2005). This growth rate is expected to continue as the government forges ahead with its plans to create an information society, and continues promoting Internet adoption. The government, which is mainly responsible for the introduction and spread of the Internet in Kuwait (Wheeler, 2001), launched its electronic government (e-government) initiative in 2000. Since then, the initiative yielded websites to most governmental ministries and organizations, online access to government databases, and a growing number of electronic services (Central Technical Body, 2006).

As the e-government initiative evolved, the Kuwaiti government introduced the national document for building an information society in Kuwait (Al-Shimmari, 2005). This latest initiative sets long-term strategic goals to assist in building an information society, including building and developing information technology infrastructure, its applications and services, working internationally towards bridging the digital divide, and developing regional cooperation on issues of importance such as education and training in the information technology sector. The ultimate goal is to increase productivity in all sectors of society by providing quick access to information (Al-Shimmari, 2005).

This included the media, where the national document calls for a media policy that is based on transparency and openness (Al-Shimmari, 2005). It further calls for implementing training programs to educate the public on information technologies, and enhancing educational curriculums at all levels. Also, the document emphasized the importance of launching a media campaign to increase awareness about information technologies. This emphasis reflects on the skills of media personnel in interacting with information technologies, and their ability to be effective participants in the proposed media campaign.

Despite the slow speed of implementing the previously mentioned initiatives due to bureaucracy and other factors, Kuwait is set to become one of the leading countries in the Middle East in improving its society using the latest information technologies. This adds to the importance of this study that will positively assist in improving the current situation.

## **APPENDIX F**

### **DEFINITIONS**

The following definitions will be adopted throughout this study:

- **Print journalist-** An individual who collects, writes, edits, and presents news articles in a newspaper. The individual is also responsible for verifying and analyzing information as objectively as possible.
- **Internet-related information behaviors-** A reference to behaviors when interacting with the Internet in terms of information. This includes seeking, evaluating, organizing, and retrieving information from the Internet.
- **Information-** For the purposes of this study, information will be used in a broad sense to cover data, including statistics, and any message that has a meaning to its receiver within the set context.
- **Internet-** Gralla's (2004) definition of the Internet will be used for this study. It stated that Internet is "a collection of thousands of individual networks and organizations ... each network cooperates with other networks to direct Internet traffic so that information can pass among them." Also, the following definition is broadly applied- "The Internet is at once a world-wide broadcasting capability, a mechanism for information dissemination, and a medium for collaboration and interaction between individuals and their computers without regard for geographic location," (Leiner et al., 2003).

- Internet Applications- Any program, database, tool, service, etc., that requires access to the Internet in order to be used. These include websites, electronic mail, file transfer protocol, search engines, listservs™, journals, online databases, telnet, etc.
- Liberal- When used to describe newspapers or journalists or the media in general, liberal is meant to reflect bold actions that are regarded as untraditional in terms of opinion, coverage, and style. A liberal newspaper is one that expresses opinions that are regarded as taboo by other newspapers, and society in general. Also, a liberal newspaper is one that takes new, broad- and open-minded stances on issues.

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