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## Internet Use and Environmental Justice: An Exploratory Study

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INTERNET USE AND ENVIRONMENTAL JUSTICE: AN EXPLORATORY STUDY

A Dissertation

Submitted to the Graduate Faculty of the  
Louisiana State University and Agricultural  
and Mechanical College  
in partial fulfillment of the  
requirements for the degree of  
Doctor of Philosophy

in

The Manship School of Mass Communication

by

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## **ABSTRACT**

My study examined how inner-city adults perceive and experience the Internet as a civic engagement tool, and if they view the Internet as a tool for environmental advocacy. Research shows a consistent divide between those with Internet access and those without. Individuals living in low-income minority communities are the least likely groups to be Internet connected. Consequently, the Internet could further separate historically marginalized communities from important government and social resources rather than bringing them closer.

Qualitative research methods were used to reveal socially-constructed perceptions of the Internet as a civic engagement tool in the inner city. Grounded theory techniques helped develop a solid final interpretation. My objective was not to compare low-end of the divide users with more affluent users but to broadly explore whether inner city adults perceive the Internet as a tool for environmental advocacy.

My findings revealed problems of crime, drugs and violence as a result of persistent unemployment in the inner city far outweigh concerns of environmental risks. Overall, participants were confident in their ability to solve local problems and bridge with local organizations, but they feared retaliation, community apathy, and misplaced priorities would keep them from achieving their goals. Participants preferred face-to-face communication for mobilizing support and media for staying informed. Experienced users viewed the Internet as a valuable information-seeking tool.

Participants viewed the Internet in positive and productive ways that helped them with school, employment, and important personal matters. Noticeably absent from the findings was participants' view of the Internet as a communication technology. Finally, the primary barriers to Internet access in the community were costs, personal time, insufficient public access, and

navigation problems. For important matters, though, participants found ways around barriers by reaching out to social support networks, including friends, family and co-workers.

My study contributes to both theory and practice. Diffusion of Innovation predicts adoption of new technologies based on certain attributes. Findings reveal relative advantage and compatibility of the Internet shapes participants' view of the Internet. The findings also offer important insight to environmental policy makers and civic leaders for engaging inner city residents in 21<sup>st</sup> century environmentalism.

## INTRODUCTION

There has been heightened interest from policy makers and academics over the effects of those who lack access to the Internet. Notable studies have risen from this inquiry and policies introduced. Together, they have begun to explain and address unequal adoption patterns and use of the Internet. The literature, however, is less inclusive of people who live in communities that lack access. More research including these individuals is therefore warranted.

My study focuses on how inner-city adults perceive and experience the Internet as a civic engagement tool, and if they view the Internet as tool for environmental advocacy. Knowing environmental problems may not be perceived as a priority in all urban areas I did not limit my research to this problem, but remained open to other social justice issues. I interviewed 44 adults who shared their experiences and perceptions of problems in their community and how they would effectively solve them. I specifically focused on their perceptions and use of the Internet for community advocacy, and barriers they believed kept them from joining the online world. The objective of my study was to explore the broad topic of Internet use in solving problems unique to the inner city in a manner that prompts further research in this area. I therefore asked more rather than fewer questions to gain a broad understanding of this relatively new inquiry.

Information and communication technologies have always been important political, social, and economic resources that shape how people interact, but they are not always evenly distributed (Norris, 2001; NTIA 1995, 1999, 2000, 2002). In developing countries the Internet has spread rapidly and has become deeply embedded into people's work, family, political and personal lives (Chadwick, 2006). The rapid diffusion of the

Internet has changed how people interact and obtain information, distribute and create content, and participate in democracy (Bucy & Newhagen, 2004; Burnett & Marshall, 2003). For many communities the Internet's growth has been positive. For other communities this growth has been mostly negative, by serving as a tool that further separates them from important social, political, and economical resources (Norris, 2001). The term I use in my study is what scholars widely use to describe this division: the *digital divide*, or the difference between those with access to the Internet and those without.

Research calls attention to the potential effects of a digital divide on historically marginalized communities. In her pioneering work *Digital Divide: Civic Engagement, Information Poverty, and the Internet Worldwide*, Norris (2001) contends the increasing role the Internet now plays in peoples' lives, their work, and leisure makes it even more important to examine the effects on less fortunate communities and understand more fully how "certain groups and areas are systematically excluded, such as poorer neighborhoods, working-class households, or peripheral rural communities" (p. 10). Others agree and believe the digital divide is simply "a useful shorthand term for the persistent inequalities that exist between the information rich and the information poor" (Chadwick, 2006, p. 49).

Countless studies have examined the digital divide beginning with the Department of Commerce's landmark report: *Falling Through the Net*. This comprehensive study brought early attention to the divisions between those with and without Internet access. Since then, the Pew Internet & American Life Project has produced volumes of data that have tracked emerging Internet use trends. The combined studies reveal a clear and

persistent divide, one defined by demographic and socio-economic conditions, primarily levels of education and income. Race, however, should not be systematically excluded even though the gap appears to be lessening. This is particularly true for understanding Internet use in our poor inner cities where the divide is most pronounced and more than half of all residents are African American or Hispanic (Norris & Conceicao, 2004).

An equal amount of research has been devoted to uncovering the causes behind the divide. What this research reveals is the digital divide is not a matter of simple access (or lack of) to computer hardware and network connections. Instead, the combined studies show the digital divide to be quite complex. For example, skills, cultural influences, and what information one accesses online can all contribute to the divide (Besser, 2001; Bucy & Newhagen, 2004; Horrigan & Raine, 2006; Newhagen & Rafaeli, 1996; Riggs, Vinson, & Lauters, 2001). I discuss these and other relevant studies in more depth in the following section, as they raise important and relevant issues to examining the divide in the context of environmental advocacy in historically marginalized communities. At a minimum, the studies' varying claims and sometimes contradictory results necessitate a closer look, particularly among groups who remain on the low end of the divide.

Of particular interest to my study is residents' view of the Internet as a civic engagement tool. Civic engagement has become a popular online activity, and people are increasingly contacting government via the Internet (Norris, 2001; Horrigan, 2004). Knowing this, government is increasing its use of the Internet as a way to organize and share important public information. There are an estimated 870 U.S. government home pages (FirstGov.com, 2005). Each of these sites houses volumes of information and data

providing greater access to agency dealings than in the past. The Environmental Protection Agency is among those government agencies capitalizing on what the Internet has to offer. This improved level of transparency helps agencies like the EPA communicate important facts from lead paint and toxic mold to toxic releases and air quality. Public hearings and other community announcements are also regularly posted. While EPA still uses other methods for communicating with the public, the Internet Web pages increasingly serve as a channel for reaching communities of interest and as an efficient central repository for large amounts of government data. It is important to note here, that not all residents have the resources (e.g., Internet) to benefit from this new level of civic engagement, and it is the same groups that have been historically marginalized from the environmental movement.

Not until the early 1980s was attention given to the fact that low-income communities of color were frequently targets of a disproportionate amount of pollution, including threats from hazardous waste landfills, polluting factories, and other toxic chemicals (Cox, 2006). From this time forward, a new movement was afoot calling for greater environmental justice for all U.S. residents, namely low-income minority communities – communities that had been largely absent up to this point in decisions that affected them. Subsequently, efforts have ensued to engage communities of color and to give them a greater voice. Many of these efforts continue today (U.S. EPA Environmental Justice Division, 2006). Cox (2006) provides a three-part definition that summarizes this historical movement:

The term [environmental justice] refers to (1) calls to recognize and halt the disproportionate burdens imposed on poor and minority communities by environmentally harmful conditions, (2) more inclusive opportunities for those who are most affected to be heard in the decisions made by public agencies and

the wider environmental movement, and (3) a vision of environmentally healthy, economically sustainable communities (p. 321).

Today, a number of policies and directives guide EPA's environmental justice work within the U.S. government (Parris, 2005). And while there is no formal process for designating environmental justice communities, there is broad acknowledgement that low-income communities of color are where most of the injustices occur (Cox, 2006). Once again, the very same areas where the digital divide is most pronounced. Therefore, as the environmental justice movement predates the rapid growth of the Internet as a home communication technology, new and important questions abound about how the digital divide will affect historically marginalized communities, and whether they can achieve fair and equal representation as civic engagement moves online.

Conceptually, my study will examine citizens' collective influence through what Habermas (1989) refers to as the *public sphere*. It is through this imaginary structure where citizens have a voice – a place where they can exchange ideas, communicate their concerns, and ultimately influence those in power. Technology historically has played a central role in citizens' capacity to communicate within and outside this influential sphere; increasingly that technology includes the Internet (Chadwick, 2006). With that in mind, I will draw upon this concept of a new cyber public sphere for studying 21<sup>st</sup> century environmental advocacy in our inner cities. Specifically, I will examine the role technology (e.g., the Internet) plays in keeping citizens informed and helping them mobilize support, while noting the impediments and opportunities presented to communities of color.

As a final note, my study acknowledges not all citizens are born social advocates or believe they can affect change. Consequently, some citizens will refrain from



participating in the public sphere despite access to technology. Therefore, I also explore whether participants possess sufficient levels of *social capital* – efficacy, confidence, and other pre-conditions to public participation, and account for this in my analysis of inner city environmental advocacy.

