

# Let the Sisters Speak: Understanding Information Technology from the Standpoint of the 'Other'

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## **Abstract**

*In this paper, I examine how and why the situated knowledge and lived experiences of working-class African American women shape their standpoint on information technology (IT). Using the biblical metaphor of the exodus and narratives of ascent, these women view IT access and training as part of a strategy for escaping poverty and despair. Whereas most of the extant gender and IT research provides rich insights into the marginalization of women, the women in this study felt empowered by IT. This contradictory outcome has three implications for the study of gender and IT. First, researchers must consider the multiple identities such as gender, race, ethnicity, socio-economic status, and sexuality that shape and are shaped by women's engagement with IT. Second, the notion of IT workforce should take into account not only the highly skilled IT workers who design and build IT artifacts, but should also consider the lower skilled workers who indirectly use IT. Third, IT training programs that serve working-class women must go beyond the transfer of IT skills to individuals. They must also redress the persistent structural barriers of poverty, spatial isolation, illiteracy, sporadic work, and racial and ethnic discrimination that systematically limit women's ability to compete for jobs that provide higher incomes, greater safety, more security, full-time hours, increased benefits, higher status, and less stressful work environments.*

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## Introduction

In organizational studies, diversity issues have traditionally been framed as new 'challenges' associated with the development of an increasingly multicultural workforce (Orbe, 1998). One of the most pressing challenges is the under-representation of historically underserved groups<sup>1</sup>. I use the term 'underserved' rather than 'under-represented' to unveil the unstated assumption that merely increasing the representation of women and minorities will lead to a more equitable workplace. Underserved signifies that women and minorities are marginalized in the institutional spheres that affect their life chances: in their education, in their work, in their consumption opportunities, in their healthcare services, and in their domestic relations. Indeed, these populations are also under-represented in the educational programs that prepare individuals for participation in the IT workforce (Tapia et al., 2004; Woszczyński et al., 2004).

*The U.S. risks losing the scientific, economic and human resource advantages it now enjoys without an IT workforce that is large enough to meet both the public and private sectors' growing demand, and that is adept at using and producing information technologies. In this respect, the under-representation of women and minorities in computer science and engineering is a serious national problem (National Science Foundation, 2001).*

To combat this situation, the National Science Foundation broadened its funding portfolio to include descriptive research as well as implementation projects designed to increase the representation of women and underrepresented minorities in IT (National Science Foundation, 2003). However, to date, pragmatic approaches for coming to grips with the changing IT workforce demographics have not vastly improved the situation. This failure to increase the representation of historically underserved groups may be partially attributed to two limitations in our current theorizing about diversity. First, the IT workforce is narrowly conceptualized as computer personnel who design, implement, and manage information systems. However, computer-based work is expanding beyond core IT personnel. In 2000, for instance, 110.9 million US workers used computers in the workplace. Over half of these workers (61.9 million) were employed in what have traditionally been considered low-skilled occupations such as maids and cashiers (OECD, 2001), but few studies have examined IT from a working-class perspective (Sawyer and Tapia, 2003).

Second, our theorizing about the IT workforce may be biased in the way that it conceptualizes historically underserved groups. Scholars have typically used knowledge about dominant groups (white, middle-class, American, male, managers) as a reference point in their discussion of all organizational members. For instance, in information systems research, technology adoption and use are often examined in terms of differences between dominant groups and 'others' (Gefen and Straub, 1997; Venkatesh and Morris, 2000). Others are generally theorized as deficient in some manner, but may achieve some measure of success, as defined by dominant groups, to the degree that they adopt the dominant groups' values and beliefs (Corson, 2001). The deficiency-assimilation model which emerges from this scholarship is problematic, because it fails to consider divergent standpoints. Historically underserved groups are not treated as an independent group for intensive analysis; instead, they are examined only in comparison to other groups. The literature base and research tradition resulting from this practice are, consequently, essentialist and void of the experiences of the 'other'.

In this paper, I make a case for an alternative perspective on the relations between IT and historically underserved groups. I do so by centering the voices of working-class African American women. If we begin with the standpoints of the 'other', then new questions emerge such as:

- How and why does the interaction of race, gender and social class influence standpoints on information technology?
- How and why might these standpoints inform the study of diversity in the IT workforce?

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<sup>1</sup> In this paper, "historically underserved groups" is used broadly to refer to women, disabled, lesbian/gay/bisexual/transgender, members of ethnic minorities, particularly African American, Hispanic, and Native American students, and not Asian Americans (given their high participation rates in IT-related fields). According to a study by the Computing Research Association, many of the issues that discourage minorities are similar to those for women - Freeman, H. and Aspray (1999), *The Supply of Information Technology Workers in the United States*, Computing Research Association, Washington, DC. However, I do not make the implicit assumption that the effects of diversity among women and minorities are homogenous - Chambers, M., Oskamp, S. and Costanzo, M. (1995), *Diversity in Organizations: New Perspectives for a Changing Workplace*, Sage Publications, Thousand Oaks, CA.

To address these questions, I begin by noting the limitations of prior research as a basis for understanding diversity in organizations. I then present feminist standpoint theory, a critical methodology for examining the social construction of the IT from the standpoint of marginalized groups (Hekman, 1997; Allen, 1996). The research methodology and findings are presented next. The analysis focuses on the accounts of working-class African American women attending courses at a community technology center (CTC) in a large urban city. These women share their situated knowledge about IT and its impact on their life chances. The paper concludes with implications for organizational studies and policy.

## **The Politics of Diversity in the Organizational Studies**

Studies of diversity in the IT workforce typically employ statistical techniques to analyze the impacts of gender, ethnicity, and race on organizational outcomes such as job performance, job satisfaction, job segregation, job turnover, wages, and benefits (Baroudi and Igbaria, 1995; Igbaria, 1995; Igbaria and Chidambaram, 1997; Reskin et al., 1999; Sumner and Kay, 2001; Lee, 2002; Sumner and Niederman, 2002). Researchers also examine the ways in which gender shapes and is shaped by numerous practices such as the adoption and use of IT (Gefen and Straub, 1997; Venkatesh and Morris, 2000; Venkatesh et al., 2000), the persistence of students in science, math, engineering and technology related disciplines (Camp, 1997; McGrath Cohoon, 2001), and the continued under representation of women in the IT workforce (Freeman and Aspray, 1999).

