

Trends in Internet Usage and its Social Effects in Saudi Arabia

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The rapid evolution of any technology naturally raises questions about both its potential benefits and possible negative consequences. Thus, the Internet may have positive and negative impact on various aspects of our life, as it the fastest growing electronic technology. To analyze its effect, there have been several studies and surveys on the usage of Internet and its effect on individuals, societies, education and businesses. With respect to social effects, it is a controversial topic whether it is a boon or a bane to the society, especially in Saudi Arabia where use of Internet is in its initial stages. To find answers to these questions, a survey was conducted using a web-based online questionnaire. Survey research is usually considered an appropriate technique when information can be collected from different sources to formulate specific questions. For the survey process, the sampling frame used was the population of Internet users in Saudi Arabia. Thus online questionnaire is a natural choice for the sampling frame. The results obtained from this questionnaire address some basic questions like ‘who is using Internet in Saudi Arabia?’ and ‘what users do online’? Also, Internet access and its use, barriers to using the Internet and the views about Internet, social and psychological impact of Internet on the population with privacy and security concerns are also reported. The results (of almost 4,400 respondents) also relate trends of Internet usage & its social effects. Issues such as digital divide, gender concern, and socialization effects of Internet on Saudi society are also discussed. Trends related to Internet usage are analyzed, followed by those related to the social aspects. These results surface-out the various usage patterns and effect of Internet on the Saudi society.

Introduction

Internet has a profound effect on various aspects of our life. Its effects can be compared to that of other inventions like telephone and television, which came into existence in the earlier part of the century. The rapid evolution of any technology naturally raises questions about both its potential benefits and possible negative consequences. This is especially true of the Internet that has become the fastest growing electronic technology in the world history. It is providing a new medium of information, entertainment and socialization. However, just like any other technology, the development of Internet brings potential problems as well. The great danger is that, as new technologies develop, our society could become divided between the ‘information rich’ and the ‘information poor’. This is what is known as “digital-divide”. Related issues include questions about children and access to on-line material, potential on-line threats to personal privacy, the effects of the Internet on family involvement and social organizations, gender differences in use and access, credit card security, and the effects of on-line sales on traditional retailing¹.

There have been studies and surveys on the Internet’s use and its effect on individuals, societies, education and businesses. Most of these studies are localized for a particular region, which is understandable, as the complete study or survey for all regions is a huge undertaking. Such a study for any region requires understanding of issues that are specific to that region’s culture, traditions, etc. During our literature survey we encountered many such studies that eventually shaped our questionnaire and subsequent result analysis^{1,2}. After the introduction of Internet in Saudi Arabia, there was a need to conduct such a study (Use and Effect of Internet in Saudi Arabia) that can eventually help in correlating a large number of factors involved. This is first of its kind in Saudi Arabia. We hope that this study will help in future decision making for introducing new services, extending infrastructure and related issues.

In Saudi Arabia, public access to Internet was allowed in April 1997. After a slow initial start, Internet subscription and use increased rapidly. The estimated number of Internet users in April 2001 was 690,000, which rose to 900,000 users in December 2001. The latest figure shows that there are approximately 1.1 million users in Saudi Arabia (July 2002).³

In order to comprehend the effects of Internet usage in Saudi Arabia, King Abdulaziz City of Science and Technology (KACST) decided to fund a study that will explore the use of Internet along three major topics: social uses and effects of Internet in society, implications of the Internet technology for education, and business uses of the Internet. Exploring these three major topics results in the identification of few more topics of study, which can also be investigated through this study. These topics are: the availability of Arabic content on the Internet and the prospects of distance learning in Saudi Arabia. For these purposes, a web-based on-line questionnaire is used to analyze the trends and responses. In this paper we have reported our findings for social effects of Internet usage in Saudi Arabia.

This paper presents results of two years of study, data collection and its analysis. We report our findings about the Internet users in Saudi Arabia, gender effects on use and Internet use on social life of users and education.

This paper is organized as follows. Section 2 briefly describes our research methodology. Section 3 presents the results, trends and their analysis followed by a section on conclusion.

Research Methodology

Our research is to conduct a Web based survey and its eventual analysis. This goal is usually best achieved by creating a questionnaire and collecting its responses for analysis. Surveys have a broad appeal and are perceived as a reflection of the attitudes, preferences, and opinions of the people. In our case, it will be used to measure (in a sense) the “Use and Effect of Internet in Saudi Arabia”. Eventually this measure will provide the positive or negative impact the Internet has had on the society.

