A Multicultural Analysis of Factors Influencing Career Choice for Women in the Information Technology Workforce

Eileen M. Trauth, The Pennsylvania State University, USA
Jeria L. Quesenberry, Carnegie Mellon University, USA
Haiyan Huang, The Pennsylvania State University, USA

ABSTRACT

This article presents an analysis of cultural factors influencing the career choices of women in the IT workforce. We employ the individual differences theory of gender and IT as a theoretical lens to analyze a qualitative data set of interviews with 200 women in four different countries. The themes that emerged from this analysis speak to the influence of cultural attitudes about maternity, childcare, parental care and working outside the home on a woman’s choice of an IT career. In addition, several additional socio-cultural factors served to add further variation to gendered cultural influences: gendered career norms, social class, economic opportunity, and gender stereotypes about aptitude. These results lend further empirical support to the emergent individual differences theory of gender and IT that endeavors to theorize within-gender variation with respect to issues related to gender and IT. They also point to areas where educational and workplace interventions can be enacted.

Keywords: cultural differences, diversity, IT personnel, gender, globalization, individual differences theory of gender and IT, qualitative research

INTRODUCTION

The 21st century is witnessing the emergence of a robust globalized information technology (IT) sector. There are two significant factors contributing to this global phenomenon. First, countries around the world are recognizing the economic benefits that accrue from the development of an IT workforce capable of engaging in
the deployment of computer hardware, software, and information services (Irwin, 2000; Shiva, 1989; Trauth, 2000). Second, sophisticated networking technologies that have made both asynchronous and real-time communications between different regions and countries feasible, have enabled both new ways of working and increased collaboration (Huang & Trauth, 2006). Consequently, the variety of countries who have become equipped with a maturing IT sector and a pool of talented IT workers, has significantly increased the diversity of the IT workforce (Trauth, Huang, Morgan, Quesenberry, & Yeo, 2006).

At the same time, there is evidence of social exclusion in the IT sector (e.g., Finquelievich, 2003; Schienstock, 1999; Trauth & Quesenberry, 2006). The focus of this article is on the underrepresentation of women in all segments of the information technology career pipeline, from enrollment in secondary school and university courses, to positions in the IT workforce, to IT management positions (Camp, 2002; Margolis & Fisher, 2002; Teague, 2002; Women and Minorities in Information Technology Forum, 1999). In the United States, for example, women comprise approximately half of the labor force, yet they are underrepresented in the U.S. IT workforce. The Information Technology Association of America’s (ITAA) Blue Ribbon Diversity Panel revealed that in 2004 women represented only 32.4% of the U.S. IT workforce, a figure down from 41% in 1996 (ITAA, 2005). The underrepresentation of women is also documented by the gendered response to the dot-com bust. The data show that men were far more likely than women to return to the IT profession as the market recovered. For example, from 2003 to 2004, the unemployment rate of skilled men in the IT field dropped 34.4% while the number of unemployed skilled women dropped only 5.15% (ITAA, 2005).

The number of women working in IT occupations in Canada has also declined over the last decade from 28% in 2001 to 25% in 2003 (Downie, Dryburgh, McMullin, & Ranson, 2004). In addition, women account for only 14% of the IT industry in India (Pande, 2006). The Workforce Aging in the New Economy (2004) reported that with regard to Europe, the industry and policy initiatives to attract more women into the profession have not been met with success. For instance, in the UK and Germany, men outnumber women five to one in computing professions; in the Netherlands it is seven to one. Furthermore, in 2001, women accounted for only 23.6% of the Australian IT workforce (Staehr, Byrne, & Bell, 2006). Based on the information compiled by Statistics New Zealand, Hembry and Presley (2006) noted that in New Zealand women accounted for only 11% of systems technician occupations and 16% of application engineer occupations in 2001. In the case of Ireland, in 1998, women accounted for nearly 31% of the Irish IT workforce but this number dropped to 27.5% in 2004 (Organization for Economic Co-operation and Development, 2007). We can conclude that the IT workforce is at the same time diverse and not diverse, depending upon the dimensions of diversity that one considers. The IT workforce is diverse with respect to nationality but not sufficiently diverse with respect to gender.

The underrepresentation of women in the IT workforce, coupled with increased cultural diversity emanating from the globalization of the IT sector, highlights a problem both for the practice and the research domains of the IT field. The problem for practice is to develop interventions to increase the underrepresentation of women. The problem for research is to theorize the issue and compile data in such a way that actionable interventions can result. Galpin (2002), for example, explained that the participation of women in the global IT workforce is influenced by complex cultural and societal factors that differ from country to country. As a result, he argued that when considering gender and IT issues it is important to take into account the cultural context. Investigations of the influential factors in gender and IT research need to account for cultural contexts so as to maximize the potential that solutions developed to improve the social inclusion of women in IT will have far-reaching effects. Therefore, in an
IS Change Agents in Practice in a US-Chinese Joint Venture
Dorothy G. Dologite, Robert J. Mockler, Quinghua Bai and Peter F. Viszhanyo (2006). 
Advanced Topics in Global Information Management, Volume 5 (pp. 331-352).
www.igi-global.com/chapter/change-agents-practice-chinese-joint/4573?camid=4v1a

Coordination and Social Structures in an Open Source Project: VideoLAN
www.igi-global.com/chapter/coordination-social-structures-open-source/19013?camid=4v1a