A review of the literature revealed no single definition of social capital. Putnam (2000), for example, describes it as a belief that one's participation in civic matters will make a difference. The World Bank (2000) defines it more broadly as the norms and social relations embedded in the social structure of societies that enable people to coordinate action to achieve desired goals. Others, like urban sociologist Mitchell Duneier (1992) believe social capital is relative, and in poor working class neighborhoods can be evidenced through a person's occupation and group belonging. And Xavier de Souza Briggs (in Putnam, 2000, p. 21) reminds us that not all forms of social capital are positive. While my study will consider and look for evidence of social capital, both positive and negative, I will not begin with a particular definition. Instead, I will account for the broad and varied definitions of social capital by searching for evidence through participant discussions and then relating it back to the literature on the topic.

My study is not an analysis of how those on the low end of the divide compare to sufficiently wired communities. It also is not an analysis of how all individuals, groups, or communities on the low end of the divide perceive and use the Internet. Rather, it is a broad exploration of whether adults living in the inner city perceive or use the Internet as a tool for environmental advocacy. I have found only a few studies that examined individuals, groups or neighborhoods where Internet use is low. Together, the relatively small number of studies revealed appreciably different findings than those that examined

experienced Internet users. Consequently, they found Internet use is highly contextual and socially complex, therefore necessitating a broader exploration among these groups.

Altogether, my research addresses limitations in our current understanding of individuals' perception and use of the Internet by analyzing an understudied group of adults in two important areas: Internet use and environmental advocacy. The exploration of this group's behavior and beliefs related to Internet use will give scholars and policy makers a better understanding of how emerging technologies affect historically marginalized communities from advocating important social problems like environmental pollution.

I begin by explaining my approach to the literature review and its role in my research. I then discuss the related literature on Internet diffusion patterns, defining digital divide characteristics, barriers to access, and social capital and the Internet. I end with an overview of the theoretical framework that guided my study.

## **REVIEW OF RELEVANT LITERATURE**

### **Overview**

A broad view of the literature shows a majority of studies have focused on the technological elite – those with the technical and cognitive resources to take full advantage of the Internet. In a short period of time, countless studies have wielded volumes of data profiling characteristics of Internet users, their online likes and dislikes, and new user trends. New online data collection has added to this growth making it easier to reach and to survey active Internet users. As a result, we now have an impressive amount of data that tell us a great deal about consumer online habits, interactivity effects, psychological factors, and other phenomena associated with Internet use. Yet despite this concerted effort to better understand Internet use and its influence on society, we have generated only a modest amount of data from those living on the low end of the divide – citizens who arguably could benefit the most from the technology (Bucy & Newhagen, 2004; Grabe & Kamhawi, 2004; Silver, 1999). And we know even less about the role and impact of this new technology on grassroots environmentalism (Kutner, 2000). Steps to redirect the current research agenda and broaden participation among these groups will move us one step closer to achieving universal Internet access and/or more effective civic involvement.

The following literature review served only as a foundation and initial guide for my study. The review helped me recognize explicit subtleties that later led to theoretical links in the data (Charmaz, 2006). My analysis was not limited to this initial review; rather, it incorporated additional studies as necessary based on the direction my data took. Direct links to the literature are noted and discussed in the Results and the Summary and

Conclusions chapters. What follows is an initial review of major works on Internet use and the digital divide that laid the groundwork for my study of environmental advocacy in historically marginalized communities.

I begin with a discussion of the Internet's diffusion into American society and the resulting digital divide. Next, I present a brief overview of the socio-economic breakdown that characterizes the divide. I then follow with a discussion of contemporary studies related to online civic engagement, social capital, and their impact to future environmental advocacy. Finally, I present the theoretical framework that guides my study, diffusion of innovation, and the specific research questions that directed my initial inquiry.

### **Diffusion of the Internet into American Culture**

Few technologies have diffused as quickly as personal computers and the Internet (Burnett & Marshall, 2003). Even fewer have become so deeply ingrained into so many aspects of people's social, civic and economic lives (Burnett & Marshall, 2003; Chadwick, 2006). One of many reports, *A Nation Online: How Americans Are Expanding Their Use of the Internet*, underscores Americans' ever increasing use of new information technologies at home, work, school, and other locations for a variety of purposes. Since its public debut in 1994, when Netscape browser provided public access to the World Wide Web, the Internet has experienced widespread adoption (Burnett & Marshall, 2003). In less than a decade, it radically changed how people socially interact, conduct business, and attain important information (Pew Internet: The Mainstreaming of Life Online, 2005).

The Pew Internet & American Life Project provides one of the most comprehensive views of American's use of the Internet. Extensive survey data reveal important socio-economic factors and trends that help define the divide in the United States. In 2006, 73 percent of American adults were online representing a 10 percent increase from 2004 and a 37 percent increase from 2000 (Pew Latest Trends, 2006; Pew Internet: The Mainstreaming of Online Life, 2004). The composition of users initially began as predominantly young, white males with higher incomes and education. Over time, however, the gap began to close, especially for women, seniors, and some minorities (Pew Internet: The Mainstreaming of Online Life, 2005). Despite this apparent leveling trend among these groups, a divide remains, and income, race and education continue to be important indicators of who has Internet access (Pew Latest Trends, 2006; Fox, 2005).

Even as Internet adoption rates peaked for most groups, a new divide began to emerge as advanced Web-based programs started requiring upgraded hardware (Fox, 2005; Madden & Rainie, 2003). Most notable was the need for high-speed connections to accommodate a growing number of graphic intense Web sites, which could only be accessed by upgrading to new, sometimes costly services. As a result, those who could afford to switched from dial up to high-speed broadband connections at both work and home (NTIA, 2004). In less than a year, Americans home broadband connections rose from 60 million to 84 million, a 40 percent increase over a short period of time (Horriggan, 2006). As a result, those who acquired access through these high speed connections gained an advantage over those who had to operate at slower speeds (or not at all). These new high-speed users could now access larger information sources, such as streaming

video, and the capability to create and share online content (e.g, photos), activities not possible with slower connection speeds. Not surprisingly, research soon showed their investment had paid off, as higher connected individuals consistently reported greater satisfaction with their online experience (Pew Internet: The Mainstreaming of Online Life, 2005).

Rapidly emerging new Internet-based technologies continue to raise new questions about the future of the digital divide. For most people in the United States the Internet has been mainly accessed through personal computers at home or work. Expanding wireless connectivity, however, is increasing the use of laptops, cell phones, and personal digital devices at a steady pace. In contrast to physically bound and harder-to-access personal computers, these new technologies provide close, personal, universal access, which is increasingly broadening ways people use the Internet (Pew Internet: The Mainstreaming of Online Life, 2005). While it is unclear how these evolving technologies will affect the divide, they likely will fuel a growing dependency on the Internet as people increasingly count on them for completing basic everyday tasks.

“When a system’s structure is already very unequal, the consequences of an innovation (especially if it is a relatively high-cost innovation) will lead to even greater inequality in the form of wider socioeconomic gaps” (Rogers, 2003, p. 471). As the data show, and the next section will reveal, there is a notable socio-economic gap in Internet adoption and use patterns. These are the same socio-economic factors that mark a number of other social inequalities (e.g., environmental justice) (Cox, 2006). What the data do not show are the consequences resulting from the rapid diffusion of the Internet and its deep penetration into mainstream society. To understand the full impact of the Internet on

society one must look at those who are not on-line – the remaining 27 percent who have decided not to adopt or have abandoned the Internet altogether. It is within these groups where the Internet's diffusion will have the greatest impact over time as the technology plays an increasingly vital role in people's lives (Norris, 2001).

## **Digital Divide**

### **Socio-economic Factors**

The NTIA report, *Falling through the Net* (1995), first brought widespread attention to the digital divide within the United States calling it one of America's leading economic and civil rights issues. Despite increasing numbers of Internet-connected Americans, it showed a fairly persistent divide that could widen over time (NTIA, 1999). Among those most affected, were minorities, low-income families, and children of single-parent households living in central cities and some rural areas.

Six years later and somewhat consistent with NTIA's predictions, the Pew Internet & American Life Project released an in-depth report showing current digital divisions. Added to its list of groups lagging behind was Americans age 65 or older. Race and education again were factors defining the divide. The comprehensive report estimated:

- 26 percent of Americans age 65 and older go online compared with 67 percent of those who are 50 – 64, 80 percent of those age 30-49, and 84 percent of those who are 18-29.
- 57 percent of African Americans go online compared to 70 percent of whites.

- 29 percent of those who have not graduated from high school are offline compared to 61 percent of high school graduates and 89 percent of college graduates (Fox, 2005).

Additional reports showed similar divisions while also focusing on the effects of income. In households with annual incomes under \$30,000, only 53 percent were Internet connected. This is compared to households making \$50,000 or more where the number jumps to 86 percent, and as high as 91 percent for those making over \$75,000 (Pew Latest Trends, 2006).

While age, income, education and race remained constant factors of the divide, the number of people offline also remained the same. Collectively, and over time, these large-scale studies reflected a persistent divide among certain groups primarily based on age, income, and education as indicated in Table 1.