These studies explain the existence and patterns of inequities in the IT workplace, but do so from a strong managerial standpoint. Calvert and Ramsey (1996) contend dominant groups often cannot see their own privilege, power, and dominance. Consequently, they may find it difficult to see how the realities defined and created by them and for them unwittingly exclude historically underserved groups. Structural mechanisms such as glass ceilings and social practices such as going out for drinks after work with the boss may in fact marginalize women and people of color (Morgan, Quesenberry and Trauth, 2004). Dominant groups also exercise power by influencing, shaping, and determining the very wants and desires for organizational success (Luke, 1974). Thus, by simply doing what comes naturally, the actions and decisions of dominant groups can unfairly harm and exclude historically underserved groups (Cose, 1974; Davidson and Friedman, 1998; Bourdieu, 1993). In what follows, I problematize the neutral treatment of gender, race and social class in organizational studies, and describe how this treatment may limit our theorizing about diversity.

### **Gender as Variable**

The prevailing approach for studying gender in organizations is 'Gender-as-variable'. In this perspective, women are treated as a relevant but unproblematic research category (Harding, 1987). The researcher is basically interested in comparing and explaining differences between the sexes. "It investigates if, in what respects, under which circumstance, and to what extent men and women differ in terms of subjective orientations (psychologies, ethics, values, attitudes), and how social structures and processes affect them. Various forms of gender inequality are measured and explained" (Alvesson and Billing, 1997, p. 24).

Organizational interventions informed by this approach fail to address the fragmented nature of women's experiences and needs, because there is an underlying assumption of a single female experience (Cheng, 1997; Henwood, 2000; Kvasny, 2003a; 2003b; Trauth 2002). This essentialist tendency is political in that it emphasizes a single characteristic of gender (sex) while ignoring the equally important impacts of race, class, national origin, and sexual preference on the self-identity of women. Cheng (1997, p. 553) notes, "[a]lthough women-in-management research has become mainstream, other diversity issues are almost entirely ignored, particularly racism, patriarchy, class, heterosexism, sexuality, sexual identity, religion, postcolonial issues, physical ability and so on." Poor women, lesbians, and women of color face a 'system of interlocking inequalities and oppressions', and these multiple identities are central in their lived experiences (hooks, 1995). Therefore, these women may find little in this essentialist notion of womanhood that fits their experiences with and perceptions about IT.

### **Race as People of Color**

This tension between the commonality and uniqueness of women's experiences is at the center of the debates in feminism (Caraway, 1991). Within this debate, there is a general call to theorize both race and gender as interlocking and simultaneous features of women's existence (de Lauretis, 1986; Collins, 1990; Brush, 2001). However, in organizational studies, race is typically treated in an essentialist fashion (Cox and Nkomo, 1990). This leads to conventions such as merging people of color into single categories such as 'nonwhite' or 'other'. For Omi and Winant (1986), race is more than biological difference; race is the result of the historical construction of racial categories that form the major bases of domination in US society. These categories play a crucial role in

determining one's politics and ideologies, one's location in the workforce, and even one's sense of identity. Thus, categorizations such as 'nonwhite' are political in that they ignore whiteness as a racial position and deny racial differences among people of color. It is only by acknowledging and analyzing the relationship between race and power in organizations that we can address issues of diversity and equity.

We can see the importance of racial differences by comparing stereotyped notions of Asian- and African-Americans. On the one hand, Asian-Americans are stereotyped as the 'model minority' (Cheng and Thatchenkery, 1997) who are thought to have overcome cultural, racial, and social barriers to advancement. On the other hand, African-American women are stereotyped as 'that single parent element' (Kendell, 1999) who are thought to have immoral and deviant lifestyles. Organizational dynamics and experiences for these two groups will be different based upon these stereotypes. To mask these differences in statistical manipulations like factor analysis is to deny the particular realities of racial experiences. For all organizational members, race matters in different ways with dissimilar implications for organizational practices and outcomes.

### **Social Class as Taboo**

In organizational studies, gender is typically based upon the realities of middle-class white women, race is typically African American oriented, and social class is largely ignored. For hooks (1984) class is much more than Marx's definition of the relationship to the modes of production. Class involves your behavior, your basic assumptions about life. Cheng (1997) contends social class is taboo because "business school professors not only have a vested interest in reproducing existing class relations; they sell the American dream of using one's education to overcome humble class origins". Studies of social class would challenge the implicit assumptions that Western technology and notions of progress are empowering marginalized people all over the world (Ogube, 1996).

The absence of social class in organizational studies is not benign because it suppresses the knowledge and experiences of working-class employees. Maintaining the invisibility of working-class people is critical in structuring patterned relations of class inequality (Friere, 1970; Bourdieu, 1993) by leaving managerial ways of knowing unchallenged, and consequently making it easier for people in positions of power to rule. Nkomo (1992) notes even when the rank and file workers are studied, it is usually the researcher's view of functionalist organization science and its managerial bias that informs her interpretation of workers' experiences. The implications drawn from these studies provide normative recommendations to managers for addressing recruitment and retention issues as they pertain to women and minorities. However, the voice of the 'other' is largely absent from the articulation of the issues, the design of the research, and the implementation of the solution. This absence may contribute to the under-representation of women and minorities.

Why do organizational scholars continue to conceptualize the workplace as gender, race, and class neutral? Perhaps it is because we make faulty generalizations that universalize the experiences of one privileged group, generally middle class white male managers, as the defining faction for specifying the science of organizational studies (Allen, 1995; Orbe, 1998). It is therefore possible that our theories about organizational diversity are limited in their ability to explain the experiences of historically underserved groups (Nkomo, 1992).

