INFLUENCE OF GENDER ROLE ON INTERNET USAGE PATTERN AT HOME AMONG ACADEMICIANS

Komathi MUNUSAMY*

Maimunah ISMAIL**

Abstract

The paper examines gender differences in Internet usage pattern among male and female academicians. Internet usage pattern covers items such as knowledge and experience on the Internet, purpose of using Internet and frequency of using e-mail. The paper also examines the influence of gender role on Internet usage pattern. The data of this qualitative study were based on interviews with five academicians in a private university in Malaysia. The study shows that gender role to certain extent does influence Internet usage pattern at home. Women are seen to have more limitations compared to men to access to the Internet at any time due to family commitment.

Key Words: Gender role, Internet usage, Computers, Family life, Academicians

Introduction

In today's work environment there is a drastic change in the way how information are shared as well as networking and socializing take place in every society. No doubt that the Internet has become a powerful tool for communication purposes, to exchange ideas, and even used in participation in local, national and international networking.

The history of the Internet emerges back in 1960s when several computer scientists were hired by Pentagon to build a system to decentralize communication network. As a result the Arpanet was born. Over time the network grew rapidly to interconnect numerous universities, research centers as well as commercial organization. Thereafter, the word and use of the Internet expand globally. No doubt, with that, Internet usage continues to develop rapidly over the years and now millions are using the Internet (Colley and Matlby, 2008).

Malaysian government has been an enthusiastic supporter of Internet technology. With the launch of TM Net in 1995, the market for both commercial and residential Internet access has grown steadily. In the same year 1995, the Internet age emerges in Malaysia and by the year 1996, there were a number of internet hosts. The number of Internet users in Malaysia is also increasing steadily and by the year 2008, nearly 59.35% of the total population uses the Internet. Table 1 shows the internet usage by population for the year 2000 and 2008 in the country.

Table 1: Internet Usage and Population in Malaysia, 2000 and 2008

Year	Users	Population
2000	3,700,000	24,645,600
2008	14,904,000	25,274,133

Source: Internet usage statistics and marketing report (Malaysia, 2008)

Hence, with the development of the Internet, both male and female users to certain extent are unquestionably dependent on internet as a medium of sharing ideas, building communication network as well as for information search. Thus, internet becomes the main channel for the entire information flow. However, it is being noted by many previous researchers that there is evidence on gender imbalance in the use of the

^{*} University Tunku Abdul Rahman

^{**} Universiti Putra Malaysia

internet. Internet is perceived as not gender-neutral (Heimrath and Goulding, 2001). It is said so because of the social conditioning and stereotype in the society and the Internet was linked too much to male due to oriental culture. However, if we look into today's education opportunity and technology advancement, Internet access and gender imbalance is not as significant as the access is readily available for both genders. In other words, there is a democratic space to which both genders have equal excess to the Internet. However, despite all the equal excess opportunity, gender differences are still apparent in the extent and purpose of its usage. In line with this, not much is known about the Internet usage pattern among male and female users in an employment context, i.e. academia, in Malaysia.

Background of Study

As early as in the 1960s, technology is known as being bias towards the interest and styles of men. Women look at computers and see more than machines, thus considering computers as masculine. This issue is being discussed by many researchers and it is seen as evidence that culture shapes the way a woman is brought up. Therefore, woman basically has this phenomenon that they do not belong to technology. For instance, many researchers indicate that parents, teachers and software manufacturers tend to give girls clues that computer science is not for them, thus it affects the feeling of girls towards information technology (Bimber, 2000). Heimrath and Goulding, (2001) argued that woman feel that their presence in computer science programs as a minority that can lead to feelings of out-of-place and unwelcome. As a result, previously women stayed away from any form of technology.

Nowadays, however women are being exposed to these technologies. Internet access has become available either at home or work and women, young and old, have increased their online usage on internet. According to Crocco, Cramer and Meier (2008) girls and boys have relatively equal interest in computers as far as in middle schools. However, Kim, Lehto and Marrison (2007) report that men and women use the Internet differently for different purposes.

The gap in internet usage is labeled as 'the digital divide' and it has been the subject of many scholarly debates. According to Cullen (2001) the digital divide has become a convenient metaphor to describe the perceived disadvantages of those who either are unable or do not choose to make use of these technologies in their daily life. Also stated that there is a specific group of people having disadvantages in their uptake in ICTs, one of those groups are women and girls. However, according to Kennedy, Wellman and Klement (2003) the digital divide is not simply an issue of accessibility, but are also related to obstacles to Internet usage.