Table 1 Demographics of Internet users

**Demographics of Internet Users**  
(percentage of each group who use the Internet based on a 2006 survey)

		Use the Internet
TOTAL ADULTS		73%
Women		71
Men		74
Age		
18-29		88%
30-49		84
50-64		71
65+		32
Race/ethnicity		
White, Non-Hispanic		73%
Black, Non-Hispanic		61
English-speaking Hispanic		76
Household income		
Less than \$30,000/yr		53%
\$30,000-\$49,999		80
\$50,000-\$74,999		86
\$75,000+		91
Educational attainment		
Less than high school		40%
High school		64
Some college		84
College+		91

Source: Pew Internet & American Life Project 2006 Tracking Survey



As shown, a number of aggregate surveys have revealed certain persistent factors that tell researchers who are most likely to reside on the low end of the divide. The data are particularly relevant to this inquiry because some of these same groups of individuals face environmental inequalities as well. These studies, however, reveal very little about what keeps these groups of individuals offline and from benefiting from the informational resources and knowledge that others are gaining through widespread and long-term use of the Internet. Understanding barriers to Internet access would reveal more about individual attitudes and behaviors of those who choose not to adopt and what changes in technology might reverse their decision. Additional studies would push current research beyond the raw data these studies have produced, which emphasize socio-economic status as root causes of the divide. More often than not, these large scale quantitative studies have dominated our understanding of the divide even though more critical aspects are being uncovered (Bucy & Newhagen, 2004; Grabe & Kamhawi, 2004; Grabe, Lang, Zhou & Bolls, 2000).

### **Internet Access**

“A critical difference between universal service and the digital divide is that the communications technologies of yesteryear were less complex and skill-intensive than modern telecommunications and computing” (Youtie, Shapira & Laudeman, 2004, p. 133). Overall, media scholars have given a fair amount of attention to the topic of media access. Broadly, they recognize Internet access requires more than network connectivity and depends on more than a person’s educational and economic background. Cognitive, psychological, social, and cultural factors are equally important variables for understanding personal limits to Internet use (Barbatsis, Camacho & Jackson, 2004; Bucy

& Newhagen; 2004; Lawson Mack; 2001; Norris, 2001). Bucy and Newhagen (2004)

emphasize the cognitive demands required of Internet users in this statement:

Unlike traditional media, the Internet confronts the user with communication opportunities across a wide range of levels (e.g., interpersonal, group, organization, mass) all at the same time – and frequently on the same screen. Online, the user enters a decision-intensive environment. Even when the Internet is used as a mass medium, the experience differs significantly from old media because of technical competence and literacy levels required. Simply put, the Internet presents cognitive barriers that traditional media do not. Further confounding the problem, those barriers may be driven by factors within the user's social and cultural milieu. (p. x)

Despite critics' call for a deeper understanding of the divide, the idea of technological access has largely dominated policy makers thinking about the digital divide, too often prompting simple and quick solutions to the problem. As a result, inferences are sometimes drawn on variables of age, education, gender, income, and race while deeper barriers are altogether missed (Bucy & Newhagen, 2004).

Newhagen and Bucy (2004) identify two primary routes to Internet access: 1) *cognitive access*, which includes psychological, efficacy, and cultural barriers and 2) *technical access*, which includes physical access to hardware, software and infrastructure, and the skills to use them. Broadly speaking, cognitive access consists of the psychological resources the user brings to the computer and influences how they process information and problem solve once online. Others have broken down these barriers to include: *mental access* (computer anxiety, lack of motivation), *material access* (hardware possession), *skills access* (strategic, informational, digital skills), and *usage access* (different applications) (van Dijk, 2004). Several studies have examined and documented these subtle dimensions that show not a single, but a multi-dimensional view of Internet access (Attewell, 2001; DiMaggio, Hargittai, Neuman & Robinson, 2001; Jackson,

Barbatsis, Biocca, von Eye, Zhao & Fitzgerald, 2004; Kling, 1998; McCrery & Newhagen, 2004).

Internet applications, such as the World Wide Web, present unique and complex barriers unrelated to more traditional media and communication technologies. Burnett and Marshall (2003) characterize this new technology as a *loose Web* to describe the complexity and convergence of multiple forms of communication. Simply put, convergence and technological advancements demand more from the user than previous technologies creating new and unique barriers to access (Burnett & Marshall, 2003). Cognitive skills, or the ability to effectively process information once online, are among the barriers being examined.

On the surface it would seem the amalgamation of vast information sources onto a single platform, and the ability to interact with those sources, would result in effectual use of Internet-based applications. On the contrary, studies are finding a considerable cognitive, psychological, and social cost associated with Internet use, which requires more patience and expertise on part of the user (Bucy & Newhagen, 2004). For instance, one study found users spend more time orienting themselves to a particular online site than elaborating on the information they found (Eveland & Dunwoody, 2000). Similarly, users accessing highly interactive news sites have reported higher levels of frustration and lower levels of information retention due to excessive cognitive demands placed on them (Bucy, 2004). Evidence also shows less educated people are less efficient in processing online information raising new questions about a widening knowledge gap (Grabe & Kamhawi, 2004). Except for the latter study, data on cognitive barriers largely reflect the circumstances of sufficiently skilled Internet users. As a result, solutions most

likely will be aimed at improving Internet use for those already engaged and underestimate barriers facing less frequent users. Grabe and Kamhawi (2004) bring important recognition to this oversight:

It is precisely because cognitive access to the Internet appears to be a demographically discriminatory phenomenon that this new medium is the subject of public debate and deserves the urgent and continued attention of scholars in mass communication and other fields. That said, variables traditionally associated with individual differences, such as emotion and cognition, might provide more nuanced insight into the aggregate findings for demographic inequity in Internet access. (p. 28)

The idea physical access is sufficient to closing the divide is further underscored by other factors contributing to individual Internet use. For example, Bessiere, Ceaparu, Lazar, Robinson and Shneiderman (2004) have linked low self-efficacy to user frustration causing some people to give up and abandon the technology altogether. Others studies have linked personality traits, self-efficacy, motivations, apprehensions, insufficient technical skills, and cultural and social pressures to unsatisfactory Internet use (Finn & Korukonda, 2004; Hofstetter, 2004; McCrery & Newhagen, 2004; van Dijk, 2004). Collectively, these findings have brought broad recognition to these deeper barriers to media access and have prompted a more earnest effort toward examining these less overt personal traits. Additional relevant studies are summarized in the following statements and discussed in the following section:

- The content divide reinforces the physical access divide. By creating more diverse and relevant content, disadvantaged groups are more likely to be interested in acquiring the necessary skills (Carvin, 2000).

- Lack of elementary digital experience appears to be caused by a lack of interest, computer anxiety, and unattractiveness of the new technology (van Dijk, 2004).
- Variations in personality traits and gender are at least moderately linked to diverse attitudes about computers that may, in effect, determine their use (Finn & Korukonda, 2004).
- Marginalized youth refrain from embracing the full capacity of the Internet believing that computer access was not their own (Rojas, Straubhaar, Roychowdhury & Okur, 2004).
- African Americans remained offline, in part, due to a historical lack of trust in the technology and new concerns over racism and privacy with the Internet (Lawson Mack, 2001).
- People make sense out of the Internet as it relates to their specific cultural world. African Americans do not believe that they are accurately represented (Hoffman & Novak, 1998).

While few studies point to deeper cognitive and cultural-specific barriers, the vast majority of Internet research has focused on individuals who are at least moderately experienced users. Less well documented is the continuing separation between marginalized cultural and racial groups whose low usage rates may be compounded by unemployment, homelessness, poor health, and cognitive limitations (Newhagen & Bucy, 2004; Silver, 1999). Some of the studies, which include these participant groups, are discussed next and collectively lay the groundwork for this present study.

## **Cultural Considerations**

Because the majority of research has been based on survey-type endeavors and are biased toward more experienced Internet users, they have not been particularly useful in obtaining the viewpoint of the truly disconnected. Furthermore, the vast majority of studies examining individual and aggregate cognitive effects have not focused on one specific cultural group or within a meaningful context as my study will. The research, however, has revealed notable cultural differences and begins to explain how these groups perceive new communication technology. The following discussion focuses on those findings related to distinct cultural perceptions of the Internet and their online experience.

Some suggest that because the computer and the Internet ascended from a white male culture, and therefore speaks of that experience, certain minority cultures are not as quick to embrace it. Specifically, new media research shows “a significant disconnect between life experience of minorities and what the Internet offers of them” (Barbatsis, et al., 2004, p. 36). For those who are not connected, self-efficacy, trust, social influence, and lack of representation have been cited as common reasons for not going online (Barbatsis et al., 2004; Lawson Mack, 2001; Rojas et al., 2004; Walton, 1999). Based on the fact these barriers are less indicative of a lack of skills and more suggestive of social and cultural influence, some believe training alone may not be enough to bring culturally diverse communities online (Hoffman & Novak, 1998).

Studies that examine access do not account for a number of fundamental aspects of the digital divide (Rojas et al., 2004). From a case study of working class and poor Hispanics and African Americans, Rojas et al. (2004) found the social and cultural

barriers remained in place despite computer public access centers, Internet-connected schools and libraries, and computer training programs. Rather, people's perceptions of the Internet and computers were more likely to reflect their class habitus or cultural surroundings, including parents' and peers' opinions toward certain technologies. These shared orientations explained how people acquired and held certain opinions pertaining to Internet use suggesting the cultural surrounding has an equally strong effect in explaining the present divide.

In support of this finding, Riggs et al., (2001) examined minority working class women who revealed a seemingly unconventional view of the Internet. They found elderly African American women viewed the Internet in two ways: first, as means for self-employment and second, as an educational tool for their children and grandchildren. Jackson, et al., (2004) also found similar perceptions of the Internet among African American adults living in low-income communities where they, too, viewed the computer as more of a functional tool than a social one. Collectively, these studies suggest that even after joining the online world some groups will likely approach and use the Internet differently based on their cultural experiences and what they believe they stand to gain from the technology.