Survey research is usually considered an appropriate technique when enough general information is known or can be collected from different sources to formulate specific questions. This is essentially true for the Internet. Since the Internet was publicly introduced in Saudi Arabia, there was a need to carry out such study and survey to evaluate its use and effect in Saudi Arabia.

For our purposes the sampling frame is the population of Internet users in Saudi Arabia. This *target population* can be divided into three (although overlapping) categories: ordinary users, users directly related to education (students and instructors), and business users (both buyers and sellers). Each is expected to provide an important insight and information for decision-making and further research. Correctly determining the target population is critical – the right mix of respondents is necessary to meet the objectives. Efforts were made in this regard to advertise the questionnaire in the three categories outlined above. Sample size is also important. Initially it was estimated that 1000 responses should be a good sample size out of 700,000 Internet users. The larger the sample, the more precisely it reflects the target population. However, the rate of improvement in the precision decreases as the sample size increases.

Results of our study

In this section we report the results of our study. We will try to answer questions such as who is using Internet in Saudi Arabia? Also Internet access and its use, barriers to using the Internet and the views about Internet are also reported. We will see the social and psychological impact of Internet on the population with privacy and security concerns. Views of Saudi Internet users concerning the availability of Arabic language content and search facilities are also analyzed.

Who is using Internet in Saudi Arabia?

Young generation in the age group 16 to 25 is likely to use the Internet. Almost 80% of the respondents were in the age group of 16 to 35 years. Men are more likely to have access to Internet than the women. Almost 85% of the respondents were men. This is attributed to the fact that men have better opportunities and access to Internet facilities like access from office and Cyber Cafes than the women.

Majority of the Internet users are college (38%) and high school (27%) graduates. This is due to the fact that the in general majority of the population falls within these two educational levels. Internet users in the Kingdom are concentrated in major cities. Almost 80% of the respondents

live in major cities of the country while little over 4% live in rural areas. This concentration of the Internet users in cities is due to the easier availability of Internet access facilities and higher education level of main city inhabitants.

Almost 51% of the respondents or their spouses pay for the Internet connection and 40% access it from their educational institutes. Gender affects the mode of payment for Internet access. For female users a large percentage (28) of parents pay the bill for Internet access. The remaining break down of payment mode for female users is as following: spouse or self (36%) and educational institute (25%). In case of male users only 17% of parents pay the bill. Generally they pay it themselves (57%) or educational institutes provide them with the access (36%). From these figures it is clear that number of male using the Internet from their educational institutes is around 10% higher than the corresponding number of female users.

Majority of the regular users access the Internet from their homes. When we compare the place from where the Internet is accessed for the daily uses, 56% of the respondents' access it from home while 44% from their work or educational place. Very few regular users (2.9%) prefer public Internet facilities like libraries and cafes. A large number of occasional users prefer public facilities. The gender of the user slightly affects the place of Internet access. The behavior of both sexes is almost identical when it comes to Internet access from home. However, male users have frequent opportunities to use the Internet in educational institutes than the female users. This trend is also seen in case of other public facilities like Internet Cafes and libraries. Figures 1 show these behaviors.

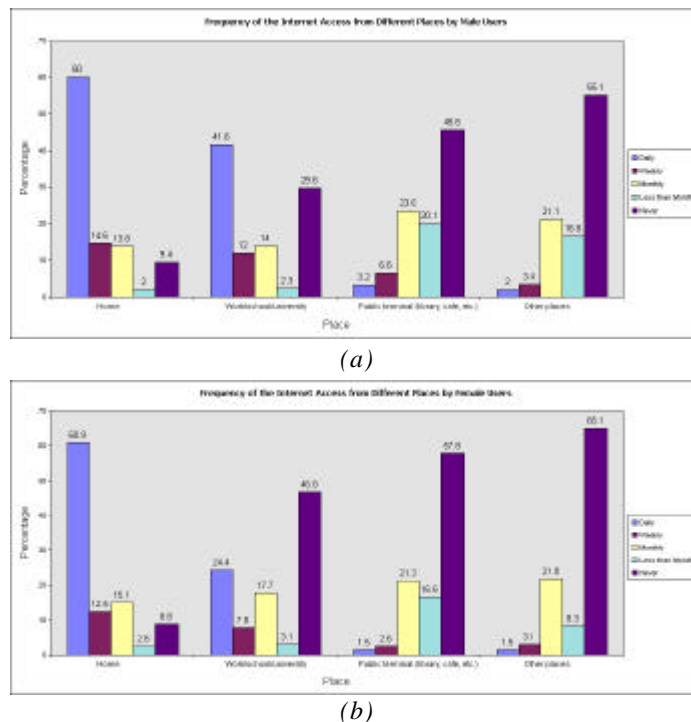


Figure 1: Effect of Internet access from different places (a) Male users (b) Female users