Many researchers argue that men and women are different due to many factors. One common factor that differentiates a man and a woman is the biological factors (Buss, 1995). Besides that, men and women are different due to factors like gender identity and gender role attitudes (Fisher and Arnold, 1994). Therefore, the question arises here is that how and why gender differences influence the internet usage pattern? According to Kim, Lehto and Marrison (2007) gender differences are noticed in the way how the information are processed and decision making are made in terms of internet usage. A pervious study by Shashaani (1993) reveals that gender differences in Internet usage exist because men tend to be more interested in computers than women. Moreover, Bimber (2000) argues that gender differences exist due to socioeconomic status, in which men and women may differ in technology adaptation which in return influences computers and Internet access and usage. As such the study on gender differences on Internet is still a new dimension especially within the context of information search processes (Kim et al. 2007)

Moreover, research on Internet usage and digital divide focused on just documenting statistical differences in access and use (Kennedy et al. 2003). Teo and Lim (1997) reported that past research has typically focused on the demographics of Internet users, the number of Internet users and the host sites. Furthermore, previous studies mainly focused on quantitative research that describes the distribution attributes related to Internet usage pattern. It fails to describe the experiences especially by women who use the Internet services compared to men (Crocco et al., 2008). Thus, there is a need to explain the differential usage pattern and finding the cause for such differences especially in the context of home environment. Moreover, most

research on the internet has been carried out predominantly in Western countries and very little were done based on Asian contexts despite the rapid growth of the internet around the world (Teo and Lim, 1997).

Purpose, Research Question and Significance of the Study

The focus of this study is to look at the influence of gender role on the usage pattern of Internet at home in terms of usage frequency, knowledge and experience on the Internet, purpose of information searching at home, how useful is e-mails as a communication tool. The study is focused on academicians because the Internet has become an increasingly important tool in their academic careers. The research addresses the following research questions:

- What are the different Internet usage pattern between men and women when they are at home?
- How does gender role influence the usage pattern?

The study will help to provide an understanding on the Internet usage pattern among gender. Therefore, the findings of this study will provide an insight of usage pattern to business and employment entities specially those that deal with online activities. This is important because they need to understand the psychological differences between genders in relation to Internet usage pattern. By understanding such differences, it helps marketers and employers concerned to develop effective online marketing and advertisement strategies as well as behaviors in internet usage by the employees. The study is however limited to the specific focus on how gender role influences the usage pattern of Internet at home of the selected academics. The second limitation is on the generalizability of the findings as the academicians may not represent the academic community of the institution and at large.

LITERATURE REVIEW

Gender role

Gender refers to a range of differences between men and women due to socially constructed role and expectation. Gender identity as a male and a female plays an important role in framing actions and shaping ones' behavior. Moreover, women traditionally are sensitive, emotional and nurturing whereas men are expected to be assertive, analytical and unemotional thus referring them as feminine and masculine, respectively.

Role theory (Eagly, 1987) suggests that the sexual division of labor and societal expectation based on stereotypes leads to gender role. This is supported by Tan, Ling and Theng (2002) who state that the most important norm of patriarchal society was the division of social members according to sex. For instance, traditionally, men are viewed as financial provider whereas women have been viewed as caretakers. According to Kennedy et al. (2003) women are seen as primarily responsible for home care, childcare and family reproduction.

According to Robertson (2001) in the past, both genders have lived multiple roles such as men being the wage earners and women the caregivers. No doubt that many of these roles have remained the same but some kind of transformation has occurred in which either gender has a variety of jobs in the workplace and positions in the hierarchy of management. Thus female and male roles are intricately interwoven to certain extent as a result of the transformation. This can be supported further by Tan et al.'s (2002) work which mentioned that the influence of education, technology and fast economic growth have provided women with more opportunities to lead new roles and require greater partnership with men.