The graphic nature of the Internet also appears to affect levels at which people embrace the Internet and their eventual decision to adopt the technology. For example, Barbatsis et al. (2004), in their study of how low-income African Americans made sense of their online experience, found that visual expectations and online misrepresentations were contributing to the divide. What they found was minority participants expected the Internet to address them visually and in an interpersonal way – a way that spoke of their

own cultural experience. Barbatsis et al. (2004) therefore charged that if the Internet could be more inclusive and relate to all people's experience in a more meaningful way, the gap would begin to close. However, as long as the Internet continues to visually reflect and speak to the experience of a predominantly white middle class majority it will continue to serve as a barrier for minority citizens.

Nakamura (2004), in her review of African American's Internet use habits, also established links between culture and unique online preferences. In her study, she found minorities to be quite selective in their Internet use and much more apt to seek information related to their own cultural experiences, such as online preferences for spiritual information, sports, and music – activities that tend to be, according to her, more culturally representative of these groups. Specifically, she states: "In the case of people of color, popular culture practices constitute a discursive domain where they are more likely to see cultural producers who resemble them" (Nakamura, 2004, p. 75).

Spiritual information also appears to drive online use in African American communities. In fact, African Americans seek spiritual and faith-based information online more than any other demographic group (Spooner, 2000; Hoover, Clark & Rainie, 2004). This is not surprising knowing the church, particularly the African American church and those serving disadvantaged communities, has historically had positive effects on political and social involvement (Alex-Assensoh & Assensoh, 2001; Holland & Carter, 2005). "Perhaps the Internet is functioning as a potential space for the religious beloved community in a way that might be compared to African American churches, which have long been a nexus of ethnic community and human connection" (Nakamura, 2004, p. 80).



The discussion of religion takes on a particularly important meaning for my study and should be noted. Research has linked religious organizations to positive influence for environmental activism among their respective congregants (Holland & Carter, 2005). In comparing ministers' actions and environmental actions of congregants, Holland and Carter (2005) found the two were positively correlated. Ministers who spoke to congregants about the environment and provided supplemental materials consequently experienced more environmentally active congregations (Holland & Carter, 2005).

Holland and Carter state:

Activity of respondents does not mean simply talking to the congregation, the more salient factors that impact congregational activities appear to be the leader or minister taking extra steps and maintaining an active environmental agenda like using extra materials to teach to the congregation and joining environmental groups themselves. (n.p.)

Internet users frequently cite religious Web sites as improving social involvement among both African Americans and whites (Larsen, 2004). Furthermore, public policy scholars believe a model program for increasing Internet awareness and encouraging Internet use begins at the community level where their role may be the most influential (O'Neil & Baker, 2003). This supports the theoretical notion that opinion leaders are important in influencing the diffusion of technologies (Rogers, 2003). Therefore, considering African American's on-line preferences, the churches positive link to environmental activism, and the influence of local opinion leaders, faith-based Internet sites could not only increase Internet use but also encourage environmental activism.

Finally, research shows trust influences Internet adoption, particularly among low and middle income groups (Huang, Keser, Leland & Shachat, 2003). For African Americans, Lawson Mack (2001) suggests the latest Internet trends are simply repeating

history where the same groups of people, mainly African Americans, are once again left behind. She cites reasons including access, ownership, and most importantly, a lack of trust in the technology. She states, “an aura of mistrust has developed in the Black community where matters of science and technology are concerned” (p. 23). According to her, online racism, exclusion from economic expansion, the legacy of oppression, and general mistrust of new technology is driving these feelings of mistrust among African Americans.

Although the Internet appears to offer many benefits to its user, research reveals some people express an inherent fear associated with Internet use, especially relating to their families, children, and community. In research examining low income families, Jackson, et al. (2004) found this concern influenced residents’ use of the Internet. For them “the Internet was potentially predatory and perilous” that revealed a “dark side” (p. 180). Consequently, for universal access to be achieved, Jackson et al. (2004) believed the “technology must go beyond more efficient ways to retrieve information to a better understanding of the mind of the user” (p. 180).

Research on the future of the Internet, in part, supports these claims of mistrust. Some, for example, believe the future Internet will strengthen extreme communities and produce political, religious, and violent zealots, who then will use their personal networks to avenge their cause (Fox, Anderson & Rainie, 2005). Spooner (2000) underscores the impact of trust on Internet use:

The positive attitudes of many non-users are tempered by fears that the Internet is a dangerous place, that its cost is beyond their reach, that its content holds little meaning for them, and that they do not want to waste precious time online. (p. 13)

As stated, this lack of trust is linked, at least in part, to income levels (Huang et al., 2003) but also to African American culture as discussed above, placing it within the context of the digital divide.

To summarize, cultural predictors of Internet use may include cultural and family influences and attitudes toward the Internet, online visual representation, varying online preferences, and a lack of trust and concern over the potential dark side related to fears of racism, child exploitation, and continued economic disparity. Because my study applies to perceptions of the Internet as a civic engagement tool among participants of similar backgrounds, the above studies establish a reasonable framework for studying participants' views and building stronger theoretical links. At a minimum, the collective review of literature related to cognitive and cultural barriers supports the need for additional research and a more thorough examination of how individual perceptions are shaped and influence behavior if future barriers to Internet access are to be resolved.

## **Online Civic Engagement**

### **E-Government**

The Internet increasingly “is perceived as a contributor to democracy and equality even though it is not accessible to nearly as many users as other mass media” (Nakamura, 2004, p. 72). Those who lack Internet access are often found in America’s minority urban centers (Norris & Conceico, 2004), and whites are still more likely to access the Internet than African Americans at all income levels (Fox, 2005). Lawson Mack (2001) notes the broader implications for these groups when she states:

A bitter irony is ... those groups that could most benefit from the information resources and convenience afforded by computers and Internet access are precisely the groups that are lagging behind. (Lawson Mack, 2001, p. xv)

According to Bandura (2000) new media such as the Internet will provide “vast opportunities for people to bring to bear” on “collective action” (p. 17); however, ready access will not necessarily enlist active participation unless people believe their attempts to effect change will be successful. Some predict the Internet’s power will achieve greater civic involvement through its ability to circumvent the various influential institutions such as the elite journalistic institutions and Washington lobbyists (Coleman, 2005); activate citizens to get more involved in community action (Dutta-Bergman, 2005); and bond advocacy groups, which already have common interests and highly organized Internet sites (Norris, 2004). Others, however, contend there is no sign of the Internet mobilizing those individuals who are not already civically engaged (Jennings & Zietner, 2003).

The ability for the Internet to improve civic and social engagement is perhaps best evidenced in the rapid rise of blogs and discussion groups on listservs where citizen activists are using Internet technology “to organize, to mobilize and to raise record-setting sums of money” (Pew Internet: The Mainstreaming of Online Life, 2005, p. 66). The technology is challenging traditional methods of collective action and how people mobilize support for social justice. This was evident in the Internet’s role in the Seattle World Trade Organization protests, which stood as “an example of future social justice action” (Eagleton-Pierce, 2001). The protest, which delayed opening ceremonies and prompted martial law, was a result of months of preparation and considerable online communication. Information sent through e-mail and listservs mobilized thousands worldwide and marked a beginning to online social activism (Eagleton-Pierce, 2001).

The rapid growth of e-government applications is also changing how individuals engage civically and advocate change in their communities. Research is showing government agencies are increasingly conducting business online, and Internet users are increasingly using on-line means to interact with government (Norris, 2001; Horrigan, 2004). The U.S. government Web portal, *www.FirstGov.gov*, a repository of all U.S. federal government Web sites, proclaims: “get it done online!” This one-stop shop, directed toward citizens, businesses, and other government agencies, contains a considerable amount of data and contact links that can help those on-line efficiently obtain forms, data, laws and regulations, and a vast amount of other resources. The cyber annals feature various retrievable topic areas related to jobs and education, public safety, consumer protection, travel, voting, environment and agriculture, and other important information, which citizens can efficiently retrieve from sizeable on-line government repositories. In fact, the United States ranks third worldwide in hosting the most government Web sites with an estimated 867 online (FirstGov.gov, 2005). The large number of Web sites reflects the priority the U.S. government has placed on e-government.

In response to this trend, more Americans are turning to the Internet to contact government and to try and change policy. The Pew reports:

- 38 million Internet users have sent e-mail to government officials to try to influence policy decisions.
- 29 million have researched or applied for online government benefits.

- Those using the Internet to contact government note their perceptions of government, as a result, have improved (Pew Internet: The Mainstreaming of Online Life, 2005).

At the most basic level, the data suggest the Internet expands information flow between government and citizens and opens up new avenues for those who are on-line to interact with government. Additional data, however, also show disparities – those who are contacting government on-line are more likely to be white, better educated, and have higher incomes (Horrigan, 2004). From this, e-government may not be closing the divide, but maintaining or possibly widening historical civic divisions. Others agree and state that despite the promises of virtual civic engagement the Internet seems positioned to cater to the established institutions and political elites, furthering the divide for those disengaged groups (Lawson Mack, 2001; Norris, 2001).

A clear consensus, however, has not been reached on whether the Internet increases, decreases, or supplements interpersonal contact and civic participation and how this might vary among different social classes. Two specific views, though, tend to dominate our discussion of the Internet's ability to strengthen or weaken a community's participation in civic and social matters as the world transitions online. The *cyber optimists* claim the Internet will vastly improve communication, social contact, and civic engagement at all levels, giving greater voice and access to those traditionally marginalized from the process (Norris, 2001). They now have a wealth of informational resources and civic content that awaits them. For them, the Internet is well positioned to contribute at significant levels to their social success and the success of their communities (Dutta-Bergman, 2005).

