

# Minorities and the Digital Divide

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## INTRODUCTION

Information and communication technologies (ICT) such as the World Wide Web, e-mail, and computers have become an integral part of America's entertainment, communication, and information culture. Since the mid-1990s, ICT has become prevalent in middle- and upper-class American households. Companies and government agencies are increasingly offering products, services, and information online. Educational institutions are integrating ICT in their curriculum and are offering courses from a distance.

However, while some are advantaged by the efficiencies and convenience that result from these innovations, others may unwittingly become further marginalized by these same innovations since ICT access is not spreading to them as quickly. The "digital divide" is the term used to describe this emerging disparity. Government analysts argue that historically underserved groups, such as racial and ethnic minorities, rural and low-income communities, and older Americans, are at a distinct disadvantage if this divide is not closed because American economic and social life is increasingly becoming networked through the Internet (National Telecommunications and Information Administration, 1995). The digital divide is not only an American social problem. Digital divide issues are of concern in developing countries as well as in information technology marginalized communities within developed nations.

Over the last decade, access to ICT has increased for most Americans, but does this mean that the problem of the digital divide has been solved? Is further research in this area warranted or has the digital divide become passé? In this article, we take on these questions by first reviewing major issues and trends in digital divide research. We do so by reviewing the digital divide literature as it relates to one historically underserved group, namely African-Americans. Next, we present a conceptual framework that contrasts 1) social and technological access perspectives, and 2) asset-based/resource and behavioral/use perspectives. The paper concludes with our recommendations for future research opportunities for examining digital divide issues.

## BACKGROUND

There have been numerous definitions for the digital divide, government and industry reports about the digital divide, and competing interpretations of the statistics contained in these reports. For instance, the digital divide has been defined at the Whatis Web site as "the fact that the world can be divided into people who do and people who don't have access to — and the capability to use — modern information technology, such as the telephone, television, or the Internet." Others (PRNewswire, 2000) offer another definition: "arguably the single, largest, and segregating force in today's world. If it is not made a national priority, a generation of children and families will mature without these tools that are proving to be the key to the future."

Most of our knowledge about the digital divide in the U.S. is based on survey research on computer and Internet access in the home, at work, and in public places. The most cited statistics are found in the digital divide series produced by the U.S. Department of Commerce (National Telecommunications and Information Association, 1998, 1999, 2000, 2002). These studies have found that the divide cuts along the lines of ethnicity and race, geographic location, household composition, age, education, and income level. These and other studies have also documented that these gaps are persistent but closing (Goslee & Conte, 1998; Hoffman & Novak, 1998; Spooner & Rainie, 2001).

When we look at any particular demographic group, however, the analysis is much more complex and contradictory. For example, most research on the digital divide for African-Americans has centered on physical access to computers and Internet in the home, as well as technical skills to operate computers and information literacy skills to engage with content. These researchers have found that African-Americans are less likely to have ICT access and skills, even when controlling for other factors, such as income and education (Mossberger & Tolbert, 2003). The Pew Internet and American Life Project suggests that these gaps are closing, but African-Americans with access to the Internet do not go online as often on a typical day as whites do (Spooner & Rainie, 2000).

Blacks also tended to use ICT differently than other racial and ethnic groups. Novak, Hoffman, & Venkatesh (1997) summarize previous research on African-Americans with regard to different media as follows:

*African-Americans have the highest participation in radio and TV and the lowest participation in newspapers. In terms of our classification, it means that historically, they have participated in greater measure in entertainment-oriented technologies rather than in information oriented technologies. Previous studies have also shown that African-American ownership of telephones is lower than white ownership, which may be due in part to differences in income.*

They go on to theorize that culture helps to explain these results. African-Americans have found their social expression historically through the arts, and have been less successful in gaining entry to other dominant domains such as business, education, technical employment, and professional occupations. Culture may also help to explain Spooner & Rainie's (2000) observation that online African-Americans are 69% more likely than online whites to have listened to music on the Web, and are 65% more likely than online whites to have sought religious information on the Web. Music and spirituality has traditionally been integral components of African-American culture.

Although African-Americans may use ICT relatively less than other ethnic groups, they have more positive attitudes toward ICT than do similarly situated whites (Mossberger & Tolbert, 2003). Kvasny (2003) found that working class African-American women believed that ICT skills would prepare them for higher paying jobs, and improved their parenting abilities. In a study of ICT adoption in community technology project, Youtie et al. (2002) found that African-American women were among the highest adopters of cable TV-based Internet devices.

Although African-Americans harbored favorable attitudes towards ICT, these same technologies may have little impact on social inclusion. In a more recent study, Sipior, Ward, Volonino, & Marzec (2004) examined the digital divide in a public housing community in Delaware County, Pennsylvania. With 31 African-American participants with ages ranging from 13-65, these researchers concluded that effective community-based programs could help reduce the divide. While these interventions notably have improved computing skills about underserved groups, a one-time shot fails to eliminate or even reduce broader feelings of cultural isolation and economic deprivation among minority groups.

## MAJOR ISSUES

When analyzing the digital divide literature, one of the foremost issues is whether a gap still exists. For example, in an article titled "True Nature of the 'Digital Divide' Divides Experts" (Jerding, 2000b), four technology watchers provided radically different standpoints. Mark Lloyd, an executive of the Civil Rights Forum on Communications Policy, states that technology inequality is the latest in a history of economic gaps. In his view, although private enterprise has put forth altruistic efforts, "real government action" was needed to bridge this void. Rick Weingarten, the director of the Office for Information Technology Policy, states that being connected wouldn't solve the problem. What is really at stake is the quality of access such as high-speed access and complex information literacy skills. Professor Jorge Schement believes that the digital divide will persist until Americans can put a face on the problem. So long as this is seen as a problem of the "Other," it can be more easily ignored and rationalized. The final panelist, Adam Clayton Powell II, denies the existence of a digital divide. Using the National Telecommunications and Information Administration studies, he argued that the gap between ethnic groups has dissipated. For him, the digital divide is largely a myth, and education rather than race or ethnicity was the highest barrier to technological access and effective use.

We contend that these debates about the existence of the digital divide result from a rather narrow treatment of a complex social phenomenon. In fact, many of the newer studies in this genre call for a rethinking of the digital divide (Warschauer, 2002; Gurstein, 2003; Hacker & Mason, 2003; Kvasny, 2003; Payton 2003). In what follows, we organize a discussion of the current trends in the digital divide discourse. We do so through a framework (Table 1) that contrasts two perspectives of access (technological and social) and two perspectives of use (asset-based and behavioral). Technological access focuses on the computing artifact, while social access focuses on know-how and competence. Asset-based perspectives view the divide as a deficiency in requisite resources, such as income or education, that enable ICT use, while behavioral perspectives tend to focus on the effectiveness of ICT use. Although these perspectives are presented as separate categories, authors tend to draw from both categories. For instance, the argument that the digital divide is based upon a lack of access to computing artifacts and computer skills suggests a technological access/asset-based perspective. An argument that the digital divide emerges from a lack of understanding about how to use ICT to further life chances adopts a social/behavioral perspective.

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