### **Alternative Theoretical Foundations**

Feminist standpoint theory provides an approach for overcoming some of the limitations in our theorizing about diversity. This theory has developed out of the Marxist tradition, and provides a systematic approach for theorizing the complexities of lived contexts, experiences and perspectives of women (Harding, 1987; Haraway, 1991; Adam and Richardson, 2001). It stresses the importance of acknowledging societal positioning and the ways in which it serves as a subjective vantage point from which persons interact with themselves and the world (Orbe, 1998). Feminist standpoint theory is generally used to support two research goals. First, the theory is used to foreground the political, social, and material contexts of women's experiences and situated knowledge. Second, this situated knowledge is enlisted for social change. Both of these central tenets of feminist standpoint theory will be discussed in turn.

### **Foregrounding Women's Experiences and Situated Knowledge**

Feminist standpoint theory rests on the assumption that all knowledge is socially situated. Although no point exists from which to objectively evaluate the merits of other standpoints, what has usually been taken to be legitimate knowledge has been based primarily on the lives of men in dominant races, classes, and cultures (Allen, 1998). Collins (1990) argues the creation and legitimization of knowledge claims are key components in

the maintenance of unjust power systems. In organizational studies, for instance, dominant knowledge claims position women and other marginalized groups as outsiders who could be best understood by examining how they are different in relation to dominant groups.

In a move to understand women as independent agents with their own thoughts, histories and experiences, feminist standpoint theory advocates for the use of women's everyday lives as the foundation for constructing knowledge and ultimately for the emancipation of women (Harding, 1991). Unseen aspects of the dominant social structures are revealed as women speak from and about their reality. In addition, the act of speaking can serve as a consciousness raising experience from which acts of resistance and empowerment can emerge (hooks, 1984; 1989; Collins, 1998b).

Feminist standpoint theory is rooted in the power/knowledge framework that focuses on collective experiences and histories. Shared histories are based upon common experiences in subordinate locations in relation to power hierarchies, and these common experiences lend a particular kind of sense making to social groups (Hekman, 1997; Collins, 1997). And while the activities of those at the top of the stratified hierarchy both organize and limit what persons in lower positions can understand about themselves and the world around them, some theorists privilege the unique standpoint of the 'other'.

*Black women with no institutionalized 'other' that they can discriminate against, exploit, or oppress often have lived experiences that directly challenge the prevailing social structure and its concomitant ideology. This lived experience may shape our consciousness in such a way that our world view differs from those who have a degree of privilege (however relative within the existing system). It is essential for continued feminist struggle that black women recognize the special vantage point our marginality gives us and makes use of this perspective to criticize the dominant racist, classist, sexist hegemony as well as to envision and create counter-hegemony. I am suggesting that we have a central role to play in the making of feminist theory and a contribution to offer that is unique and valuable (hooks, 1984, p. 17).*

Race, class, gender, ethnicity, age and sexuality are not individual markers; they are elements of social structure that foster inequality resulting in groups (Caraway, 1991; Collins, 1998a). It is the multiplicity of these factors that creates social groups and their accompanying standpoints. However, proximity on a single variable such as gender or race does not imply solidarity because individuals have differences on other variables. For instance, a black female janitor who dusts the computer and a black female professor who produces journal articles on that same computer would have different lived experiences, and thus different standpoints. Collins (1996) notes an increasing mismatch between what privileged black women, especially those in the academy, identify as important themes and what disadvantaged black women deem as worthy of attention. As a result, it is more accurate to talk about a black *women's* standpoint rather than a black *woman's* standpoint.

### **Using Knowledge for Social Change**

The standpoint is an achieved position which results from ongoing struggles within the social, cultural, and political power structures that shape society. Within this milieu, women assert their agency to interpret their own experiences and to make sense of their own lives. Because women's experiences are informed by their own situated knowledge and by knowledge of the dominant culture's worldview, they can achieve only a partial and situated view of reality.

There is, however, interdependence between experience and consciousness. Many African American women, for instance, have concrete experiences that stimulate a distinctive black feminist consciousness. While black women share experiences, this does not guarantee that such a consciousness will develop. However, when women develop this consciousness and enlist this knowledge to direct collective action, social change can occur (Brush, 2001). Women can use their subordinate location in social space to challenge patriarchal institutions and ideological systems (Harding, 1991).

### **Research Approach**

The narratives discussed in this paper comes from a larger ethnographic study which focused on 15 African American adults (10 females, 5 males) who participated in two 7-week courses offered at a CTC. The first course, Introduction to Computers, focused on basic computer literacy and was geared for individuals with little or no prior experience with computers. This course included file management, keyboarding, the components of the

computer, and word processing. The second course, Computer Applications, covered the World Wide Web and email, and Microsoft PowerPoint and Word.

### **Data Collection**

Data were collected over an eight-month period using unstructured interviews and document analysis. The documents included ten essays written by the women at the conclusion of the course. In these one-page essays, the women wrote about their position on the digital divide. Over 50 informal interviews were conducted, each lasting an average of 20-30 minutes. Interview guides were developed to inform the conversations and to maintain some level of consistency among the interviews. Each interview guide consisted of the list of questions and topics to be covered, but these questions were not asked in any particular order. The themes and associated interview questions informing the analysis presented in this paper are provided in Table 1. The focus of the interviews and document analysis was to understand participants' initial beliefs and expectations about IT. Because I had no access to participants beyond the 14-week training course, I was not able to study actual use or changes in attitude over time.

<< Table 1 about here >>

The interviews were generally opportunistic, casual conversations which were intentionally limited to short time frames because they were not recorded. I chose against recording because I believed it would damage the rapport I was building with participants. Also, I had repeated access to the same individuals so I was able to use follow-up interviews to clarify and confirm my understanding. Informal interviews were also useful for uncovering new topics of interest (Bernard, 1995). Key phrases were jotted down during each interview to facilitate recall of the content of the discussion. Immediately after each interview, I looked over my notes and furiously wrote down everything I could recall. I also recorded insights and reflections about the interview such as the emotional tone, difficulties I experienced, and additional questions for subsequent interviews.

