Chapter 5.1
Gender, Race, Social Class and Information Technology

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INTRODUCTION

The issue of the underrepresentation of women in the information technology workforce has been the subject of a number of studies and the gender gap was an issue when the digital divide dominated discourse about women's and minority groups' use of the Internet However, a broader view is needed. That perspective would include the relation of women and IT in the communities in which they live as well as the larger society. The information society that has emerged includes the United States and the globalized economy of which it is an integral part.

Women and minorities such as African Americans and Latinos are underrepresented in computer science (CS) and other information technology positions in the United States. In addition, while they areno longer numerically underrepresented in access to computers and the Internet – as of 2000, (Gorski, 2001) - they continue to enjoy fewer benefits available through the medium than white boys and men. The following article explores the diversity within women from the perspectives of race, ethnicity and social class in North America, mainly United States.

The technology gender and racial gap persists in education and in the IT workforce. A broader and deeper look at women's position in relation to the increasingly techno-centric society reveals that women may have reached equality in access, but not equity in academic study and job opportunities.

BACKGROUND

Linebarger (2003) pointed out three traditional digital divide constructs: 'family socioeconomic status', 'location of access to new technologies' and 'gender/race' for school age children. Inequities tend to appear along both social class and

gender lines, with male students and students from high socioeconomic status backgrounds well positioned to outpace female students and students from lower socioeconomic backgrounds in terms of computer skills and knowledge (Lockard, Abrams, & Many, 1987).

Equality in Access, but No Equity in IT Jobs

The gender digital divide refers to the gap in access rates between men and women (Gorsky, 2001). Based on this traditional gender digital divide definition, the gender digital divide gap has narrowed to reach "access equality." In 2002, 83 percent of American family households owned a computer (Corporation for Public Broadcasting, 2004). About the same proportion of adult men and women had access to home computers. The digital connectedness of American families was increased through home computer ownership. In 2001, 59 percent of American people had connections at home. By the end of 2000, women surpassed men to become a majority of the United States online population (Gorski, 2001)

The societal race and gender gaps in the United States as a whole have narrowed in the past 10 years, but in the IT field, the gender gap generally appears to be wider at all levels of employment.

Overall growth in these IT occupations was so strong during the decade of the 1990's that women working in IT continued to increase through the year 1996. According to D'Agostino (2003), in 1996 women were 41 percent in the IT field. The ITAA (2003) recorded a decline to 34.9 percent by 2002.

The situation is worse in highly professional positions such as computer programmers and computer systems analysts, where women tend to lag far behind men. The Table 1 shows how women are overrepresented in lower IT positions while there are few women in professional computer science fields.

However, the potential exists for this situation to change. Kvasny (2003) reports that minority women in low-income communities perceive IT as a means of escaping poverty while highly educated, middle-class and professional women regard IT as offering fewer opportunities for advancement. Kvasny suggests that IT and gender studies recognize the diversity within women.

Gains in Access, but Loss in Computer Science Major

The problem of underrepresentation of women in IT starts from the math and science pipeline at school. Through high school, girls are less

Table 1. Representation of women in various IT jobs in 2002

Information Technology Occupations	% Men	% Women
Computer systems analysis and scientists	72.2 %	27.8 %
Operations and systems researchers and analysts	51.3 %	48.7 %
Computer programmers	74.4 %	25.6 %
Computer operators	53.2 %	46.8 %
Data entry keyers	18.3 %	81.8 %
Total IT occupations	65 %	35 %

(Source: Bureau of Labor Statistics)

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