

Chapter 2

Factors Influencing Career Choice for Women in the Global Information Technology Workforce

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ABSTRACT

The increased cultural diversity emanating from the globalization of the IT sector presents challenges for gender research in the IT field. In an effort to address these challenges, this chapter presents an analysis of cultural factors influencing the career choices of women in the IT workforce. A review of the literature on cultural factors suggests the need for both greater analysis of cultural influences on women in the IT workforce and more nuanced theorizing about gender and IT. Hence, the authors employ the individual differences theory of gender and IT as a theoretical lens for examining, in greater detail, the variation in ways that perceptions of women's roles are embedded in a culture. The chapter then documents the influence of these perceptions on female IT career choices. Finally, the authors show how socio-cultural factors moderate these influences. The data employed in this chapter draws from a qualitative data set of interviews with 200 women from four separate studies of women in the IT workforces in Australia, Ireland, New Zealand and the United States. 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. The authors also saw evidence that other socio-cultural factors add further variation to gendered cultural influences: gendered career norms, social class, economic

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opportunity, and gender stereotypes about aptitude. These results lend empirical support to the emergent individual differences theory of gender and IT that theorizes 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 to address the under representation of women in the IT field.

INTRODUCTION

The twenty-first century is witnessing the emergence of a robust, globalized information sector. 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). In addition, 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 and Trauth, 2006). This has led to an increasingly diverse IT workforce as more and more countries become equipped with a maturing IT sector and a pool of talented IT workers (Trauth et al., 2006a).

Ironically, there is also evidence of social exclusion in the IT sector (e.g. Finquelievich, 2003; Kvasny et al., 2009; Schienstock, 1999; Trauth and Quesenberry, 2006). This chapter examines one particular group – women -- who is under represented 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 and Fisher, 2002; Teague, 2002; Women and Minorities in Information Technology Forum, 1999). In the U.S., for example, women comprise approximately half of the American labor force, yet the The Information Technology Association of America's (ITAA) Blue Ribbon Diversity Panel revealed that in 2004 women represented only 32.4 percent of the U.S. IT workforce, a figure down from 41 percent in 1996 (ITAA, 2005). The under

representation of women is also documented by the gendered response to the dot.com bust. The data shows 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 workers dropped 34.4 percent while the number of unemployed skilled women dropped only 5.15 percent (ITAA, 2005).

This phenomenon is replicated in other countries as well. The number of women working in IT occupations in Canada also declined from 28 percent in 2001 to 25 percent in 2003 (Downie et al., 2004). In India women account for only 14 percent of the IT industry (Pande, 2006). *Workforce Aging in the New Economy* (2004) reports that, in Europe, industry and policy initiatives to attract more women into the profession have not been met with success. In the UK and Germany, men outnumber women five to one in computing professions; in The Netherlands it is seven to one. In Australia the situation is the same. In 2001, women accounted for only 23.6 percent of the Australian IT workforce (Australian Bureau of Statistics, 2002). Based on the information compiled by Statistics New Zealand, Hembry and Presley (2006) noted that in New Zealand women accounted for only 11 percent of systems technician occupations and 16 percent of application engineer occupations in 2001. In the case of Ireland, in 1998, women accounted for near 31 percent of Irish IT workforce but this number dropped to 27.5 percent in 2004 (Organization for Economic Co-operation and Development, 2007). This review of workforce statistics shows that while the IT workforce may be diverse in terms of global representation, it is lacking sufficient diversity in terms of gender representation.

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