### **Data Reduction and Analysis**

Taken together, these qualitative texts form the foundation for a narrative analysis of the initial experiences of working-class African American women, and how their experiences shaped their perceptions of IT and its relevance for their lives. Narrative analysis has developed from the observation that people often make sense of their lives by producing and interpreting stories (Riesman, 1987; 1993). Researchers might usefully attend more carefully to the coherent narratives that traditional methods of interpretive analysis are likely to obscure (Default, 1995). For instance, traditional techniques for analyzing qualitative texts direct the researcher to find illustrative themes which emerge across interviews (Glaser and Strauss, 1967; Miles and Huberman, 1994). In narrative analysis, the stories produced by each individual are grouped together to form in depth accounts. The analysis is generally based upon a close reading of a small number of these in depth accounts.

### **Analysis and Discussion**

In this section, I discuss how and why working-class African American women voiced their self-defined standpoints in ways that tapped into their everyday consciousness. Although I work only with the narratives produced by the women, my reading is informed by the background data from the larger study. I chose to work with women's accounts based upon three observations in the field. First, the overwhelming majority of people making use of the CTC were female (80%). Although the class that I studied had 5 men, I only had sustained contact with 2 male informants, and they tended to have bipolar opinions about IT. One was extremely pessimistic and stopped coming to class before the course concluded, and the other was extremely optimistic and continued IT training beyond the 14 week program at by the CTC. Second, women and men had different experiences at the CTC. For instance, men were more likely to drop out of the training courses when they became frustrated in the classroom. They were generally not comfortable displaying their confusion publicly in the classroom. Therefore, women proved to be more accessible informants. Third, as a black female researcher from a working-class background, I experienced greater cultural rapport with the female informants. The stories that I was able to illicit from the female informants during interviews were richer and similar to each other in perspective. This led me to employ narrative analysis, an analytical approach which privileges a few rich stories, and feminist standpoint theory, a conceptual framework for privileging voices of oppressed people. Thus the analytical method and theoretical framework emerged as I attempted to make sense of the interview data.

Feminist standpoint theory posits that standpoints began from the women's experiences and concrete encounters with oppression. As women reflected upon these experiences, they can begin to rearticulate their own vision for

appropriating IT to improve their individual and collective life chances. These two moments in the development of a working-class, African American women's standpoint on IT are discussed in turn.

### **Experiencing Oppression**

Frye (1983) notes that oppression is a fundamental, but often misunderstood, claim of feminism. Oppression occurs when social groups are systematically caught among forces which restrain and restrict mobility. For hooks, oppression is the absence of choice and collective resistance.

*Women who are daily beaten down, mentally, physically, and spiritually-women who are powerless to change their condition in life. They are a silent majority. A mark of their victimization is that they accept their lot in life without visible question, without organized protest, without collective anger or rage (hooks, 1984).*

Frye uses the term 'double-bind oppression' to name the situation that occurs when oppressive forces push women into situations for which there are few options, all of which are sub-optimal. The women in this study were faced with double binds – do you continue to work in a menial job or do you throw it all away to go back to school for additional training, do you remain on welfare or do you work in a low paying job that won't move you out of poverty? Either way you choose, you cannot win.

For instance, Sandy was employed as a bookkeeper. She has always enjoyed working with computers and was extremely optimistic about the prospects for using her computer training on her job. Early in the training, she came to see how she could apply her database skills in the workplace. Since she didn't have a computer at work, she decided to bring her home PC into the office. She began to load customer information into an Access database. Soon she was printing mailing labels, and running reports. Sandy was proud of her accomplishments, but her success did not sit well with her boss. He began to derail her efforts by not allowing her to come to computer classes during her lunch hour. Sandy surmised that her boss was embarrassed because she knew more about computers than he did. And while he didn't stop her entirely, Sandy was no longer able to attend class on a regular basis. Eventually her boss delivered a final edict – either take the PC out of the office or quit the job. Sandy took a leap of faith and quit her job. All she wanted was a job that would enable her to work with computers and maintain a livable wage. In the two months after she quit her job, she attended job fairs but was unable to find employment. For a middle-aged black woman with no practical computer experience and a computer certificate from a free city-sponsored program, an IT-related job remained beyond her reach.

From Sandy's perspective, the particular program was not effective – the goal seemed to be one of providing training rather than providing a means to assist participants in finding and retaining meaningful employment. This represents a cruel contradiction between the promise of opportunity enabled by IT skills and the experience of oppression. Oppression occurs through these struggles for social inclusion and mobility. According to friends, city officials and the popular press, IT skills were supposed to help her to get 'a good job'. Sandy made the commitment to IT but became frustrated when she didn't receive the anticipated benefits. She believed IT skills would help her to 'get paid' and move out of poverty. And while the city officials often rattled off statistics that highlighted the level of poverty in the community and the projected shortage of IT workers, they neither envisioned nor designed a workforce development component in their CTC initiative. They simply did not provide the employment linkages that might lessen the double bind oppression.

Rather ironically, the CTC was co-located in the same building with the workforce development agency. Two women attempted to take advantage of the services offered by the agency. Cindy is a young, unemployed, single parent who was laid off from a data entry job in a warehouse. She wanted to use her IT skills to obtain an administrative assistant position in an office setting. Cindy would come to class a half hour early on most days to brush up on her typing skills. However, she was not able to pass the typing test at the employment agency.

IT presented a double bind to both Sandy and Cindy – will you continue to believe in the espoused benefits of IT or will you be betrayed by hoping too much? 'Computers are everybody's dream of what is right with the world', but these women did not receive the outcomes and benefits they anticipated. In many ways, the women are living lives shaped by forces which are not accidentally but systematically interlocked in such a way as to catch them in double binds which penalize motion in any direction. Barriers like single parenthood, low educational attainment, public assistance, and underemployment can't be looked upon individually or additively. These barriers are interwoven. To feel the effects, we have to look at the full range of oppressions.

Frye uses the metaphor of a bird cage that is comprised of several individual wires. Each individual wire is thin and if you only concentrate on one, you would just assume the bird could simply fly around the barrier and be free. However, if you look at all of the wires, it becomes apparent that the sum of the wires effectively constructs a system of barriers that are as effective as a solid wall in confining the bird. IT becomes another wire on the bird cage. Digital divide interventions that only deliver IT access and basic computer literacy may be less successful than expected because they fail to redress the systematic barriers that limit IT access and skills in the first place. The discourse of technology progress is oppressive because it creates a belief system that is imposed on people who then have little chance of actually benefiting materially from IT use. While the women did successfully enter a discourse from which they were entirely eliminated from, they did not receive the expected employment opportunities. Despite our best intentions, we create a double-bind by imploring the women to engage with IT but not delivering on the espoused outcomes.