On the contrary, *cyber pessimists* believe the Internet will further widen the existing divide. They argue that those with the greatest resources will be granted even greater access to information, and as a consequence, the more privileged communities will become substantially more empowered over the less privileged ones (Norris, 2001). With easy and efficient access to vast resources Internet connected communities will not only have ability to retrieve information but the ability to “transform knowledge into action” (Burnett & Marshall, 2003, p. 19). Essentially, they believe what the Internet offers is not a technology that promises to revolutionize democracy and stimulate large numbers of the population into action, but one that will mainly benefit “sufficiently motivated people” (Feenberg & Bakardjieva, 2004, p. 213).

### **Social Capital**

In terms of online civic engagement, a fair amount of research has focused on human social capital and Internet use (Borgida, Sullivan, Oxendine, Jackson, & Reidel, 2002; Hampton & Wellman, 2003; Hopkins, Thomas, Meredyth & Ewing, 2004; Kavanaugh, Reese & Rosson, 2005; Shah, McLeod & Yoon, 2001). A plurality of these studies charge that social capital is an important precursor to determining levels of online civic involvement and therefore should be examined when attempting to understand Internet use and civic engagement in any given community.

Research points to three essential components that make up social capital: civic engagement, interpersonal trust, and life satisfaction (Shah et al., 2001). Together, these components have been positively correlated with a greater level of public participation (Putnam, 1995; Shah et al., 2001). The association between trust and civic engagement

rests in the belief that individuals can work collectively for the common good and what they say will matter (Carpini, 2004; Putnam, 2000).

Putnam (1995) describes two types of social capital: bridging and bonding. These two concepts tie individuals and communities together in distinct ways and act as mechanisms for building strong civic participation. *Bridging capital* occurs when individuals with varying backgrounds connect. Also referred to as *weak ties*, bridging relationships are tentative and lack depth, but are most effective at broadening social contact and access to information and resources. On the contrary, *bonding* occurs when strongly tied individuals such as family and friends support one another. Bonding ties, as opposed to bridging ties, are held together through strong personal connections, and as a result, provide substantial emotional and physical support within a community. Both bonding and bridging capabilities are important for building healthy communities (Putnam, 1995).

Research generally shows the Internet has some capacity to help bridge and bond communities, but largely this occurs among historically civically active people. The vast majority of this research, however, focuses on moderately to highly wired individuals and communities. Arguably, it is among these historically marginalized communities where the ability to build social capital is most challenging. I expand on some of these studies in the following paragraphs.

According to the literature, the Internet has been especially useful in bridging weak ties (Hampton & Wellman 2003; Kavanaugh, et al., 2005). Weak ties are effective in bringing together groups that would otherwise remain disconnected (Kavanaugh et al., 2005). Rich organizational life provides greater opportunities for people to serve as weak



ties and spread information conveyed by mass media and other sources to diverse groups (Kavanaugh et al., 2005). A three-year ethnography study in a Canadian wired suburb found the Internet especially supports increased contact with weaker ties (Hampton & Wellman, 2003). In noting the convenience associated with Internet use, they state:

Not all activities that started online stayed online. As we have argued ... the Internet became just another communication tool among the many ways people could interact, and contact in one way often led to contact in another. The asynchronous immediate, low-cost nature of sending messages over an e-mail list made NET-1 [Internet access], the ideal way of organizing residents in situations that otherwise would have required extensive organizational time and energy. (p. 302)

Similarly, a study in Blacksburg, Virginia, showed various social groups are using the Internet in a way that improves both bonding and bridging by expanding their reach within the community. Bridgers reported more involvement in their local community since going online, as well as using the Internet for political purposes and exchanging e-mail with government officials (Kavanaugh, et al., 2005). In this instance, the Internet facilitated and supported the formation of social capital. The researchers note, however, it was clearly “the usual suspects – community leaders and active participants – who are using the Internet to distribute information of civic interest” (p. 129).

Norris (2001) reported similar results but shows the Internet may be a stronger bonding agent than bridging one. With the scores of online groups where bridging and bonding can potentially flourish, Norris (2001) found overall contact with online groups improved both bonding and bridging. Online contact, however, was more powerful in bonding by bringing together “like-minded souls who share particular beliefs” (p. 36). In support of this finding, aggregate survey data show 84 percent of Internet users belong to online groups. As a result, users claim after joining online groups they feel closer and

have more contact with people outside their social class, racial group and generational cohort (Pew Internet: The Mainstreaming of Online Life, 2005). While the latter study did not consider bridging capacity, both studies provide further evidence of the Internet's ability to strengthen social bonds, an important component in building social capital.

Others argue the relationship between the Internet and social capital "is dynamic and highly contextual" and "patterns of Internet use retain meaningful associations with life contentment, interpersonal trust, and civic engagement" (Shah, et al., 2001, p. 154). In other words, building social capital depends on the personal motivation of the Internet user. Therefore, to understand how the Internet intersects with civic life, research must focus on what individuals do with this new technology, not what it does to them (Shah et al., 2001).

Further evidence shows offline civic engagement habits are simply mapped online resulting in no net gain or loss in social capital. Through one of the few before and after studies examining Internet use and civic engagement, Jennings and Zeitner (2003) demonstrated the digital divide, or the pre-Internet gap in civic engagement, remained in place over time after participants were given access. Their findings support, at a minimum, the argument that the Internet reinforces existing inequalities in civic engagement. They did not, however, find evidence that would indicate the Internet somehow leads to a decline in civic engagement as some have contended (Hindman, 2000).

Further study of Internet access and social capital revealed a much different view of the Internet and its influence on community life. In his quest to determine whether increased Internet use decreases community participation, Dutta-Bergman (2005) found

individuals living in high Internet access communities are more likely to be civically involved than individuals living in non-access communities. As a first attempt at capturing the relationship between access and community participation, the findings appear to suggest physical access alone may encourage greater civic engagement. This would be a departure from the numerous literature that focuses on cognitive barriers. Most importantly, the study positively linked the extent of one's satisfaction with the community as a product of available community resources (e.g., Internet), a link that previous studies have demonstrated (Borgida, et al., 2002). In response to these findings Dutta-Bergman (2005) establishes a link between community resources and social capital and how the Internet, as a resource, may begin to improve community participation in historically marginalized communities.

The importance of the Internet and civic engagement is complex and the emerging research remains tentative if not contradictory. Of interest to me is how individuals living in historically marginalized communities perceive the Internet and its ability to serve as an effective civic engagement tool for them. Underlying this inquiry, however, is whether these citizens believe given the Internet and the skills to use it, their engagement will produce positive outcomes. Largely, the literature shows the traditional patterns of civic engagement are simply mapped onto, or slightly increase, with Internet use. Few studies, however, have examined those communities that fall on the low end of the divide. The following statement serves as both encouragement and a warning in discussing the potential effect of the Internet on social capital, civic engagement, and the digital divide:

If people perceive that they have greater control over their interactions with the government and can see how processes operate, then those levels of mistrust and skepticism are likely to be reduced. However, one of the costs of reducing

mistrust is ensuring that all citizens have equal access to the technology that serves as an onramp to e-government. (Lawson Mack, 2001, p. 142)

Therefore, my study assigns social online civic engagement and the underlying concept of social capital as important factors in understanding the implications of the digital divide and the ability for citizens to have fair and equal access to information as the environmental justice policy assures. In the following section, I discuss the theoretical framework that guides my study in understanding the attributes and other factors associated with adopting or rejecting technology.

### **Theoretical Framework Guiding Study**

Diffusion of Innovation theory provides a framework for examining the adoption and use of new technologies, such as the Internet, in historically marginalized communities. Using this theory has certain advantages. Most notably, the theory provides straightforward and time-tested variables that explain adoption patterns and attributes that influence adoption. Everett Rogers brought broad recognition to diffusion theory in his 1962 book titled *Diffusion of Innovations*. In his book he defines diffusion as the process in which an innovation is communicated through certain channels over time among members of a social system (Rogers, 2003).

Diffusion theory has provided the framework for researching a variety of innovations (as well as the diffusion of information and ideas). Some of the technological studies include the landmark 1943 Ryan and Gross study of the diffusion of hybrid seed corn (in Rogers, 2003, pp. 31-35); diffusion of modern math in public high schools (Carlson, 1965 in Rogers, 2003, pp. 62-63), and more recently, the adoption of photovoltaic panels for home electricity in the Dominican Republic (Lesnick, 2000 in Rogers, 2003, pp. 246-247). Each of these studies helped strengthened diffusion theory

and the factors that we now attribute to a person's decision to adopt, including the personal characteristics of a potential adopter, the influence of the social system on the adoption process, the role of opinion leaders, and the attributes of the innovation.

Rogers (2003) defines five attributes that explain an individual's decision to adopt, which will be useful to my study. They include:

1. Relative advantage – the degree to which the innovation's benefits outweigh the costs and supersedes currently used technology. This may be measured in economic terms, social prestige factors, convenience.
2. Compatibility – the degree to which the innovation is perceived as being consistent with existing values, past experiences, and needs of the potential adopter.
3. Complexity – the degree to which innovation is perceived as difficult to use.
4. Trialability – the degree to which the innovation can be used on a trial basis.
5. Observability – the degree to which the innovation can be observed before a decision is made to adopt.

Past research indicates these five attributes are consistently important in explaining the rate of adoption (and non-adoption). The first two attributes, *relative advantage* and *compatibility*, are especially important (Rogers, 2003) and will be the focus of my study. More recent research reveals the power of these two attributes on people's decision not to adopt (Wei, in Rogers, 2003, pp. 294-295). For example, in a study of cell phone adoption, Wei (2003) found relative advantage and compatibility had

powerful effects on people's justification for not adopting cell phone technology despite its rapid diffusion into society. He specifically found complexity in using the technology and the phone's incompatibility with the participant's values were why some people decided not to adopt.