Majority of the users are new to the Internet. Our survey also confirms this fact. Almost 3 quarters respondents are using the Internet for less than 6 years. Around 20% respondents have been on-line for less than a year.

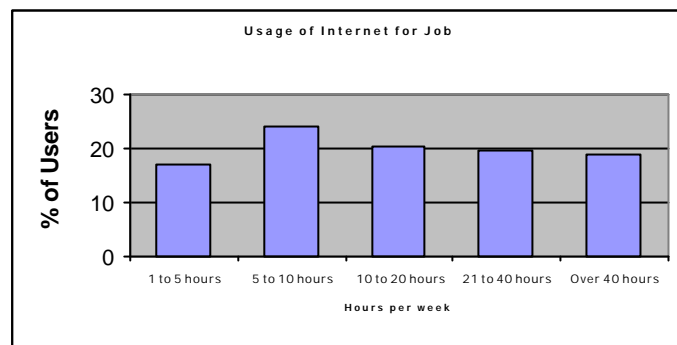
What users do on-line?

Accessing news is the single most sought after regular activity. Almost 43% of the respondents daily review news. In terms of on-line search, majority of the users prefer to search for computer software and hardware information. On-line chat is the third most sought-after use of the Internet followed by using on-line telephone calls and listening to radio broadcast.

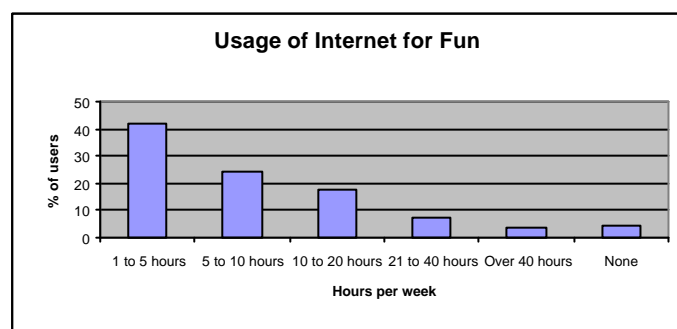
In case of multi-media on-line services, streaming audio (47%) and Internet phone (45.4%) are most popular services, followed by Usenet, listserv and discussion forums (41%).

In terms of other Internet related activities, such as number of e-mail accounts, search engines used etc., it was found that little over three-fourths of the respondents have more than one e-mail account. Web-based access is the most favorite form of e-mail access (41%). Almost two third respondents prefer Yahoo as a search engine (65%).

Usage of Internet can be characterized in terms of work or for fun. The usage of Internet for work is evenly distributed between different time segments per week (Figure 2a). However, almost 40% of users use the Internet for only 1 to 5 hours per week for fun and entertainment (Figure 2b).



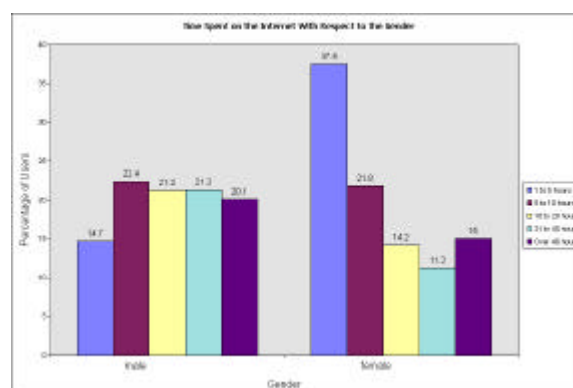
(a)