The CTC, on the surface, appears to be a helpful service. However, when we question the practical meaning of these gestures, we begin to see that the IT training which was provided was largely outside of the women's lived experience. For instance, one word processing exercise had the women creating flyers for a ski resort. The document has a picture of a blond woman with ski gear speeding down a slope with the caption "Feel the Thrill, Ski the Slopes". This lesson wasn't integrated with working-class, African American women having little or no experience with skiing. Another exercise called for the women to create a PowerPoint presentation about strategies for studying in college. Whether deliberate or not, the detachment of this training from the concrete realities of the women suggests that the women's needs are unimportant or irrelevant. City officials failed to see how the elements of the digital divide are systematically related to larger schemes of inequality.

### **Developing a Standpoint**

Given the pervasiveness of racist and gendered representations of working-class African American culture, the women did not have many mechanisms for representing and demonstrating the fullness of their abilities, aspirations, and accomplishments. They did, however, generate self-defined perspectives which grew out of their struggle to appropriate IT. The discourse of empowerment and opportunities for increased workforce participation resonated with the women's deep and justifiable frustrations with the failure of public schools to educate them and their children, and the lack of jobs within the inner city that provide livable wages for parents. They believed in the possibility of upward mobility and collective progress. Even though they suffered, they believed that IT presented a real opportunity for change. Once the participants learned the basics of operating a computer, they began to reflect critically upon their learning experience and how they would apply their newly acquired skills. They did not experience, at least in the short run, the economic empowerment they initially associated with IT. Rather than turn away from IT, however, they used their everyday experiences to articulate a collective vision of social justice. They articulated their own standpoint which saw this training as a first step on the road to empowerment.

Ascent is perhaps the most prevalent metaphor produced by the women. Ascent evokes feelings of movement, travel, and rising. Many women such as Keisha used language that stressed change in thinking which would lead to a change in action. The women were moving towards a greater participation in 'the twenty-first century'.

**Keisha:** *To be able to access information rapidly is important. Knowing how to surf the Internet makes the information as close as your keyboard. We are learning to also use computer applications, Microsoft Word, PowerPoint, Excel and Access just to name a few that have brought us into the twenty-first century.*

Narratives of ascent are not about gradual movement; they are about rapid escape from oppression. In Rashida's narrative, we see movement through words like 'beginning' and 'journey' and 'I am on my way'. These basic computing courses represent the start of her relationship with IT. She is quite optimistic about how these skills will be leveraged to improve her quality of life in the future – "look out world as I am on my way!"

**Rashida:** *I have certainly had a successful computer orientation and beginning. It is truly an exciting journey. My goal is to continue my training with the ultimate goal focusing on certification status. Then, it is look out world as I am on my way!*

Gail employs the metaphor of the "road of information freedom" in her narrative of ascent. As she reflected upon her training at the CTC she stated, "This is the first time in my life that I feel educated." The Internet is a "mode of

travel” which can be used to “change our future”. She now feels more connected to the larger IT discourse community. The sense of inclusion is important as it signifies a break from the exclusion and inferiority experienced by oppressed people. She often uses collective words like “we” and “us” to signify the collective advancement of working-class people in her community. Even if Gail has not improved her economic prospects, at least she has “made the first step” by learning about computers and their use in everyday life.

**Gail:** *[W]e are taking computer classes that have connected us with the great information divide. We are no longer left behind...We are still traveling on the road of information freedom and enjoying every minute of it. There is so much to be learned, and the information is available because we made the first step, receiving information and taking the steps to change our future in the usage of the computer in our everyday life. We now realize that the Internet is the mode of travel for today as well as tomorrow.*

Narratives of ascent are not only about movement to a better place; they also express a yearning for escape from alienation and loss. The women often employed the exodus metaphor as they described IT. Gates and West (1996) argue biblical imagery is imprinted on the psyche of African Americans. It evokes a class politics in which exodus is less a place of bondage or a promised land, but more a series of sojourns from Africa via the Middle Passage, from slavery via the Underground Railroad, from the South via the Great Migration, and now from the inner cities via the virtual world of Cyberspace. Although these women face tremendous barriers, they continue to strive, and do not yield to despair. Metaphorically the information superhighway is seen as a road that moves, as a mechanism that enables black people to flee from the oppressive and menacing conditions of the inner city and to keep despair at bay.

**Cynthia:** *Even though I have myriad things to learn, and am still in the beginning stages of my computer/technology education, I know that it can be done and I am excited about the future possibilities in this field. The instructor...is also adept at demonstrating the relationship between the level of technological competence, and success in the workforce.*

**Shawna:** *I will learn a lot of computer applications when I finish this class. I will be able to get a better job and better opportunities. I will conquer the digital divide. We all need to learn these computer applications. We will need this information to be successful in the business world. Afro-Americans have basically been left behind in this arena. We must make progress....I am attempting to empower myself with the use of the technology available today and proficient use of the computer. I would like to share this information within the community because it is so very important in our society.*

Cynthia and Shawna viewed IT access and skills as part of a strategy for escaping poverty, enhancing their parenting skills, and broadening their social participation in the digital society. The idea ‘that there is something out there for us’ in cyberspace moved the women, sending them to on a journey on to the ‘information highway’. An outgrowth of this movement was a renewal of hope, solidarity, and self-determination.

## **Implications for Research**

In this study, I have argued for broadening our conceptualization of diversity and IT. The working-class African American women in this study initially constructed IT as highly empowering from an economic standpoint. During the course, however, the women began to realize that they were acquiring basic skills that only represented a first step on the journey to self-improvement and empowerment. Two women, for instance, started taking GED courses because their success in the IT training course gave them confidence in the classroom. What this study does point out is the success of the program in transmitting skills and confidence, but the failure of the program to effect life chances in the larger context of participation in the IT work domain. However, even though IT training did not alleviate the economic oppression in the short run, it did provide a site for the women to express a sense of collective action and movement. This more nuanced perspective advances the gender and IT discourse beyond the essentialist notion that women feel disempowered by IT.