Walzer (2001) highlighted that gender roles often become more differentiated when men and women become parents. For instance, women provide more direct care for and spend more time with children thus creating unequal division of both household labor and childcare. Liu and Wilson (2001) further explain it by saying that women end up "shouldering" most of the childcare responsibilities which leads to time constrain. Additionally, Strazdins and Broom (2004) women play an important role by performing most of the emotional work in families like listening to and comforting children, giving emotional support to parents,

doing things to improve or maintain relationship. Tang and Cousins (2005) further supported that women are still mainly responsible for domestic labor and childcare. Sophie and Genin (2009) state that having children and a family are seen as two major milestones between job and family.

Therefore, gender role affects men and women in many ways. For instance women find that there are some limitations to the use of Internet at home due to her gender role. Kennedy et al. (2003) found that tasks in child care at home limit mothers than fathers in the use of the Internet. Robinson and Godbey (1997) further noted that men and women with children at home spend less time on the phone, reading newspapers, watching television or even attending cultural events. Thus, previous research did indicate that women with child caring have very little time for their own activities, for instance, accessing the Internet.

Gender and Internet

There are numerous debates on the link between gender and Internet usage. Many researchers are aware of gender inequality in Internet usage. However, inequalities are not only reflected in Internet technology but also in numerous aspects such as in education politics, and workforce. Norris's (2001) studies in Europe on Internet access highlights that social economic or individual factors may be significant for the understanding the Internet access. Even then, Winker (2005) has a different view, as the writer mentioned that there is a still gender specific difference that cannot be explained just by studying the differences in education or even in income and its effect on Internet usage.

Teo and Lim's (1997) study in Singapore indicated that there is a deferential access between boys and girls in terms of technology. They indicated that internet users in Singapore are predominantly males with females comprising only about 11 percent of Internet users. Their study found that females and males engage in different activities. Females spend more time on the Internet for messaging activities, promotional campaigns while males are more into downloading and purchasing activities. Thus to certain extent, male and female do use the Internet for different purposes.

Liu and Wilson (2001) argued that information technology has taken the world by storm and is changing the way businesses learn, consequently rushing their development across the globe; it cannot be denied that the entire generation that is growing up with new technology is likely to have different expectations and experience towards the use of digital media.

Early involvement of women with digital technology was restricted. In the year 1995, when Internet usage increases dramatically, many women were not in favor with it. However, the transition of developed society has changed how women engage themselves to the Internet. With these changes, the women involvement has become more visible. Moreover, Sherman, End, Kraan, Cole, Campbell, Birchmeier and Klausher (2000) mentioned that although the majority of Internet users are men, but the gender gap among users has narrowed. This can be supported by Heimrath and Goulding's (2001) study on students and members of the public at librarian in Southborough and Slough in which it concluded that female interest and confidence in using the Internet is high but when a comparison with male respondents is made, the females has not taken Internet rapidly. Moreover, Sherman et al. (2000) argued that college men fell more proficient and comfortable using the computer technology and the Internet when compared to female classmates.

A differential usage pattern in terms of frequency is also noted in the study of gender and Internet. Researchers indicate that frequency usage for male is particularly marked during the weekend (Eimeren, Gerhad and Fress, 2004). Along with other factors, time is an important variable to use the Internet in which men use the Internet more frequently and for long hours while women are in the categories of moderate user (Winker, 2005).

Gender differences in internet usage and web information seeking behaviors have attracted considerable interests (Hupfer and Detlor (2006). Liu and Huang (2008) study on male/female differences in web searching materials by focusing on the online reading environment shows that there is a significant difference between genders in which female readers have a strong preference for paper as a reading medium than male readers. On the other hand male readers have greater sense of satisfaction with online reading. Thus

the study reported that there are some significant differences between male and female behavior in the online reading environment.

Meanwhile, Hupfer and Detlor (2006) found that male and female differences in web searching appear to persist such as women are more into e-mail, chat, and search reference materials about medical and government information whereas men tend to focus on information about investment, purchase and personal interests. Hupfer and Detlor's (2006) finding is similar to Garbarino and Strahilevitz's (2004) work which concludes that females perceived Internet as a tool of maintaining social values. Lorence and Park (2007) showed that there is somehow a difference between female and male Internet users in terms of online health information users. The study found that males were more likely to be Internet users but in terms of online health information users, females were the dominant users. However, a study conducted by Wolin and Kargaonkar (2003) on gender differences in beliefs, attitudes, and behavior towards web advertising reported a slight difference. The writers found that males are likely to browse the Internet for functional and entertainment purpose while females are more into shopping reasons.