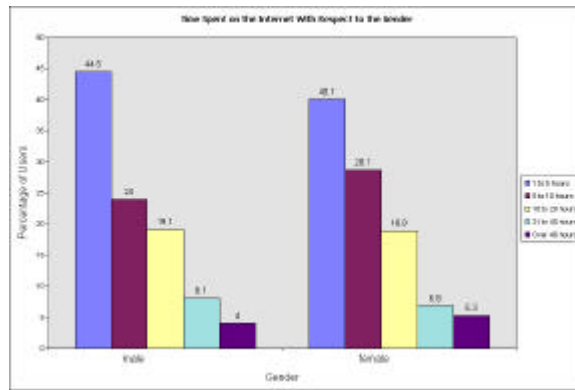
(b)

Figure 2: Usage of Internet (a) for work (b) for fun

Women spend less time on-line for work related activities than men. Around 62% women spent more than 5 hours per week. The number of men spending the same amount of time on-line is 85%. Figure 3a compares the effects of gender on the usage of Internet for work.



(a)



(b)

Figure 3: Usage of Internet (a) for work (b) fun with respect to the gender of the user.

Figure 3b shows the time spent per week by both the sexes on the Internet for fun and play. Although the general trend is same for both sexes i.e., majority of the users spend less time for fun and entertainment, however, the percentage of women spending more time (5 hours or more) on the Internet for fun is higher (60%) than the corresponding percentage of men (55%).

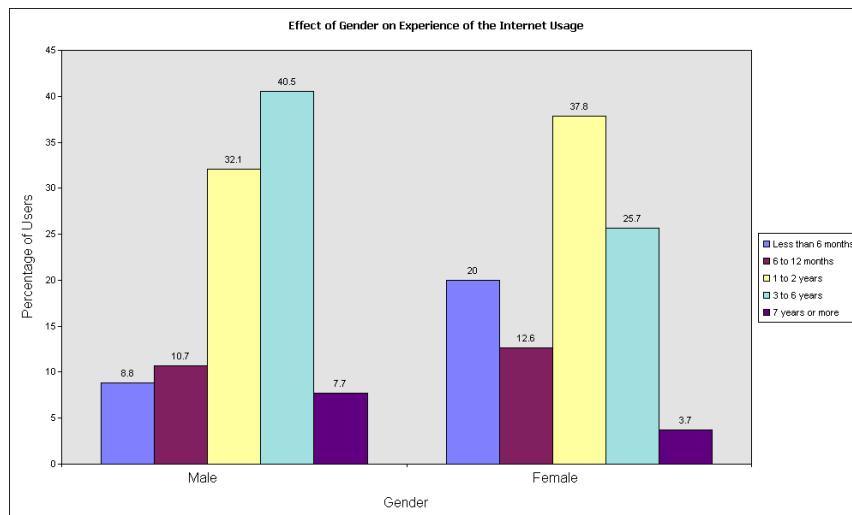


Figure 4: Relationship between gender and experience of Internet use

Males have dominated the Internet since its inception⁵. Even in the United States, there are gender differences in amount and types of computer use. Results from our study are also in line with the results of similar studies elsewhere. Male respondents are more experienced Internet users than female respondents. Figure 4 plots relationship between gender of user and experience of Internet.

What users think about Social Impact of Internet?

It was found that generally Internet is helping people to be more connected to like-minded people. Almost 67% of the respondents agree with this argument. Only 4% of the respondents feel otherwise.

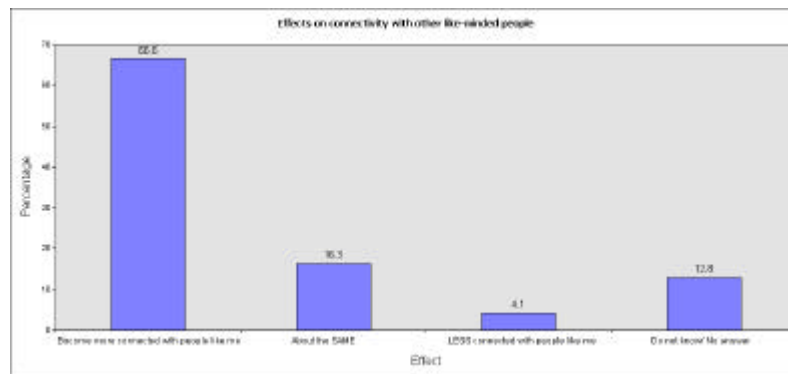


Figure 5: Effects on connectivity with other like-minded people

A large number of respondents consider that Internet has helped them to be more connected to their family members. Next they feel that Internet is helpful for connecting people with identical professions and hobbies. These conclusions are drawn from the analysis of the Figure 6 that shows different groups of people using Internet for connection.