Exploring the intersection of gender, class, and race identities helps us to understand subjugated knowledge, and how women position themselves differently within the IT discourse, depending on the power and resources that they have on hand. Diverse standpoints give rise to different spaces within which women are exposed to different understandings of technology, gender and the relation between the two. Thus, it is important that organizational

studies address a variety of women, and their accompanying standpoints and experiences. Researchers should, however, be cognizant of the extent to which middle class, college educated women dominate the IT and gender discourse and, in doing so, may unwittingly promote their own class interests.

Feminist standpoint theory is useful in this regard because it leads the researcher to look for both commonality and differences among groups without falling into the trap of individualism. Foucault (1979) warns that dominant groups use individualization as a tool to foster utopian visions of meritocracy. Individualization leaves the masses in isolation and profoundly powerless relative to dominant institutions because resistance to institutions and values dissipates when analysis focuses on individuals. Therefore, future research should focus on solidarity among women along the diverse axes of sexuality, social class, nationality, religion, geographic region and job classification. Armed with the knowledge and experience of diverse peoples, we can explain how power relations oppress historically underserved groups, how these groups escape oppression, and begin to envision more democratic and just institutional practices that challenge the societal structures which limit women's engagement with IT.

### **Implications for Organizational Policy**

For the women in this study, IT has become a sensible solution to real social and economic problems. The discourse of IT and empowerment resonated with the women's deep and justifiable frustrations with the failure of public schools to educate their children, and the lack of jobs within the inner city that provide livable wages. It seems that something is finally being done to improve the situation. And although the city officials may be dominating the agenda, the women moved from a narrow focus on IT and employment. They developed their unique standpoint on IT and social justice. This training may not get them higher paying office jobs, but it would at least provide the basics for setting them on that path.

In a world where people experience oppression on multiple fronts, it is relatively easier to improve one dimension and document the success of that one dimension, while ignoring the dimensions sacrificed. In this study, much work has gone into developing solutions for the technical dimension of access, while much less attention has been paid to overcoming the social structures that limit the striving of the women who believed in the promise of IT, but were structurally barred from achieving their goals. Thus, there is a strong need to support not only the diffusion of the IT artifact, but to also support the hopes, aspirations, and points of view of historically underserved groups. Business organizations and other local institutions must deliver on the enabling ideology and opportunity structures that we tend to associate with IT such as higher paying and more secure jobs, greater participation in the democratic process, enhanced opportunities for social and cultural interaction with geographically dispersed peoples, significant opportunities for learning through distance education, and enlarged consumption opportunities through e-commerce.

The women saw themselves as agents of social change, not victims. However, calling upon these women to be change agents only makes sense if we also look at the history, culture and structure in which their agency is to be exerted (West, 1994). The dominant meanings of IT constructed by privileged individuals and institutions should be tempered with the knowledge, perspectives, and needs of the dominated. Their subjugated knowledge should inform the development of objective, socially just, and culturally relevant programs in business organizations, community technology centers, libraries and other stable local institutions that provide assistance in the use IT to improve the life chances of historically underserved groups.

Sowell (1994) argues the diffusion of technology as such is not as important as the cultural receptivity of different people to that technology – their ability to take the technology, make it their own, modify it to suit their own purposes and circumstances, and develop it further on their own. The values of a culture are revealed by the choices actually made and the sacrifices that are endured in the pursuit of some desired goals at the expense of other desired goals. The fact that these women may regard IT as desirable does not mean that they are prepared to realize their long-term goals. It does not mean that they are able to make additional sacrifices to find childcare and transportation to attend free IT training courses. Nor does it mean they will adopt and use IT in the prescribed manner. Understanding IT from the perspective of the 'other' challenges conventional wisdom regarding women insofar as these findings demonstrate that women felt empowered.

### **References**

Adam, A. and Richardson, H. (2001). "Feminist Philosophy and Information Systems", *Information Systems Frontiers*, Vol. 3, No. 2, pp. 143-154.