Except for a few studies, including those above, diffusion theory largely reflects characteristics of adopters, rather than non-adopters. It has therefore been subject to some criticism. Rogers (2003) himself notes two main limitations to the theory: 1) *pro-innovation bias* (assumes all people should adopt the technology and studies adoption from this viewpoint) and 2) *individual blame bias* (the individual, rather than the system, is accountable for impeding the adoption process). According to Rogers (2003), from the beginning diffusion theory has been applied as a conceptual paradigm for understanding adoption, rather than non-adoption. While this encouraged researchers to investigate diffusion, it also has served as the principal foundation for advancing the theory despite these shortcomings. Consequently, examining the effects of the system (for non-adoption) has been relatively ignored and the disadvantages of technological use are rarely considered. To overcome these limitations, Rogers (2003) suggests taking into account people's perceptions of an innovation, as opposed to the technologist's view. Studies must acknowledge that for some people, rejection may make sense based on their own rational thinking and behavior. As Rogers (2003) stated:

If diffusion scholars could more adequately see an innovation through the eyes of their respondents, including why the innovation was adopted or rejected, diffusion research would be in a better position to shed the pro-innovation bias of the past. Diffusion scholars would do well to remember that individuals' own perceptions count in determining their innovation behavior. (p. 116)

My study focuses on individuals' own perceptions and justifications for why they may or may not adopt the Internet as a tool for civic engagement. Results will help build adoption theory from this understudied viewpoint. Through diffusion theory my study also will explore the attributes of relative advantage and compatibility in participants' decision to adopt or not adopt the Internet, based on the advantages or disadvantages of using this new technology to advocate change in their community.

### **Research Questions**

My study examines individual's perceptions of the Internet as a tool for civic engagement in the context of environmental justice. The primary question guiding this inquiry is: Will the Internet give historically marginalized communities a greater voice in matters that affect them or leave them further behind? To begin to answer this question, a thorough understanding of the digital divide, barriers to Internet access, online civic engagement, and the capacity for building and possessing social capital in the community was essential. Based on the review of literature, the following questions emerged:

RQ1: What type of role, if any, do those who fall on the low end of the divide play in community-based advocacy?

RQ2: What perceived role do those who fall on the low end of the divide believe electronic media play in supporting their ability to obtain and communicate matters important to them and their community?

RQ3: Do those who fall on the low end of the digital divide perceive the Internet as a civic engagement tool for participating in environmental advocacy?

RQ4: Do those who fall on the low end of the digital divide trust that given Internet access their actions online will be productive?

RQ5: What barriers do those who fall on the low end of the divide cite as reasons for not using the Internet?

RQ6: What barriers do those who fall on the low end of the divide cite as reasons for not using the Internet for environmental advocacy?

My objective is to expose a culturally important group's perceptions and beliefs related to Internet use and to offer a clearer understanding of how the digital divide affects environmental advocacy in our inner cities. Equally important, I will attempt to address notable theoretical limitations about how technologies are adopted. By taking this approach, my study will 1) provide important insight about specific effects of the digital divide on historically marginalized communities prompting decisions makers to address barriers and adapt policies accordingly, and 2) establish a foundation for further research and theory building related to the digital divide.



## **METHOD**

I developed socially-constructed perceptions of the Internet as a civic engagement tool in advocating environmental problems in the inner-city by using qualitative research methods. Data were collected through focus groups, personal interviews, and observations through an urban community center, which served as a central location for my study. A review of the literature helped me develop research questions, which initially guided my study, and develop categories as common themes emerged. An additional literature review and observations helped me fill in gaps as topics materialized during data collection.

My rationale for using qualitative research is it is well suited for exploratory and descriptive analysis, as well as generating theory (Bailey, 2007). By using these methods I could develop a deeper insight into participants' own perceptions, values, behaviors, and socially- constructed experiences (Carey, 1988; Crotty, 1998; Denzin & Lincoln, Strategies, 2003; Hammersley, 1992; Janesick, 2003; Schwandt, 1998). My goal was to explore a specific social setting and offer a socially-constructed descriptive analysis of those findings. I wanted to interpret an understudied group's perceptions and use of the Internet as a civic engagement tool for environmental advocacy. I chose a broad topic to study; therefore, an exploratory approach made sense. My goal was to cover several topics that would reveal new research questions and prompt further research in this area.

To present my findings, I use illustrative passages from participant interviews, which have been categorized and anchored to other data. The following section provides an overview of my qualitative research strategy and the research process.

## **Grounded Theory**

As a qualitative strategy, I used systematic guidelines to construct grounded theory about Internet use and environmental advocacy in the inner city. These generally accepted techniques allowed me to move beyond simple participant descriptions and gather rich data from which I could produce *thick* descriptions (Geertz, 1973). They gave me focus and flexibility (Charmaz, 2006) to explore this broad topic, and kept me grounded, as well as my data.

From the point I began collecting data I wrote extensively about my observations in the community, the participant interviews, and the applicable literature. To construct theory, I drew upon these sources to help explain, justify and challenge what participants were telling me. Together, I used this data to establish links and construct main categories (or principal themes) for each of my main research questions. Multiple interview methods let me compare data across groups, and I drew on concepts from an array of printed and electronic sources including books, journal articles, government documents, and media reports. By systematically bringing this data into one picture, I was able to produce a clearer, more grounded view of participants' perceptions of Internet use and environmental advocacy in the inner city while producing middle-ranged theories related to Internet use and environmental advocacy. The following sections explain this process and the grounded theory techniques used in more detail.

## **Research Process**

My goal was to collect data from adults living in the inner city who rarely or never used the Internet. In total, 45 participants were interviewed: about half participated in focus groups (21), the others in personal interviews (23). (One participant did not share

information that could be used in the analysis.) The final participant list of 44 adults served as a suitable representative sample for my study. I further explain participant selection in sections that follow.

The premise of qualitative research requires the researcher to enter the subject's world (Janesick, 2003). All interviews therefore were conducted in settings that were familiar and comfortable to the subjects. Interviews were audio recorded with the participants' permission, and I personally transcribed all tapes. My decision to self-transcribe was based on Charmaz's (2006) suggestion to stay close to data over time as a method of recognizing emerging concepts and making analytical links. In most cases while transcribing I could easily recall the environment, voice inflection, similar participant remarks, and related literature, which increased precision, minimized bias in coding, and helped me produce thick descriptions putting into context participants' claims.

I used NVivo software, designed for qualitative analysis, as well as traditional methods for coding and analyzing transcripts, memos and observations. The advantage of using computer software is the researcher may code the same text in multiple ways and easily compare data across groups (Krueger & Casey, 2000). The disadvantage, especially for beginners, is they lose the value of learning by hand (Bailey, 2007). Taking note, I completed open coding using traditional methods and used NVivo for descriptive and focused coding. By doing so, I was able to remain hands on and close to my data while efficiently managing large amounts of text. In retrospect this hybrid approach served my analysis well.

Analysis took place from the point I began collecting data. I constantly compared data to concepts noted in the literature and to new concepts participants put forth. I began by open coding all data immediately following transcription and continued until all data were coded. This approach helped in three ways: I remained open to new and emerging themes rather than forcing data into pre-conceived categories; I was able to account for new data in subsequent interviews; and I was able to quickly recognize saturation when no new topics emerged (Charmaz, 2006). As a final analytic tool, I used memos to record observations, new insights, emerging themes, and connections made in the data. Writing memos and a persistent review of literature helped me develop categories, compare data, and justify analytic decisions (Charmaz, 2006).

Access to the community was a critical factor in completing my study. I began by identifying my personal connections to inner-city organizations and individuals. My strategy was to find a common link to participants. In the following section, I describe community access, participant selection, interviewing, and coding.

### **Access to the Community**

The ability to access the setting, locate participants, and build trust and rapport necessary for gathering data over time are central to qualitative research (Fontana & Frey, 2003). A strategy that has proven beneficial is to use the resources of an established organization to help recruit (Krueger & Casey, 2000). I chose an urban community center in Dayton, Ohio, where I had contacts established with the center's leaders. The urban community center, located in an economically disadvantaged area, focuses on community stewardship, youth environmental education, computer instruction, and after-school learning. At the time I was collecting data, the community center's summer youth camp

was underway. Assisting with camp were full and part-time staff and adult volunteers. Most of the staff, volunteers, youth, and their parents are minority (African American) and live in the city and neighboring residential areas.

I worked from the center while collecting data and volunteered as needed. This gave me sufficient access and an open line of communication to staff and volunteers, some whom I later used as informants. Working from the center allowed me to develop rapport with key individuals who linked me to participants. The center's staff helped with recruitment, and a few staff members participated in the study or recommended friends or family.

### **Participant Selection**

To gain access, community center staff made initial contact with parents and hosted the initial interviews. My goal was to reach as many staff, volunteer, and parents early in recruitment and to complete data collection within six weeks before the center's summer program ended.

Initial recruits were self selected and were asked to provide names of other adults once the interview was completed. This snowballing technique allowed me to access additional participants through trusted friends and family (Fontana & Frey, 2003) and reach participants outside the community center. Parents' busy work and home schedules were a factor in initial recruitment. Because initial recruits were key to locating additional participants for future interviews, initial screening criteria were broad. To participate, recruits had to be 18 or older, live in the community, and be willing to discuss why they did or did not use the Internet. A copy of the initial participant recruitment letter is in Appendix A.