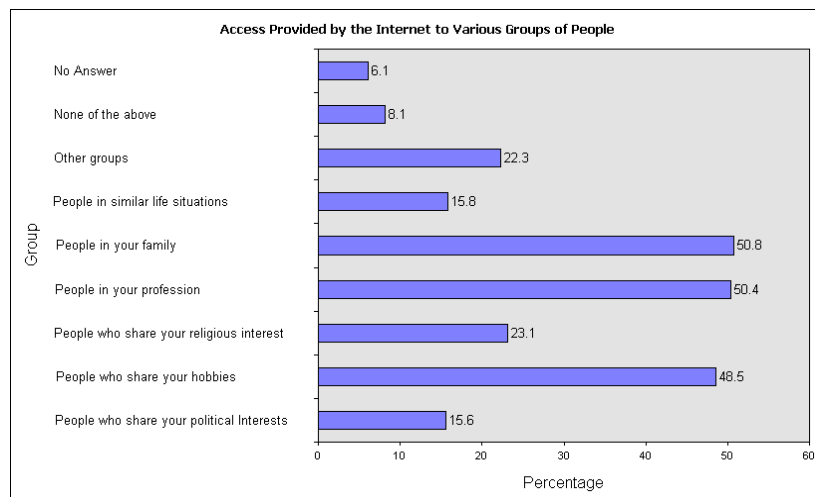


Figure 6: Access provided by the Internet to various groups of people

This kind of evidence shows that developments in information and communication technologies are not simply dehumanizing. They have the potential to bring about new social relations.

Internet usage has affected other social and personal patterns of behavior. Users sacrifice other activities for the sake of Internet use. The most adversely affected daily activity is watching TV. Almost 32% of the respondents feel that they prefer Internet use to watching TV. Reading books and talking on phone are other daily activities affected by the Internet use. Surprisingly a large number of respondents feel that they do not sacrifice playing cards (38.8%).

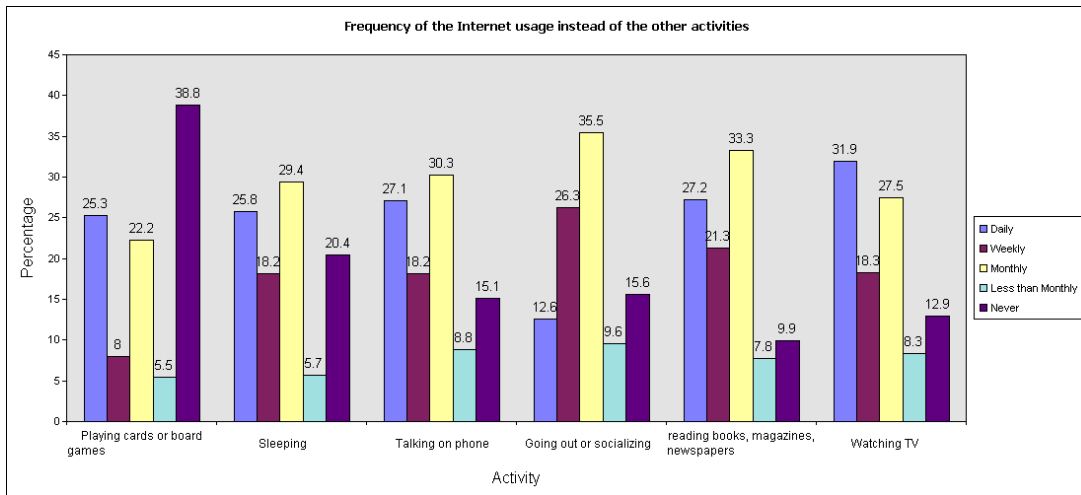


Figure 7: Internet usage instead of other activities

Next we analyze the effects of frequency of Internet usage on two social activities. These activities are watching television and reading books. The more time user spent on the Internet, he has to sacrifice other activities like watching television (Figure 8) or reading books and magazines (Figure 9). This conclusion is drawn from the fact that column for “never” option is decreasing for users who spent more time on-line.