- Allen, B. (1995). "'Diversity' in Organizational Communication", *Journal of Applied Communication Research*, Vol. 23, pp. 143-155.
- Allen, B. (1996). "Feminist Standpoint Theory: A Black Woman's (Re)view of Organizational Socialization", *Communication Studies*, Vol. 47, No. 4, pp. 257-271.
- Allen, B. (1998). "Black Womanhood and Feminist Standpoints", *Management Communication Quarterly*, Vol. 11, pp. 575-586.
- Alvesson, M. and Billing, Y. D. (1997). *Understanding Gender and Organizations*, Sage Publications, London.
- Baroudi, J. and Igbaria, M. (1995). "An Examination of Gender Effects on Career Success of Information Systems Employees", *Journal of Management Information Systems*, Vol. 13, No. 1, pp. 127-143.
- Bernard, R. (1995). *Research Methods in Anthropology: Qualitative and Quantitative Approaches*, AltaMira Press, Walnut Creek, CA.
- Bourdieu, P. (1993). *Language and Symbolic Power*, Harvard University Press, Cambridge.
- Braxton, J. M., Sullivan, A. S. and Johnson, R. M. (1997). "Appraising Tinto's Theory of College Student Departure", in Smart, J. C. (Ed.) *Higher Education: Handbook of Theory and Research*, Agathon Press, New York.
- Brush, P. (2001). "Problematizing the Race Consciousness of Women of Color", *Signs: Journal in Culture and Society*, Vol. 27, No. 1, pp. 171-198.
- Calvert, L. and Ramsey, V. (1996). "Speaking as White and Female: A Non-Dominant/Dominant Group Standpoint", *Organization*, Vol. 3, No. 4, pp. 468-485.
- Camp, T. (1997). "The Incredible Shrinking Pipeline", *Communications of the ACM*, Vol. 40, No. 10, pp. 103-110.
- Caraway, N. (1991). *Segregated Sisterhood: Racism and the Politics of American Feminism*, University of Tennessee Press, Knoxville.
- Chambers, M., Oskamp, S. and Costanzo, M. (1995). *Diversity in Organizations: New Perspectives for a Changing Workplace*, Sage Publications, Thousand Oaks, CA.
- Cheng, C. (1997). "A Review Essay on the Books of bell hooks: Organizational Diversity Lessons from a Thoughtful Race and Gender Heretic", *Academy of Management Review*, Vol. 22, No. 2, pp. 553-574.
- Cheng, C. and Thatchenkery, T. (1997), "Why There is a Lack of Workplace Diversity Research on Asian Americans", *Journal of Applied Behavioral Science*, Vol. 33, No. 2, pp. 270-276.
- Collins, P. (1996). "What's in a Name? Womanism, Black Feminism, and Beyond", *The Black Scholar*, Vol. 26, No. 1, pp. 9-19.
- Collins, P. H. (1990), *Black Feminist Thought: Knowledge, Consciousness and the Politics of Empowerment*, Routledge, New York.
- Collins, P. H. (1997). "Comments on Hekman's 'Truth and Method: Feminist Standpoint Theory Revisited': Where is the Power?" *Signs: Journal in Culture and Society*, Vol. 22, No. 2, pp. 375-381.
- Collins, P. H. (1998a). *Fighting Words: Black Women and the Search for Justice*, University of Minnesota, Minneapolis.
- Collins, P. H. (1998b). "Intersections of Race, Class, Gender, and Nation: Some Implications for Black Family Studies", *Journal of Comparative Family Studies*, Vol. 29, No. 1, pp. 27.
- Corson, D. (2001). "Is the Glass Ceiling Unbreakable? Habitus, Field, and the Stalling of Women and Minorities in Management", *Journal of Management Inquiry*, Vol. 10, No. 1, pp. 16-25.
- Cose, E. (1974). *The Rage of a Privileged Class*, Harper-Collins, New York.
- Cox, T. and Nkomo, S. (1990). "Invisible Men and Women: A Status Report on Race as a Variable in Organizational Behavior Research", *Journal of Organizational Behavior*, Vol. 11, pp. 419-431.
- Davidson, M. and Friedman, R. A. (1998). "When Excuses Don't Work: The Persistent Injustice Effect Among Black Managers", *Administrative Science Quarterly*, Vol. 43, No. 1, pp. 154-183.
- de Lauretis, T. (1986). *Feminist Studies, Critical Studies*, Indiana University Press, Bloomington.
- DeVault, M. L. (1995). "Ethnicity and Experience: Racial-Ethnic Knowledge in Sociological Research", *Gender and Society*, Vol. 9, No. 5, pp. 612-631.
- Foucault, M. (1979), *Discipline and Punishment: The Birth of the Prison*, Vintage Books, New York.
- Freeman, H. and Aspray (1999). *The Supply of Information Technology Workers in the United States*, Computing Research Association, Washington, DC.
- Friere, P. (1970). *Pedagogy of the Oppressed*, Continuum Press, New York.
- Frye, M. (1983). "Oppression" in *The Politics of Reality: Essays in Feminist Theory*, Crossing Press, Freedom, CA.
- Gates Jr., H. L. and West, C. (1996). *The Future of the Race*, Vintage Books, New York.
- Gefen, D. and Straub, D. W. (1997). "Gender Differences in the Perception and Use of E-mail: An Extension to the Technology Acceptance Model", *MIS Quarterly*, Vol. 21, No. 4, pp. 389-400.

- Glaser, B. and Strauss, A. (1967). *The Discovery of Grounded Theory: Strategies for Qualitative Research*, Aldine, New York.
- Haraway, D. (1991). "Situated Knowledges: The Science Question in Feminism and the Privilege of Partial Perspective", in Haraway, D. (Ed.) *Simians, Cyborgs and Women: The Reinvention of Nature*, Free Association Books, London.
- Harding, S. (1987). *Feminism and Methodology: Social Science Issues*, Indiana University Press, Bloomington.
- Harding, S. (1991). *Whose Science? Whose Knowledge? Thinking from Women's Lives*, Cornell University Press, New York.
- Harding, S. (1997). "Comment on Hekman's "Truth and Method: Feminist Standpoint Theory Revisited": Truth and Method", *Signs: Journal in Culture and Society*, Vol. 22, No. 2, pp. 367-375.
- Hartsock, N. (1997). "Comment on Hekman's "Truth and Method: Feminist Standpoint Theory Revisited": Truth or Justice?" *Signs: Journal in Culture and Society*, Vol. 22, No. 2, pp. 367-374.
- Hekman, S. (1997). "Truth and Method: Feminist Standpoint Theory Revisited", *Signs: Journal in Culture and Society*, Vol. 22, No. 2, pp. 341-367.
- Henwood, F. (2000). "From the Women Question in Technology to the Technology Question in Feminism: Rethinking Gender Equality in IT Education", *The European Journal of Women's Studies*, Vol. 7, pp. 209-227.
- hooks, b. (1984). *Feminist Theory: From Margin to Center*, South End Press, Boston.
- hooks, b. (1989). *Talking Back: Thinking Feminist, Thinking Black*, South End Press, Boston.
- hooks, b. (1995). *Killing Rage*, Henry Holt and Company, New York.
- hooks, b. (2000). *Feminism is for Everybody*, South End Press, Boston.
- Igbaria, M. (1995). "Race Differences in Job Performance and Career Success", *Communications of the ACM*, Vol. 38, No. 3, pp. 82-92.
- Igbaria, M. and Chidambaram, L. (1997). "The Impact of Gender on the Career Success of Information Systems Professionals: A Human Capital Perspective", *Information Technology & People*, Vol. 10, No. 1, pp. 63.
- Kendell, I. (1999). "That Single-Mother Element: How White Employers Typify Black Women", *Gender and Society*, Vol. 13, No. April, pp. 168-192.
- Kvasny, L. (2003a). "Liberation or Domination: Understanding the Digital Divide from the Standpoint of the 'Other'", *Proceedings of the Information Resources Management Association (IRMA) Conference*, (Ed, Medhi, K.) Idea Publishing Group, Hershey, PA.
- Kvasny, L. (2003b). "Triple Jeopardy: Race, Gender and Class Politics of Women in Technology", *Proceedings of the 2003 ACM SIGMIS Conference on Freedom in Philadelphia: Leveraging Differences and Diversity in the IT Workforce*, (Ed, Trauth, E.) ACM Press, New York, NY, pp. 112-116.
- Lee, P. C. B. (2002). "The Social Context of Turnover Among Information Technology Professionals", *Proceedings of the 2002 ACM SIGCPR Conference on Computer Personnel Research*, ACM Press, New York, NY, pp. 1-13.
- Luke, S. (1974). *Power: A Radical View*, Macmillian, London.
- McGrath Cohoon, J. (2001). "Toward Improving Female Retention in the Computer Science Major", *Communications of the ACM*, Vol. 44, No. 5, pp. 108-114.
- Miles, M. and Huberman, A. (1994). *Qualitative Data Analysis*, Sage Publications, Thousand Oaks.
- Morgan, A., Quesenberry, J., and Trauth, E.M. (2004). "Exploring the Importance of Social Networks in the IT Workforce: Experiences with the 'Boy's Club'", *Proceedings of the Americas Conference on Information Systems*, New York, NY, pp. 1313-1320.
- National Science Foundation (2001). "Information Technology Workforce (ITWF) Program Announcement", Directorate of Computer and Information Science and Engineering, Division of Experimental and Integrative Activities, Washington D.C.
- National Science Foundation (2003). "Information Technology Workforce (ITWF) Program Solicitation", Directorate of Computer and Information Science and Engineering, Division of Experimental and Integrative Activities, Washington D.C.
- Nkomo, S. (1992). "The Emperor Has No Clothes: Rewriting 'Race in Organizations'", *Academy of Management Review*, Vol. 17, No. 3, pp. 487-513.
- Oguibe, O. (1996). "Forsaken Geographies: Cyberspace and the New World 'Other'", Paper presented at the *5th International Cyberspace Conference*, Madrid.
- Omi, M. and Winant, H. (1986). *Racial Formation in the United States: From the 1960s to the 1980s*, Routledge and Kegan Paul, New York.