Qualitative research calls for a range of related interpretive methods to capture the nuances of human life (Denzin & Lincoln, *Strategies*, 2003). For my study, data were collected through focus groups, personal interviews, and observation, which I explain in the following sections.

### **Focus Groups**

Two focus groups were conducted at the community center over two consecutive days. Focus groups allowed me to gather varied opinions across groups, to initially explore participants' perception and use of the Internet as a tool for community environmental advocacy, and to test and refine the interview questionnaire (Krueger & Casey, 2000). My initial goal was to recruit 10 adults per session hoping eight would attend; typically, six to eight participants is sufficient (Krueger & Casey, 2000). A few days prior to the focus groups, community center staff handed parents recruitment letters as they picked up their children from summer camp. Parents, staff and volunteers were asked to sign up, and I telephoned each to confirm their participation. Based on Krueger and Casey's (2000) recommendation, I recruited parents who had something in common – the community center – therefore establishing a more comfortable setting for group discussion.

A total of 21 adults participated in two focus groups. As Krueger (Moderating, 1998) suggested I recruited members with common interest but with some variation in background. I achieved sufficient variation among members in terms of age. The majority of participants, however, were female. In addition, adults who responded to the invitation were mostly experienced Internet users either at work, home or both. All but one focus group participant claimed to use the Internet at least a few times a week. Before

collecting data center administrators and I agreed soliciting socially active parents for focus groups would ensure participation and generate more insightful data since advocacy is what I was exploring. At this time, we were unsure about the level of Internet use among advocate parents. I believe I attracted more Internet experienced participants for these reasons: the participant criteria were broad to ensure sufficient initial recruitment, and those without Internet experience may have been apprehensive believing they would not be able to contribute to a topic they had so little experience with. As an example, two staff members who had little or no Internet experience said they chose not to participate in focus groups because they did not believe they could contribute to the discussion in a meaningful way.

Having mainly Internet connected individuals I found myself at a crossroads. I had hoped to recruit more participants with little or no Internet experience. The question I had to answer was should I include in my sample only those participants who were truly disconnected and risk losing the social advocates perspective of technological use and environmental advocacy, or do I recruit less experienced and non-Internet users for the personal interviews and obtain a balance of perspectives? At this point, I decided to retain data already collected from experienced Internet users and recruit less experienced users for completing the personal interviews.

While not originally planned, having participants with varied Internet experience is justified and warranted. While my intention was to interview primarily non-Internet users, these users would not exclusively represent those involved in environmental advocacy. A range of economic and educational backgrounds would be more representative of the city where there is a cross section of wealthy, middle class, working

poor and very poor, all of whom are affected by similar conditions (Anderson, 1999; Wilson, 1987). Moreover, the environmental justice movement has not been historically characterized as an individual cause, but rather a collective one, which began at the local grassroots level (Melosi, 2006). As well, the digital divide is not always viewed as an individual phenomenon. Norris (2001) often refers to groups, neighborhoods and communities in examining the possible effects of the digital divide in terms of civic engagement. Therefore, using participants with varied Internet-experience and socio-economic backgrounds would produce a more realistic view of community advocacy in a historically marginalized area and one where Internet use is predictably low.

After spending time in the field, qualitative researchers typically begin their study with broad questions, issues, or problems in mind, which are often refined to specific research questions based on their experience (Bailey, 2007). According to Charmaz (2006) qualitative researchers must remain flexible and be prepared to follow new data. An appropriate strategy at this point was to modify some of the research questions to accurately reflect these new insights. The final research questions are included in Appendix B.

Participants were given a grocery store gift card at the completion of the session. I chose to compensate participants because community center administrators had conducted successful focus groups in the past and offered similar compensation. As Krueger and Casey (2000) recommended, and I agreed, incentives were appropriate for the time participants gave from their personal schedules and families to participate in my study.



The focus groups were lively and discussion rich and proved to be an appropriate method for exploratory research (Bloor, Frankland, Thomas, & Robson, 2001) as important new concepts arose. As Madriz (2003) predicted, this method inspired group discussion and emboldened participants to share opinions that might not otherwise have surfaced. My control over the conversation was minimized (Madriz, 2003) and I obtained sufficient data leads to follow (Bloor, et al., 2001). For these reasons, focus groups were an effective choice. I describe my second research method, face-to-face interviews, in the following section.

## **Interviews**

Combining multiple methods of data collection from varied settings can improve the quality of the final analysis (Bailey, 2006). Therefore, immediately following the focus groups, I completed 23 personal interviews with participants who claimed to use the Internet only a few times a month or not at all. This brought my total number of participants with little or no Internet experience to 24. Data from the face-to-face interviews helped me compare, confirm, and follow themes that emerged from the Internet experienced focus groups. Interviews were conducted over six weeks, and my recruitment strategy proved to be successful.

Participant referrals helped me gain access, build rapport, and assure my safety while collecting data outside of the center. Interviews were conducted in participants' homes, apartment buildings, and the community center – places strategically selected where participants would feel unrestrained in sharing their personal feelings, attitudes and opinions (Charmaz, 2006). On four occasions other family members or friends were present during the interview. At no times was this disruptive or interfere with data

collection. In all cases, it appeared to provide a more comfortable environment and resulted in a more vibrant discussion with the interviewee. As Denzin and Lincoln (Collecting and interpreting, 2003) suggested researchers can make participants' world more visible by studying them in a natural and familiar setting. Other group members, however, can bias responses (Krueger, Moderating, 1998). I chose comfort and openness over the rigidity of interview techniques. At the same time, I was careful to direct questions to the person being interviewed and elicit responses only from that person. In most cases, the interviews were lively and often passionate, sometimes leading to fiery verbal and nonverbal responses. In all, the interviews were very successful.

The only limitation was making initial contact with some of the referred participants. Several phone numbers focus group participants gave were no longer in service and several did not return calls. Once contacted, however, getting participants to commit was not difficult. In one case, a participant called me back three times to share additional thoughts about a particular question. Once all interviews were completed, I re-interviewed community center staff to clarify or expand upon data collected to help strengthen analytic links in the data.

As an outsider, participants openly shared personal feelings and passionate opinions with me about critical community issues and their ability to address them. While scholars have historically held various viewpoints about gender, race and economic differences between the researcher and the respondent and its influence on data, Bailey (2007) suggests otherwise: "For successful research to occur, researcher and respondents need *not* match on key characteristics." She states: "If this were not the case, much important research would remain undone" (p. 108). Including the community center's

generous help, participant referrals, and how I framed the interviews, I believe participants responded eagerly, openly and fairly. An overview of the procedures used and guiding interview questions follows.

### **Guiding Questions**

An interview guide was used to keep the conversations on track (Appendix C). The guide was based on the research questions developed from the literature review and was amended following discussions with key informants at the community center. As Charmaz (2006) suggests the questions served as a guide to keep interviews on target but remained fluid. I followed this procedure and developed a questioning route recommended by Krueger (Developing questions, 1998), which encouraged participant discussion while remaining focused on the primary topic. I amended interview questions as new findings emerged and when clarification was needed (Charmaz, 2006). These modifications were minimal.

Bailey (2007) recommended beginning the interview with an overview to help put participants at ease. Before each interview I explained my connection to the community center and the purpose of my study. I then asked permission to audio tape the discussion and asked for informed consent. Next, I followed Krueger's (Developing questions, 1998) advice and proceeded with easy, open-ended, positive questions designed to elicit discussion and make participants comfortable in sharing their viewpoints. In most cases, I asked how they were connected to the community center or what they liked best about their community. I also used Krueger's (Developing questions, 1998) advice on constructing questions that sounded conversational, easy to say, clear, short, open ended,

and one-dimensional. Participants were given an opportunity at the end to ask questions about the study and provide additional comments.

Qualitative research is foremost interested in the participants' point of view (Denzin & Lincoln, Strategies, 2003). Researchers must remain open to participant viewpoints and not force data into pre-conceived concepts (Charmaz, 2006). I was careful to avoid suggesting particular topics by letting participants reveal, on their own, their perceptions and experiences. For example, I did not ask participants to describe environmental problems; rather, I asked them: "What is the biggest problem facing your community?" As the findings reveal, the responses veer away from the initial questions, in some cases, significantly. I therefore consider this to have been an effective approach for explaining this particular phenomenon in participants' own terms, a central goal for qualitative exploratory research (Denzin & Lincoln, Strategies, 2003).

Focus groups lasted approximately 90 minutes. In both cases each participant contributed to the conversation. Krueger's (1998) moderating techniques were used to balance participant involvement. In both cases, participants continued their discussion after the session officially ended. Most personal interviews ranged from 40 minutes to 90 minutes. At the end of each interview, all participants were given a background questionnaire to complete. From this, I gathered information about income, age, education, occupation, and Internet experience and used it to create and compare groups.

### **Observations**

In addition to participant interviews, I also gathered data via observations and included this information in my final analysis. As Bailey (2007) explains researchers can be structured or unstructured in their approach to observation. In some cases, researchers

“simply try to be around a setting as often as possible” and “seek out interactions with particular people” (p. 5). This best describes my observation method. While I primarily collected data through interviews, I did take the opportunity to interact with staff and volunteers as well as observe the community and interview settings. All observations were recorded in memos and later coded along with the other data. Several of my observations, particularly those of the community, helped develop stronger analytic links in the data.

### **Record-keeping**

I recorded numerous typed and audio memos, as well as journal entries during the interview process to record my personal thoughts, analytic insights of emerging data and observations. Bailey (2007) suggested recording personal thoughts could be a “rich source of analytic insights” (p. 118). I therefore regularly recorded personal insights in a portable print and audio journal, most that were later transcribed into formal memos. The greater part of record keeping was done through memos.