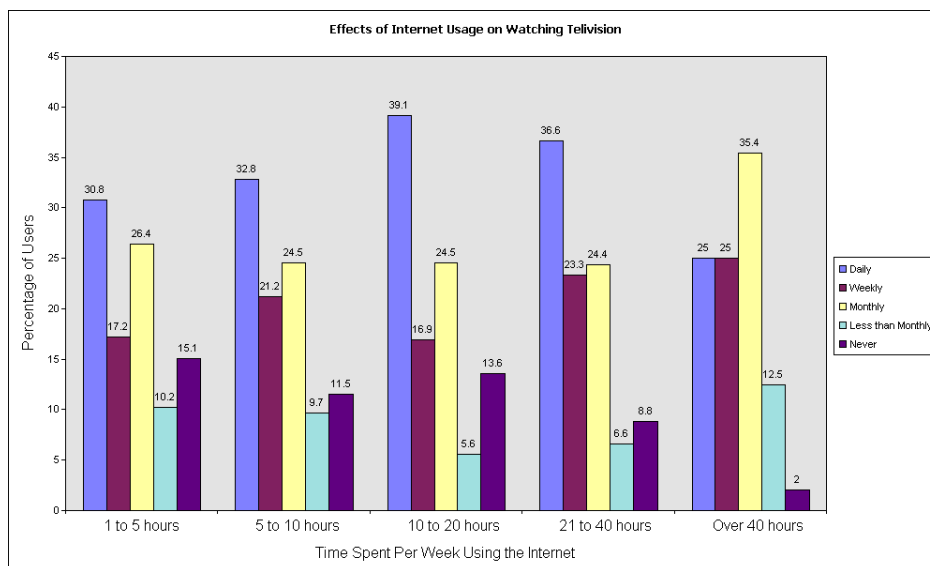


Figure 8: Effect of frequency of Internet usage on watching television

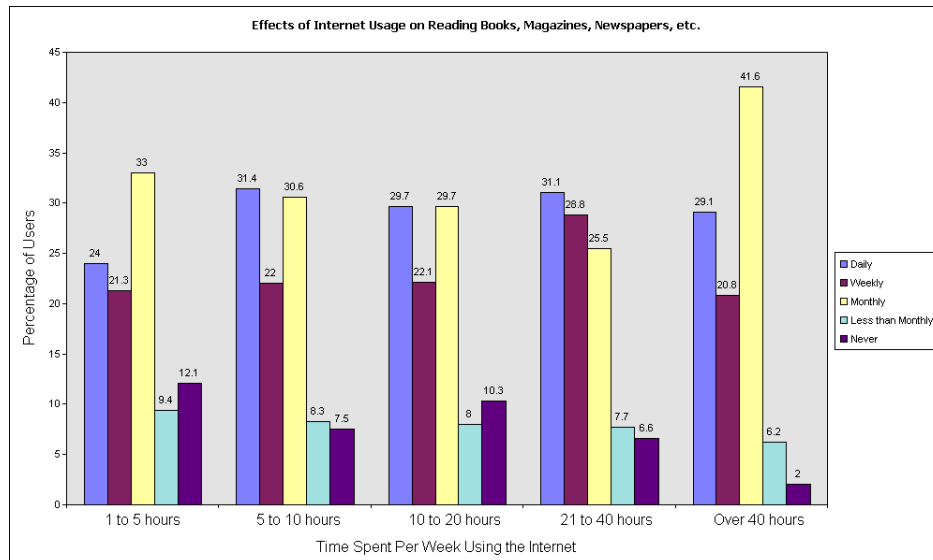


Figure 9: Effect of frequency of Internet usage on reading books and magazines

Majority of the respondents are seriously concerned about privacy of their information (64%) and almost two-third of the respondents want to hide their identity while visiting web sites.

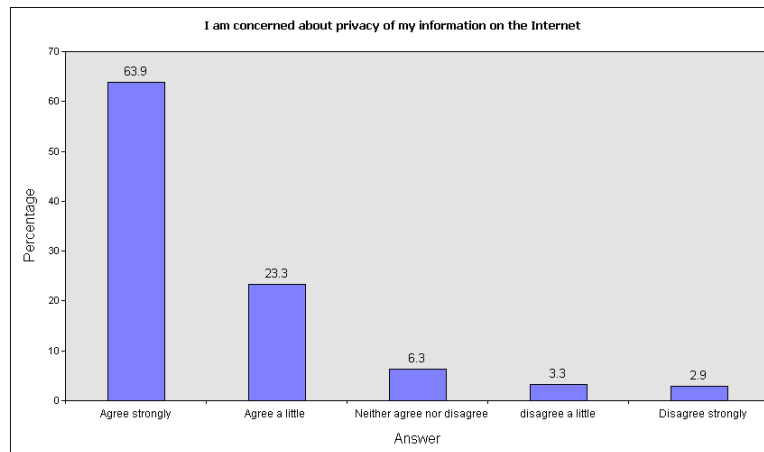


Figure 10: Concerns of privacy of information

The more experienced users are more concerned about the privacy of information. Figure 11 plots the relationship between the experience of users and their concerns for privacy.