Skills do play an important role in framing gender inequalities in terms of Internet usage. Skills are the user's ability to locate content online effectively and efficiently. Therefore, men and women may differ significantly in their attitudes towards their technological abilities (Hargittai and Shafer, 2006). On the other hand, Heimrath and Goulding (2001) found that female students at Sheffield University felt that the Internet was too big and unstructured thus, searching the Internet difficult, not enjoyable and will use it only when unavoidable whereas male students were happy to search the Internet for relevant information. Moreover, Niemivirta (1997) reported that there is a difference in academic interest between genders. The research highlighted that males are more extrinsically motivated while females are more intrinsically motivated in terms of furthering their education.

In short, although it cannot be denied that Internet is embedded in our daily activities especially in the academic environment, but yet there is some reasons why both genders use them differently and how gender role influences their usage behavior at home. Therefore, this study attempts to fill in the knowledge gap by analyzing the Internet usage pattern and the influence of gender role.

METHODOLOGY

The study used a qualitative approach in which through this procedure more personal response is obtained in understanding men and women's realities on the use of Internet as well as about their experience on the influence of gender role to the usage pattern of Internet at home.

Participant and Setting: The participants of this study were three females and two males. These five participants were able to generate data to answer the research questions. Sampling was done based on criterion sampling technique. The set criteria were as follows: (1) the participants are academicians and have worked for more that 5 years in a private university. Academicians were chosen as the study subjects because academic work links closely to Internet usage in their daily work of teaching and doing research; (2) The participants should be married and their age is between 30-45 years old because this middle-age category shows significant role to play at work as well as home; (3) Finally, the participants should at least have a child. This is important as it helps to explain the influence of child caring responsibilities while doing their work as academicians.

Ethical Measure: The participants were briefed regarding the purpose and the confidentiality of the study, as well as the content of the interview. Moreover, a written consent was obtained from all the five participants. Prior to that, they were also explained that their participation during the interviews was on a voluntary basis.

Data Collection: An interactive semi-structured interview was used to collect the data. Interview was chosen because it focused on gaining a richer understanding of the context of women and men towards internet usage at home and the influence of gender role. According to Jung, Qiu and Kim (2001), qualitative open-ended approach is the best way to understand how social groups construct and respond to communication technologies in their everyday life. The participants were firstly asked to verbally describe

their experiences with the Internet, and later the researcher tried to understand the Internet usage pattern at home in terms of information searching, usage frequency, and e-mail usage. Finally, the participants were asked to describe their role at home and how the role influences their Internet usage pattern

Data Management: The interview was audio-taped and later transcribed by the researcher. Each transcript was treated as a unit of analysis. Themes were then analyzed. If a particular topic related to the research questions emerged in more than one transcript than it has being identified as a theme. Transcript reliability and accuracy was established by repeatedly listening to the audio-taped interviews to verify that all the information has been included.

FINDINGS AND DISCUSSION

Table 2 describes the profile of the participants of this study. Their age ranged from 30 to 52 years old. All the three female participants were junior lecturers having one to three children. The two male participants were senior lecturers with one and two children, respectively. The experience in Internet usage ranged from nine to 15 years.

Participant	(Age,	Gender	Occupation	No of children (Age)	Experience in Internet Usage
years)					(years)
Kala (32)		Female	Lecturer	1 (3 years)	15
Kasmah (39)		Female	Lecturer	3 (21, 15 and 8 years)	15
Suee (30)		Female	Lecturer	1 (10 months)	12
Fong (50)		Male	Senior Lecturer	1 (21 years)	10
Meng (52)		Male	Senior Lecturer	2 (13 and 12 years)	9

Table 2: Profile of the Participants

The study derived five themes that relate to respondents' experience and Internet usage pattern as well as about the influence of gender role on the Internet usage pattern. The themes are as follows: Understanding on the Internet, experience with Internet, purpose of Internet for information seeking, frequency of Internet usage, e-mail is perceived as a communication tool, and the influence of gender role on the Internet usage pattern.

Understanding on the Internet

Interviewees were asked to describe their perception or understanding on the Internet. Basically all of them were able to voice their perception and understanding of Internet. One common answer obtained from them is that, the Internet is a device for information seeking as well as for communication. One interviewee even described Internet as a platform to do anything. This is especially so that Internet is vital in the academia. One interesting answer is that Internet is no longer a luxurious item; instead it is a necessity for each and every one now:

.....for me, Internet is the 'must have thing' in today's world. The Internet is a necessity and not a leisure item anymore, everyone should have it. Emm ...what else...oh yeah, it replaces major role in our daily routine life.