- Orbe, M. (1998). "An Outsider Within Perspective to Organizational Communication: Explicating the Communicative Practices of Co-Cultural Group Members", *Management Communication Quarterly*, Vol. 12, No. 2, pp. 230-279.
- Reissman, C. K. (1987). "When Gender is not Enough: Women Interviewing Women", *Gender and Society*, Vol. 1, pp. 172-207.
- Reissman, C. K. (1993). *Narrative Analysis*, Sage, Newbury Park.
- Reskin, B. F., McBrier, D. B. and Kmec, J. A. (1999). "The Determinants and Consequences of Workplace Sex and Race Composition", *Annual Review of Sociology*, Vol. 25, pp. 335-361.
- Sawyer, S. and Tapia, A. (2003). "The Computerization of Work: A Social Informatics Perspective", in George, J. (Ed.) *Computer and Society: Privacy, Ethics, and the Internet*, Prentice Hall, New York.
- Sowell, T. (1994). *Race and Culture*, Basic Books, New York.
- Sumner, M. and Kay, W. (2001). "The Impact of Gender Differences on the Career Experiences of Information Systems Professionals", *Proceedings of the 2001 ACM SIGCPR Conference on Computer Personnel Research*, ACM Press, New York, NY, pp. 125-133.
- Sumner, M. and Niederman, F. (2002). "The Impact of Gender Differences on Job Satisfaction, Job Turnover, and Career Experiences of Information Systems Professionals", *Proceedings of the 2002 ACM SIGCPR Conference on Computer Personnel Research*, ACM Press, New York, NY, pp. 154-162.
- Tapia, A., Kvasny, L. and Trauth, E. (2004). "Is there a Retention Gap for Women and Minorities? The Case for Moving In vs. Moving Up", in Igbaria, M. (Ed.) *Strategies for Managing IS/IT Personnel*, Idea Group Publishing, Hershey, PA, pp. 143-164.
- Trauth, E. M. (2002). "Odd Girl Out: An Individual Differences Perspective on Women in the IT Profession", *Information Technology & People*, Vol. 15, No. 2, pp. 98-118.
- Venkatesh, V. and Morris, M. G. (2000). "Why Don't Men Ever Stop to Ask for Directions? Gender, Social Influence, and Their Role in Technology Acceptance and Usage Behavior", *MIS Quarterly*, Vol. 24, No. 1, pp. 115-139.
- Venkatesh, V., Morris, M. G. and Ackerman, P. L. (2000). "A Longitudinal Field Investigation of Gender Differences in Individual Technology Adoption Decision-Making Processes", *Organizational Behavior and Human Decision Processes*, Vol. 83, No. 1, pp. 33.
- Woszczyński, A., Myers, M., and Beise, C. (2004). "Issues for Women and IT", In M. Igbaria & C. Shayo (Eds.) *Strategies for Managing IS Personnel*, Hershey, PA: Idea Group Publishing, 165-193.

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Themes	Representative Questions
Motivation for learning about IT	<p>In your opinion, why do people participate in this IT program?</p> <p>What is at stake if you do not learn about IT?</p>
Challenges & barriers to learning about IT	<p>What barriers and challenges did you face today as you prepared to come to class?</p> <p>As you move forward to leverage the IT skills that you've gained, what roadblocks or challenges do you face?</p>
Definitions of the Digital Divide	<p>In your own words, what is the digital divide?</p> <p>Is the digital divide an important issue for you and the people in your community? If so, why?</p>
Attitudes / Beliefs about IT	<p>What comes to mind when you hear the word 'computer'?</p> <p>What were some of your initial beliefs about computers when you first came to class?</p> <p>How have these initial beliefs changed as a result of your experience in this course?</p>
Value of the IT training and access	<p>How will you use your IT skills to improve your quality of life?</p> <p>Why are IT access and training valuable to you and/or your community?</p>

**Table 1: Themes from Interview Guide**