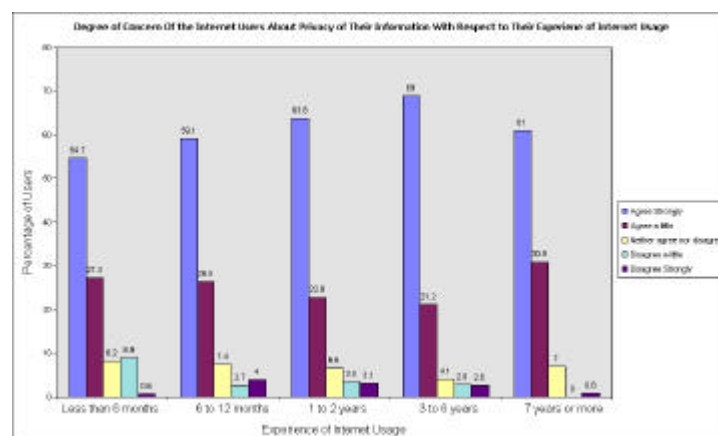


Figure 11: Effect of experience on the concerns of privacy

We measure the importance of various factors for the users of Internet. According to the responses we received, the highest number users give high importance to the Internet speed

(68%). Following this, users give importance to accuracy of information (61%), followed by privacy and security (50% each). Under the category of “not important”, censorship factor got the highest points (18%). Figure 12 plots these results.

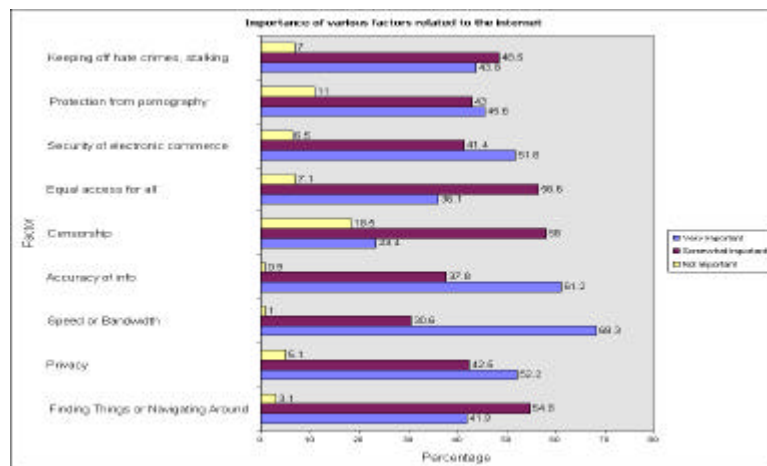


Figure 12: Importance of various factors

Conclusion

In this paper, we have presented our results of an on-line survey on the use and effect of Internet in Saudi Arabia. This study covers three major areas where Internet is influencing the Saudi society. These areas are social, education and business. In this paper we have covered the Internet use and experience, social aspects and effects on education. In Saudi Arabia, men are more likely to have access to Internet than the women. Majority of the Internet users are college and high school graduates and a large portion is concentrated in three major. Majority of the users pay the cost of the Internet connection and regular users access it from home. A large number of occasional users prefer public facilities. Majority of the Internet users in Saudi Arabia are new to this medium. More experienced users spend more time on-line than the new users. Men spend more time on-line for work related activities while women spend more time for fun related activities. This medium is helping people to be more connected to like-minded people, in particular family members, people in the same profession and people sharing similar hobbies. Internet use affects other social and personal patterns of behavior, in particular watching TV, reading books and talking on phone.

Acknowledgements

We thank King Abdulaziz City of Science & Technology (KACST) and King Fahd University of Petroleum & Minerals (KFUPM) for providing all the support for this study.

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