Gender Discrepancies in the Use of ICT in Higher Education

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Abstract

The considerable impact of information and communication technologies (ICTs) on higher education is, and has been growing faster than expected. Students have been using ICTs to learn, create, interact with others and for recreation, and yet significant and enduring disparities in ICT use exist between male and female students.

The purpose of this paper is to investigate the accessibility and attractiveness of different types of ICT applications in higher education for male and female university students. It explores the differences between male and female use of ICT, for educational, entertainment and socializing purposes both within and outside university. This paper draws on a study conducted at Sultan Moulay Slimane University in Beni Mellal, Morocco. It uses data collected from male and female students that gives an insight into their experiences with ICT and their attitudes towards its use in higher education. The research hypothesis is that male and female students use ICT differently.

1. Introduction

Internet has become a way of life for the majority of higher education students around the world. It is a functional tool that has greatly changed the way they interact with others and with information as they go about their studies. In this context, Usun (2003) stated that Internet is appealing to higher education for a number of reasons: it reduces the time lag between the production and utilization of knowledge; it promotes international co-operation and exchange of opinions; it furthers the sharing of information; and it promotes multidisciplinary research.

However, Gender comparisons are needed to give a better understanding of students' use of the Internet. Gender differences in the use of computers and internet have been well documented during the last two decades. This paper tries to determine whether male and female students had equal opportunities to use the Internet. It also investigates students' attitudes towards using the Internet and their Internet usage patterns to explore what gender differences, if any, were observed between male and female students both within and outside university for both educational and entertainment purposes.

2. Gender and Internet

There are numerous debates on the relation between gender and Internet usage. Many researchers are aware of gender inequality in Internet usage. Early involvement of women with digital technology was restricted. In the year 1995, when Internet usage increased dramatically, many women were not in favor with it. However, the transition of developed society has changed how women engage the Internet. With these changes, women's involvement has become more visible. Moreover, Sherman (2000) mentioned that although the majority of Internet users are men, the gender gap among users was narrowing down. 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 would use it only they have to whereas male students were happy to search the Internet for relevant information. In short, although it cannot be denied that Internet is embedded in our daily activities especially in the academic environment, there are reasons why both genders use Internet differently and why gender role influences usage behavior.

3. Methodology

The survey method of research was employed to conduct the study and a questionnaire was used as a data collection tool. The data was collected from college students over two semesters. The research targeted male and female students of the public sector university Sultan Moulay Slimane in Beni Mellal. The Research Population consists of 200 male and female students. This sample is equally divided into one hundred female and one hundred male students of the Faculty of Arts and Humanities enrolled in undergraduate programs. The questionnaire is designed to explore students' attitudes toward the Internet and usage, their experience and frequency of the Internet use, and purpose.

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4. Internet experience and usage patterns

This study showed that students had differences in their prior experience of the Internet and in the availability of Internet access. These differences are directly attributable to gender. It is not surprising, therefore, that female students in the study had less prior experience of the Internet compared to their male counterparts. The male students overall had been using the Internet longer than female students. More than half the male students reported that they had more than eight years of Internet experience, whereas females, reported that they had only six years. Thus, the present study confirms previous research that males were more likely to have used a computer for the first time earlier than their female counterparts. The female and male informants confirmed however that there is no gender difference in access to the Internet.

5. Frequency of Internet use

In this study, a differential usage pattern in terms of frequency is also noted. The survey reveals that male respondents used the Internet more frequently than females. When asked about their agreement with a statement "men spend more time on computers and surfing the Internet than women" acknowledged this to be the case, and almost 70% of women agreed that this was true. When students were asked about general computer use (not only Internet use), only male students said that they spent more time using computers than women. Male students reported that they spent on average 5 to 10 hours per week, while female students reported that they spent less than 5 hours average per week.

