Gender Divide in the Use of the Internet Applications

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ABSTRACT

There is mounting evidence of an increasing gender gap in computer education, which translates into a similar gap in the information technology workforce in the United States. This study investigates whether gender difference in computer usage is carried over to Internet usage. This paper focuses on exploring gender differences in the use of the Internet and the types of application people pursue online. The study will examine if there are fewer females using the Internet than males and will explore how gender difference plays a role in using the Internet for information search, interpersonal communication, entertainment, education, shopping, and personal finance. In addition, we investigate the male-female difference in Internet use by race, age, and educational level. Data used in this study are based on the September 2001 U.S. Census Bureau's Current Population Survey, a survey of approximately 50,000 households and more than 157,000 individuals across the United States. The analysis of data shows reverse trends regarding gender in the use of the Internet; furthermore, more females show Internet usage than males for e-mail or instant messaging, for taking an online course, for searching information about products and services, for purchasing products or services, for searching for health services or practices, for getting information about government, and for searching for jobs. However, more males use the Internet than females to play games; for chat rooms or listserv; to get news, weather, or sports; for viewing television, movies, or radio; for telephone calls; to trade stocks, bonds, and mutual funds; and for online banking. The implications of these results are also discussed.

Keywords: census; CPS; digital divide; gender; Internet application; Internet policy; Internet trust; Internet usage; Internet-based applications; Internet-based services

INTRODUCTION

Gender gap in computer education (Frankel, 1990) and computing careers (Alper, 1993) is widespread across the United States and has been a concern in federal, corporate, and academic circles (National Telecommunications and Information Administration, 2000). Representation of women in academic computer science has been shrinking for the last decade (Camp, 1997), and, consequently, there are disproportionately low numbers of women in the information technology...
workforce (Ahuja, 2000). The recent emergence of ubiquitous information technology in schools, homes, and the workplace, however, either allows or forces people to utilize it, regardless of gender. This study concentrates on the following question: while the gender gap is increasing in the academics and in the workforce, is it decreasing in the most common use of present-day computer technology — the Internet? This paper focuses on exploring the gender differences in the use of the Internet and the types of applications pursued online; that is, do males derive a different type of utility from the Internet than females do, and, if so, what implications does this difference have upon society? The following sections include a discussion of the research context of gender divide in computing and Internet use, the analysis of the data from the Current Population Survey, and conclusions.

RESEARCH BACKGROUND

Gender Difference in Computer Usage

There is a long history of gender differences in computer use and attitudes (Morahan-Martin, 1998). Many believe that males and females use and regard computer technology differently. A number of studies have found that women are less likely to use computers than men, because men are less anxious and more comfortable with and adaptable to computer technology. Overall, males are more interested in computers (Shashaani, 1997); they perceive computers as being more enjoyable, special, important, and friendly than females do (Levin, 1989). Males have a more positive attitude and a higher aptitude and use of computers than females do (Comber, 1997; Kay, 1992). A significant gender gap in computer attitude and usage also is found in the study by Smith and Necessary (1996). Gender differences in Internet adoption rates are often attributed to the gender difference in socioeconomic status, which influences computer access and use, although around one-half of the “digital divide” between men and women on the Internet is fundamentally gender related (Bimber, 2000). In Jackson’s (2001) study, females were reported to have more computer anxiety, less computer self-efficacy, and less favorable and less stereotypic computer attitudes. Females are avoiding information technology, not because they are less intelligent, but because computer pedagogy ignores a fundamental point. The gender inequity in the information technology field can be explained reasonably by the different male-female cognitive structures; that is, individual differences in encoding, processing, and organizing information, which leads to differentiated judgments (Bem, 1981).

Gender Difference in Internet Usage

Is the gender difference in computer usage in classrooms and at home, as noted in many of the above studies, carried over to Internet usage? Although there is a steady rise in the percentage of women online since the inception of the Internet in 1994 (http://www.gvu.gatech.edu/user_surveys), the question is whether the male-female gap is diminishing for Internet usage or not.

Many researchers have studied gender gaps over a period of time. A longitudinal study by Sherman et al. (2000) of college students over a three-year period (1997,
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