Therefore, both genders to certain extent have a significant amount of knowledge about Internet. Previous studies have highlighted that computers and technologies were meant and made only for man (Bimber, 2000) but what can be seen in today century is that with the advancement of technology, the Internet is no longer a web browser for only the male but for both genders. This can be further supported by Sherman et al.'s (2000) findings that conclude the gender gap among Internet users has narrowed. There is no gender difference in the understanding and acceptance of the Internet. This is said so because it is clear that both have an equal experience in handling and using the Internet, thus being able to describe their knowledge about it.

Experience with the Internet

All the participants indicated that they have about an average of 12 years of experience using the Internet. This is expected within the academic community whereby there should be an acceptable knowledge and experience using the Internet. Almost all the interviewees have experience using the Internet ever since they first started working. Three out of five interviewees explained that their experience with the Internet did not start during university days. The reason is that Internet was not in use at that point of time. One interviewee indicated:

Oh no, not when I was studying because at that time there was no such facilities what you call now, the Internet. But yet, when I first started working, there is no internet facilities, even then, what I can remember is using the dot matrix screen...you know dot matrix?

Another interviewee, however, has a different experience. The Internet is made available to her much earlier:

When I was 16 years I was exposed to the Internet...yeah ...during my school days. At that age I was on the Internet almost every day and was a very frequent user. But now, it is not the same.

In contrast, some interviewees mentioned that even when they started working, the Internet was not fully available. One interviewee shared his experience by saying:

...definitely, when I was with the accounting firms, I don't have full access to Internet facilities except for company e-mails. Other access are restrictedare totally restricted, but when I became an academician things were different. Emm I find that I have more freedom to access to and do what I want to with the Internet facilities...

The data showed that both genders encounter their experiences with the Internet only when they first started working, except for one participant who was the youngest among the group in which the Internet was made available to her at a younger age.

Purpose of Internet for Information Seeking

Participants were asked to explain their purpose of using the Internet after office hours particularly at home. Variations in purpose of Internet usage were observed, even though all of them use the Internet at home for information seeking. One of the interviewees pointed that for those in the academia, internet is a must-know device:

....the issues of differential usage pattern will not arise so much, because as in the academic line, all of us have 100 percent access to the Internet to search for information for our lectures and research work.

A common pattern is recorded; in fact all of them involve themselves into any form of information search. However findings suggest that both genders have their own interest. Thus the result indicates that difference in the usage pattern emerges in terms of type of information searched. These findings are similar with the work of Liu and Hunag (2008), Hupfer and Detlor (2006), as well as Wolin and Kargaonkar (2003). On the other hand, a common answer was recorded in this study regarding academic search at home. Interviewees who are studying on the PhD programs or intent to enroll in the program mentioned about looking for academic journals after office hours compared to those who have no intention to enroll. In fact one male interviewee said that:

I don't involve myself so much into academic information searching when I am at home. I try not to do that. In fact I don't do it at all....well probably because I am not into research fever yet.....oh I think because I am not a PhD student...

In addition to the above, there is a slight difference in the kind of information that being searched. For instance the women interviewees responded by saying they basically go for women-related information such as women and family's health, recipes, beauty tips... On the other hand men responded by claiming that

they like to search information relating to business matters, learning the latest technology and automobile invention, sports and news. One of the women interviewees said that she is willing to search for information about traditional remedies if her son falls sick:

.....well most of the time, if it's not academic work, I will be searching for remedies...such as traditional alternatives compared to modern medicine, recipes...

From the analysis it is found that females are more interested into academic search at home. This is because they are either a PhD students or intending to do PhD while men are not interested to go into academic search when they are at home. This finding can be further supported with Niemivirta's (1997) work which states that gender differences do occur in respect to interest particularly in using the Internet outside office hours.

Frequency of Internet Usage

When asked about how frequent do they use the Internet at home? It is found that all the interviewees do access the Internet at home ever day however, they tend to use it for most an hour. Except for the male interviewees who mention that on weekends the usage frequency is more than an hour. This finding is similar with Eimeren et al. (2004) who reported that male's usage frequency is particularly marked during weekends. One interviewee shared his experience by saying:

I surf the Internet more during weekends.....that is also after lunch or late evening.well the most I use it is about 3 hours.

