Race and the IT Workforce

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INTRODUCTION

As the existence of the present volume attests, gender is crucial in understanding the IT workforce. To stop there, however, would be to miss many other aspects of identity that influence issues of satisfaction, recruitment, retention and attrition in IT organizations.[1] In this article, I will focus on race[2]—one of the most salient identity characteristics for today's workforce. The goal is to summarize some of the research approaches from sociology, psychology, and management that have furthered our understanding of race. These perspectives are presented as possibilities for extending the repertoire of strategies for enriching our research on IT women, especially women of color.

BACKGROUND

As shown in Table 1, African Americans, Hispanic Americans, and Native Americans are still underrepresented in the U.S. IT workforce (Niederman & Mandviwalla, 2004); women of color in the IT workforce are even scarcer. While the Information Technology Association of America ("ITAA") and the National Science Foundation (Wardle & Burton, 2002) have funded initiatives focusing on increasing the diversity of the IT workforce, there is still a dearth of relevant research. There is evidence that U.S. IT organizations have problems attracting and retaining minorities (Tapia & Kvasny, 2004), not to mention promoting them (Igbaria & Wormley, 1992,

1995). These problems are exacerbated by differential access to technology in general—a phenomenon referred to as the "digital divide" (Compaine, 2001; Kuttan & Peters, 2003; Mack, 2001; Servon, 2002).

The demography of the IT workforce is also affected by characteristics of IT organizations. We know race as a cultural factor is important in the shaping of technology—in other words, technology and technology organizations are not race neutral. Nor are they colorblind, despite the majority of whites in the U.S. who believe otherwise (Gallagher, 2003). Research often treats race as a static individual trait, yet this is hardly reflective of the experiences of IT professionals. Researchers often separate out one identity element at a time, such as gender, or race, or age, and the literature has tended to emphasize simple, monolithic categories, such as "black" and "white." Of course, there are many other categories and combinations. The 2000 U.S. census was redesigned to allow citizens to check multiple boxes to identify themselves as multiracial. Nationwide, approximately 2.4% of the population, over 6.8 million Americans, checked two or more races, in dozens of different combinations (http://www.censusscope.org/us/chart_multi.html). By 2050, the rate of multiracial identification could increase to 1 in 5 (Lee & Bean, 2004). In typical organizational research, however, members of these groups are often too few in number to constitute statistically significant subgroups and must be removed from the population of research subjects (Cox, 2004). Hence, Asian American, Hispanic American, and dozens of multi-racial groups are

Table 1. Percentage by race, 2002

	White	African-American	Asian/Pacific Islander	American Indian	Hispanic
IT occupations	77.7	8.2	11.8	0.6	6.3
All occupations	83.5	10.9	4.0	0.9	12.2

Source: ITAA, 2003

excluded from research data. Individuals who do not "fit" the major categories become invisible. This problem is particularly acute for women of color.

The potential multiplicity of racial or ethnic self-identification can be affected by computer mediated communication technology, such as the Internet. Kolko, Nakamura, and Rodman (2000) note that in textual "cyberspace," visual cues that can identify race are invisible, but users can present themselves in a wide variety of different ways using textual cues and signifiers. Thus, people can construct identities in ways that were not possible IRL ("in real life"). However, Kendall (1998, 2002) has also found that "Gendered, classed, and raced identities continue to have salience in online interactions, with power relations often operating in much the same ways as they do offline, even when participants understand that people's online identities might differ from their offline identities" (1998, p. 150). Thus, while online identities can be fluid in a way that is different from offline identities, this does not necessarily extend to the power hierarchies in which identities (such as gender, class, race, or age) are embedded.

While novel in some respects, the fluidity of race in cyberspace is just the one of the more recent instances of the recognition of the socially constructed nature of identity in the research literature. Social psychologists have described the individual's identification with different groups:

Tajfel first defined social identity as "the individual's knowledge that he belongs to certain social groups together with some emotional and value significance to him of this group membership. (Hogg, Abrams, Otten, & Hinkle, 2004, p. 249)

Different group identities (such as age or ethnicity) might become more salient given the particular context, or at different times. Thus, it is misleading to think of a particular individual as having a single social identity group (such as "female"), since an individual will belong to more than one group, and the significance of these identifiers depends on the context. In practice, different sets of identities become salient at various times.

Perhaps the most challenging development concerns the acknowledgement that multiple identities related to race, class, or gender, should not be explored as separate elements. In people's actual experiences, aspects of identity are experienced together rather than severally. For example, Kvasny (2003) offers an analysis of the "triple jeopardy" that arises from the intersection of race, gender, and social class in the world of information technology through participant observation at an inner-city computer technology center. Such a theoretical (as well as methodological) approach can provide us with a far more nuanced understanding of the experiences of women of color in IT than approaches that rely solely on a limited number of racial checkboxes on a survey.

However, there are many hurdles that race researchers must overcome before their research is published (Cox, 2004). For instance, focusing on a non-white group can cause journal reviewers to reject such studies. Race studies can give rise to a number of methodological dilemmas, including sampling issues, or overlaying research constructs onto the accounts of the research participants (Cuadraz & Uttal, 1999). As He and Phillion (2001) have noted, during the research process, "previously reified formalistic notions of race, gender, and class" can be "shattered" (p. 47) since research participants do not fit nicely into the categories that have been created for them. Race researchers who strive to preserve the narratives and experiences of their research participants must also contend with issues of their own identity in the research process (McCorkel & Myers, 2003). Smith (2002) called for broader level qualitative analyses of race and the workplace as well as longitudinal studies, but added the caveat that the challenges of this type of research are myriad, including the problem of employer reluctance to participate and release information about the organization. However, organizational or occupational level studies (House, Rousseau, & Thomas-Hunt, 1995) are critical in understanding the dynamics of the workplace, as discussed in the next section.

MESO LEVEL: ORGANIZATIONAL CULTURE AND OCCUPATIONAL SUBCULTURES

Issues of race and identity take on significance against a background of organizational cultures and

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