6. Internet confidence and skills

Students were asked about their confidence in using the Internet for various activities. Female students did not report less confidence than male students in their ability to use computers and the Internet. On the contrary, they were more confident using advanced computer skills such as using computer programming languages and applications. This could be a proof that things are changing, and that girls are catching up with the boys. However, although females have caught up with males in time spent on the Internet, there are still differences in how males and females use and reflect about information. Men tended to report more confidence in using search engines to find information, more confidence in downloading materials from the Internet, and more confidence about keeping records of websites accessed. In the same context, Sherman et al. (2000) argued that college men felt more proficient and comfortable using the computer technology and the Internet when compared to their female classmates.

Similar findings were reported by the research conducted by Shashaani and Khalili (2001) which revealed that even female students agreed there is gender inequality in the use of technology, and that they had little confidence in using technology for learning compared to male students. Literature suggests the reasons for such gender imbalances in computing are socially constructed and are not related to innate ability.

7. Attitudes toward the Internet

The questionnaire asked students about their attitudes toward the Internet, and the results analysis did not reveal any apparent gender disparity between the female and male students. In general, both genders agreed strongly that ICT was useful for them. They all asserted that they benefited from and enjoyed using the Internet. They were also more inclined to agree that ICT was valuable to them as students primarily because the productivity tools, such as word processing, spreadsheets and database software applications, could enhance and improve the quality of their academic work and presentation. They also had a positive impression of Internet technology as it has the ability to improve their communication skills with peers for personal or educational purposes. However, male students showed stronger positive attitudes than women. Women, on the other hand, felt that they were as skilled as men in using the Internet, and that the Internet was not male dominated.

8. The social media

The study revealed pervasive differences between the ways females and males use technology to socialize. Females outnumber males in the use of social media. The survey demonstrated that there is a strong gender gap in the way respondents make friends online. 83% of the girls who made friends online did so through social media, like Facebook or Instagram, while only 43% of the boys made their online friends through social media. Compared to boys, girls are more likely to participate in social networks, create blogs, use instant messaging, use e-mail, and post pictures, keep tabs on family and

communicate with one another, and share and research how-to information. In contrast boys are more likely than girls to post online video content. Interestingly, boys and girls tend to disclose similar amounts of personal information online. This stands in contrast to traditional social interactions where girls are more likely than boys to share personal information.

9. Video games

According to the study, gender differences turn out to be statistically significant when it comes to video games. Boys exhibit more regular or intensive gaming while girls play more occasionally. Most males play video games in person or online with friends they already know. The study found that males were more likely than females to use video games as a conduit for conversation, while girls tended to keep up with friends through texting and social media. Both men and women perceived that young women play video games far less frequently than young men and also considered themselves less influenced by the unrealistic images than others. In this vein, research demonstrates that boys are more likely than girls to participate in online gaming largely because they have more leisure time than girls.

10. The mobile online activity

Female students are taking the lead when it comes to mobile-based online activity. The majority of female students in this study are "mostly-cell" Internet users compared to boys. Correspondingly, Amanda Lenhart, suggested a possible explanation: "Girls often place more calls, text more, and generally use social/communicative apps and sites more than boys—which reflects broader gender differences in communication beyond just that that occurs via technology," she says. "It may be that girls are going online on their phones more to use sites and apps that allow them to communicate more with friends..." The cell phone is particularly useful for females to the degree that their movement in space is more tightly controlled than that of boys. In other words, the cell phone can contribute to a leveling of gender differences even in traditional settings because control over the spatial movement of females is less consequential than in earlier times when it was synonym with total social isolation. Thus such girls may be less likely to develop a closed "bedroom culture" (McRobbie 1978) together with their most intimate friends.

Conclusion

The results of the study show that while there is no gender difference in terms of ICT access there are significant disparities in terms of attitudes and usage patterns. The results demonstrate that male students have more confidence in using technology for learning than do female. The findings, then, confirm that even when they are educated, educated females are still lagging behind males in relation to information and communication technology. So, with respect to ICT, gender equality should not only be about equal numbers of men and women using technology, but using it purposefully, meaningfully and productively, in ways which enhance individual well-being as well as democracy.

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