A common pattern is also found in terms of the usage time. All participants mentioned that they use the Internet in late hours of the night. It is such because the interviewees do not want to take family time for their Internet usage. In fact one of the female interviewees responded by saying that:

Yes. Otherwise I am not comfortable to be on the Internet without settling my household matters first. Only when everything is settled I can leisurely be on the Internet. If not I am always being ...how do I put it..emm ...my children will be disturbing me with their question and matters, thus I don't feel satisfied being on the Internet at that point of time.

E-mail as a Communication Tool

When asked about the Internet as a main communication tool, there were mixed reaction. Both genders to certain extent agreed that e-mail is an important means of communication as they do access the internet at home to check their emails but not really fond of e-mails as a main communication mode. In fact one female interview was asked about the communication mode that she prefers, and the answer is as follows:

emm ...I don't know about others...but I feel that phones I get immediate response...reply.. I think I prefer chat's over the phone than e-mail. For me personally I think e-mail is just for forwarding and for office use in the office.

However, one of the male interviewees claims that females are fond of e-mails. In the interview he mentioned that:

....well men are more into business purpose because of their interest. What I find about ladies is that they like forwarding e-mails. They can forward up to 10 emails in a day. I personally don't like forwarding mails even though some are really interesting and informational.

There is also a mixed reaction about using chat rooms as a mode of communication. Some female interviewees agree that they do chat to keep in touch with friends which is consistent with Hupfer and Detlor (2006), and Garbarino and Strahilevitz (2004) findings which conclude that women are more likely to value the Internet as a communication medium to maintain social bonds However, some female participants claim

that they have no patience to chat. For male interviewees, they do not like chatting. Moreover, one of the male interviewees mentioned that it is difficult for him to chat as he finds it is more for teenagers.

No I don't use it. I find it's more for youngsters. . There is a gap. If you ask me, I my self find it every difficult to communicate through chats... I don't understand the abbreviations... The other day when I tried to use it to communicate with my daughter in Australia, she used so many abbreviation like..emmmm...I don't understand them furthermore I'm slow at replying. It's also frustrating you know.

Therefore, although both genders have a similar perception towards e-mail usage at home, however there is difference in terms of chatting, female participants do engage in chat rooms to keep in touch with their friends while male respondents responded otherwise. The finding were probably linked to the age of the participants as the females participants are less then 39 years old while the male participants were 50 and 52 years old. Thus, age influences the liking towards chatting

Influence of Gender Role

Participants were asked the extent to which family responsibilities influence their decision in using the Internet at home. The results were quite consistent especially female interviewees highlighted that their role does play an important impact on freedom to access the Internet. For instance, one female interviewee gave her own experience in terms of changing role that influences her usage of the Internet at home.

When I was 16 years I was exposed to the Internet... yeah during my school days. At that age I was on the Internet almost every day and a frequent user. But now, it's not the same... ever since I am married, I have other responsibilities at home. To certain extent it restricts my freedom compared to before.

This suggests that role changes did influence the freedom to use the Internet. In fact all women interviewees commented that they have some social roles that influence their decision to certain extent. They describe their busy schedule at home limiting their free access to the Internet at any point of time. This explains why they tend to use the Internet at late hours at night. Children do influence the Internet usage at home. One female interviewee's response shows that children pose some barriers to freedom to access to Internet at home, especially when they are young.

I have three kids. They really need my attention at home. Once I did try doing things that requires urgent reply using the Internet...and at the end I stopped half way as my children were begging me to help them with their school work.

From the analysis, it is found that gender role does influence women academicians to certain extent. However, the male interviewees did mention that their role with children is not so significant compared to their wives in terms of Internet usage. Despite the fact that they are closely bond with their families, they have more freedom in terms of accessing the Internet at home.

Well I can say that I have some freedom on when to use the Internet at home. My children ...they don't really disturb me much. My wife takes care most of their need....for example my son Ji Hong prefers to have his mother to coach him with his homework.

Thus, from the finding we can arrive to a decision that both genders have some role to play at home, however, it is much more significant towards women. This finding is relevant with Liu and Wilson's (2001) work which explain that women end up shouldering most of the childcare responsibilities which leads to time constraint to the work. Therefore, gender role is more significant on women compared to men and that creates a barrier to their free access to the Internet usage at home. Women play an important role as a mother thus creating a clear traditional division of labor in which mothers place is to look after the children and to make sure the household chores are properly managed.

Another interesting finding is that, the decision to freely use the Internet also influenced by the age of the children. Children who are much younger where mother's care and attention is vital has higher

tendency to influence the Internet usage at home compared to grown up children. The following quotation illustrates the situation:

...when your children are young – there is care towards them. When the children are at teenage stage... they tend to do more of their things. Or when you don't have your children with you – studying overseas or staying out from home then the situation is different. You have more free time for yourself, so you can access to the Internet whenever you want to... just like me and my wife.

In general, gender role does influence this group of respondents' Internet usage at home. The influence is more significant for women who play multiple roles compared to male, and the age of the children. Therefore, both genders did agree that gender roles do influence the use of the Internet at home in which women experience more barriers compared to men.

Conclusion, Implication and Recommendation

Results of this study suggest that Internet users are not predominantly used by any sex. Both genders have equal access to Internet; however, the differences are noticed in terms of usage pattern. The access is similar for both genders probably because both genders have high exposure to the technology through their educational experience. As such educational attainment to certain extent enables both men and women to realize their capabilities and reach the full potentials. On the other hand, there is a slight variation in the usage pattern at home between men and women due to the influence of gender role. Furthermore, the background of the participants, who are academicians generally, influences the Internet usage pattern. All the women participants are also pursuing their PhD that makes them use Internet regularly at home compared to male respondents who were not in any study program. The finding on information search reveals that each gender has his/her own interest when accessing the Internet at home. Other than for academic purposes, females used Internet for 'women and family-related' information while men were more into sports, news and automobile.

In terms of usage frequency, both genders use the Internet at late hours at night but male responded that they use more during weekends. In terms of e-mails, male deny that they communicate much with friends through e-mails or even chats. However, both genders concluded that e-mails are for office purposes and thus don't relay on them as the main mode of communication between friends. Managing the household is typically considered as women's contribution to household management. Thus, the results of this study also suggest that gender role do influence the freedom to access to and pattern of Internet usage. The Internet usage is influenced by household responsibilities such as child care responsibilities and household chores. As such, women tend to use the Internet at late night when all their household responsibilities are settled.

Internet has grown tremendously throughout all aspect of our life in recent years, Thus it has become a powerful tool for exchanging information and ideas as well as for learning and gaining knowledge. The fact that all the participants are academician, thus usage of Internet is very much significant to their life because academic tasks are strongly associated with computer use. This is especially noticeable among the women academics because they are also pursuing their PhD. But it is noted that gender role significantly influenced the Internet usage at home. Therefore, it is concluded that academic activities are highly linked to the Internet service, as such women have to gain support from their spouses to bring about fundamental change in their usage capacity.

This particular study only focuses on gender and Internet usage at home among a small sample of academicians. However, for future research, it would be interesting to compare the usage pattern of Internet among married and single men and women and the influence of gender role. Future research could also compare the Internet usage pattern between professionals from different sectors; for instance, academicians and corporate personnel. Also suggested future studies in terms of Internet usage versus performance, and the impact of Internet usage on networking and career development of academicians by using larger sample and quantitative research approach.

REFERENCES

- Bimber, B (2000). Measuring the gender gap on the Internet. Social Science Quarterly, 81(3), 868-876
- Buss, D.M., (1995). Evolutionary psychology: A new paradigm for psychological science. Psychological Inquiry, 6, 1-30
- Colley, A. & Maltby, J. (2008). Impact of the Internet on our lives: Male and female personal perspectives. *Computers in Human Behaviour*, 24(5), 2005-2013
- Crocco, M., Cramer, J., & Meier, E.B. (2008). (Never) mind the gap! Gender equity in social studies research on technology in the twenty-first century. *Multicultural Education & Technology Journal*, 2(1), 19–36.
- Cullen, R. (2001). Addressing the digital divide. Online Information Cambridge University Press, Cambridge, 25(5), 311-320
- Eagly. A, H, (1987). Sex Differences In Social Behavior: A Social Role Interpretation. London: Taylor Francis Incorporation.
- Eimeren, B.V., Gerhard, H., & Fress, B. (2004). ARD/ZDF- Online Studies. Accessed on 29 June, 2009.
- Fischer, E., & Arnold, S.J., (1994). Sex, gender identity, gender role attitudes and consumer behaviour. *Psychology and Marketing*, 163-82
- Garbarino, E., & Strahilevitz, M. (2004). Gender differences in the perceived risk of buying online and efforts of receiving a site recommendation. *Journal of Business Research*, 57, 768-775
- Hargittai, E. & Shafer, S.M. (2006). Differences in actual and perceived online skills: The role of gender. *Social Science Quarterly* 87(2), 432-448
- Heimrath, R., & Goulding, A. (2001). Internet perception and use: a gender perspective, Program, 35 (2), 119-134.
- Hupfer, M.E. & Detlor, B. (2006). Gender and Web information seeking: A self-concept orientation model. *Journal of the American Society for Information Science and Technology*, 57(8): 1105-1115.
- Jung, J.Y., Qiu, J.L., & Kim, Y.C., (2001). Internet connectedness and inequality: Beyond the divide. Communication Research, 28, 507-535.
- Kennedy, T., Wellman, B., & Klement, K. (2003). Gendering the digital divide. IT and Society, 5(1), 72-96
- Kim, D.Y, Lehto, X., & Morrison, A.M., (2007). Gender differences in online travel information search: Implication for marketing communication on the Internet. *Tourism Management*, 28(2), 423-433
- Liu, Z. & Huang, X. (2008). Gender differences in the online reading environment. Journal of. Documentation 64:4, 616-626.
- Liu, J. & Wilson, D.(2001). Developing women in a digital world. Women. In Management Review. 16(8), 405-416,
- Lorence, D & Park, H. (2007). Gender and online health information: a partitioned technology assessment. *Health Information and Libraries Journal*, 24, 204-209
- Malaysia (2008). Malaysia Internet Usage, population and Telecommunications reports.
 - retrieve on May 2, 2009. Available at:
 - http://www.internetworldstats.com/asia/my.htm.
- Niemivirta, M.(1997). Gender differences in motivational-cognitive patterns of self-regulated learning. Paper presented at the annual meeting of the American Educational Research Association, Chicago , IL.
- Norris, P. (2001) Digital Divide Civil Engagement, Information Poverty and the Internet Worldwide. London: University Press Cambridge
- Robertson, J. A. (2001). Preconception of gender selection. The American Journal of Bioethics, 1(1), 2-9
- Robinson, J. P., & Godbey, G. (1997). *Time for Life: The Surprising Ways Americans Use their Time*. University Park: The Pennsylvania State University Press.
- Shashaani, L. (1993). Gender-based differences in attitudes towards computers. Computers and Education, 20 (2), 169-181
- Sherman, R., End, C., Kraan, E., Cole, A., Campbell, J., Birchmeier, Z., & Klausner, J. (2002). The Internet gender gap among college students: Forgotten but not gone? *Cyber psychology and Bahaviour*, 3, 885-894
- Sophie, A & Genin, G. (2009). Women's academic careers in technology: a comparative European perspective. *Equal Opportunities International*, 26(1), 90-97
- Strazdins L, & Broom D. H. (2004). Acts of love (and work): Gender imbalance in emotional work and women's psychological. *Social Science and Medicine*, 59: 1517-1527.
- Tan, T.T.W., Ling, L.B., & Theng, E.P.C., (2002). Gender role portrayals in Malaysia and Singapore television commercials: An international advertising perspective. *Journal of Business Research*, 55, 851-861
- Tang, N. & Cousins, C, (2005) Working time, gender and family: An East-West European Comparison, *Gender, Work and Organization*, 12(6), 527-550.
- Teo, T.S.H. & Lim V.K.G. (1997). Usage patterns and perceptions of the Internet: The gender gap, *Equal Opportunities International*, 16(6/7), 1-8.
- Walzer, S. (2001). Developing sociologists through qualitative study of college life. Teaching Sociology, 29, 88-94
- Winker, G. (2005). Internet research from a gender perspective. Searching for differential use patterns. *Journal of International Communication and Ethics in Society*, 3(4), 199-207.
- Wolin, D. L, & Korgaonkar, P. (2003). Internet research: Electronic networking. Web advertising: Gender differences Applications and Policy, 13(5), 375-385.