My level of analysis required me to make connections to previous research, observations and other data. As Bailey (2007) suggested, simultaneous with data collection, I engaged in memo writing to keep track of emerging themes and observations, explain rationale for developing codes, and record thoughts for future research. Largely, memo writing kept me focused and organized making my coding and analysis stronger and my writing more efficient. Interview transcripts and memos were coded and included in the final analysis.

## **Coding and Analysis**

My study explores how inner-city adults perceive and experience the Internet as a civic engagement tool, and if they view the Internet as tool for environmental advocacy. I used coding to manage emerging themes and anchor them to relevant literature, theories, and personal observations. Through coding, I was able to develop illustrative examples of common themes across groups. To draw upon the larger context in which the text was obtained (Charmaz, 2006), I coded and analyzed data gathered from focus groups, face-to-face interviews, observations, and memos.

Coding is the process of reducing large amounts of data into smaller easily retrievable categories (Bailey, 2007). The coding process, according to Bailey (2007), is one in which researchers “actively create the final product, which they believe adequately represents their observations and interactions” (p. 127). Mainly, I chose codes based on participants’ description of their perceptions and experiences I believed relevant to my inquiry and literature on the topic.

I began by recording information about each participant based on the participant questionnaire, which accompanied each interview (Richards, 2005). I used this descriptive data later for creating and comparing themes across groups. I then coded each line of transcript and memo text while writing about emerging themes (Strauss & Corbin, 1990). I used the study’s research questions as a guide to prevent straying too far from the study’s objectives in this early review of the data. I repeatedly read all text with each new question and coded as much data as possible. I completed this initial process of line-by-line coding using both the paper records and NVivo. For me, coding paper records, despite NVivo’s capabilities, gave me time to reflect on the interviews and my

observations in a way I could not have achieved using software. I was also able to periodically check my level of consistency in this early coding phase.

In my initial coding of text, I used actions rather than categories to identify and make sense of the data. According to Charmaz (2006), this technique “curbs our tendencies to make conceptual leaps and to adopt extant theories before we have done necessary analytic work” (p. 48). For instance, one participant talked about how she was afraid to use her computer because of a fear of computer viruses. As a topic, I could have simply coded this as *fear of technology* or *lack of knowledge about technology*, which then would explain a possible barrier to Internet use. By coding as an action, or as *believing computer viruses could destroy her equipment*, it prompted me to consider this barrier from her perspective and ask why? Another review of data revealed the participant’s concern about computer viruses was not due to her lack of knowledge or confidence in her ability to use the equipment, but her inability to afford the repairs if her computer failed. As a result, I avoided forcing data into preconceived categories and from making unwarranted conceptual leaps before all analytic work was complete, as Charmaz (2006) had advised.

To reduce data further and to a level where I could make useful analytical insights, I engaged in focused coding also referred to as axial coding (Strauss & Corbin, 1990). Focused coding, or axial coding, is more directed and conceptual than initial coding (Glaser, 1978). It requires the researcher to consider the meanings in context and reflect on related data (Richards, 2005). At this point, I combined initially coded actions into larger main themes I called principal themes, basing my decisions on a constant comparison of data, analytical links made to previous research, theoretical concepts in the

literature, and my own personal observations. All text was then re-coded using the principal themes as categories and then broken into sub-themes to provide a more detailed description of each principal category (Bailey, 2007). Figure 1 illustrates my two-phased approach to coding data. A description of my use of cataloguing software, NVivo, follows.

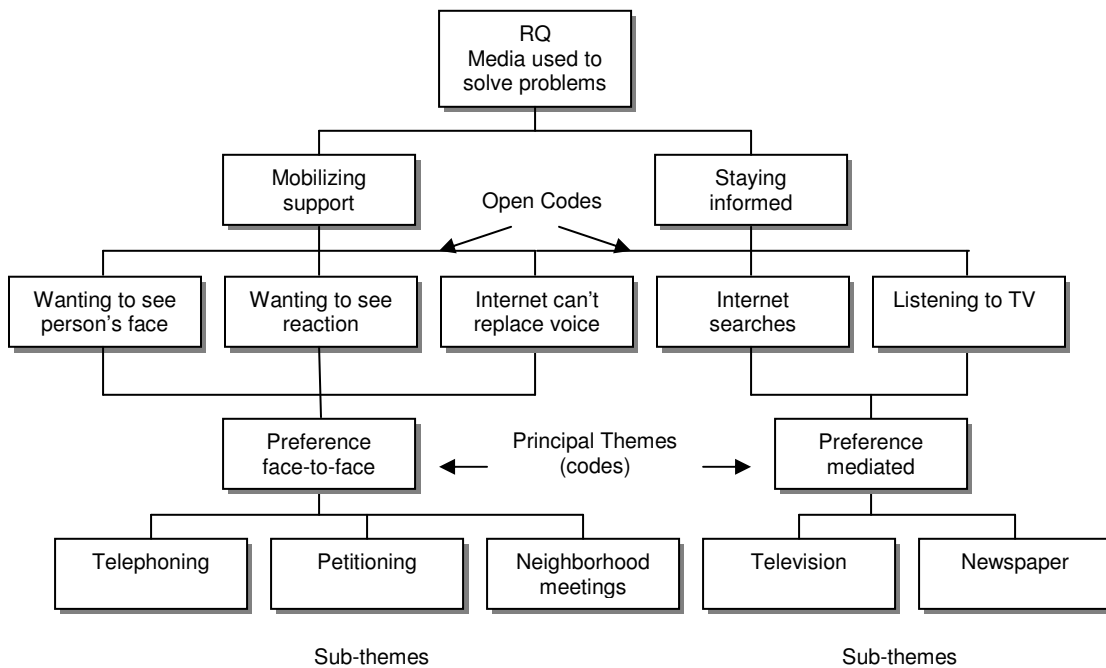


Figure 1 Open and focused coding (research question: media used to solve problem)

Note: Hundreds of open codes were created during initial coding. Figure 1 contains only a few for illustration purposes. Additionally, analysis of participant transcripts, literature, theories, and observations helped organize open codes into principal themes (focused codes). Cross group comparisons were also examined and are noted in findings.

NVivo helped me manage and classify data into principal themes (codes), and later to de-classify these main themes into sub-themes to account for variations in the data. NVivo was most beneficial for managing data and examining trends as theories developed. Although, at times, I found myself duplicating efforts by completing the same tasks on paper records and then re-coding the same text through NVivo, it was worth the



effort by allowing me to freely move data around as themes emerged and changed. For example, I initially classified *navigation problems* and *personal time* as a barrier to Internet use. In re-examining data (interview transcripts, observations and memos) I found these concerns were expressed by both experienced and inexperienced Internet users. This made me re-think my earlier assumptions that navigation problems would be a full roadblock to Internet use. I was able to easily trace coded text back to the full transcript where I could re-examine participants' claims in the full context of their discussion and link them to memos I had written about literature related to cultural views of the Internet. As a result, I found these concepts were perceived less as roadblocks to use and more as things participants would change to make Internet use easier.

To ensure reliability of my work I adhered to Richards (2005) advice in using coder consistency tests for individual coding. I randomly re-coded text using a clean version of the document and compared the results with previously coded text. I then examined the differences between old and freshly coded text. In most all cases my coding was consistent. In a few cases where it was not, I revisited coding definitions to check for oversights or deficiencies and recoded data. In addition, staying close to my data as previously described (Charmaz, 2006) and minimizing time gaps in coding (Richards, 2005) helped improve coder reliability and strengthen the final analysis.

For me, the key to reaching saturation began with collecting a sufficient amount of quality data and ended when the data categories quit expanding (Richards, 2005). I knew I achieved saturation when I saw nothing new emerging from the range of data collected. As an example, early on I began to hear similar claims of how participants viewed problems in their community relative to environmental concerns. I followed leads

as the emerged from the data that led me to new literature on the topic, including both life in the inner city and socio-economic influences on how persons view environmental problems in their community. My recorded observations and earlier interviews with key informants provided further support of developing categories. Once I was confident I had covered the breadth of my data, and saw nothing new emerging that would constitute a new category, I knew I had reached saturation with that particular topic.

While I am confident in achieving saturation for the theories I constructed, I do recognize the depth of data varied among topics as a result of such a broad study. In some cases this limited my explanation of theories. Perhaps the best example of this is my theories of barriers to Internet use. I discuss this and other limitations in the Summary and Conclusions chapter. In the following section I explain steps taken to minimize bias in the final analysis.

### **Reducing Bias**

There are no value-free inquiries or objective observations (Denzin & Lincoln, Strategies, 2003), but there are recommended steps to reduce bias (Charmaz, 2006). To reduce researcher bias I made my interest in this topic and previous experience with environmental advocacy known in Appendix D (Charmaz, 2006), kept a reflective journal (Janesick, 2003), and used some grounded theory techniques including intensive coding and memo writing, which required me to justify my analytic decisions (Charmaz, 2006).

As an example, when coding data I did not choose codes based only on my interpretation of participants' responses. In many cases, I established analytical links between participants' responses and literature on the topic. For instance, when coding

how participants used media to solve problems two main themes emerged: interpersonal communication and mediated communication. An additional literature search revealed the Communication Infrastructure Theory references these two methods, called storytelling, and links them to positive civic engagement. By establishing an analytical link between participants' discussion and the literature, I was able to strengthen my interpretation of the data and gather additional insight into participants' media choices.

Additionally, I used a key informant before, during, and after data collection to help validate and to clarify emerging topics and minimize any personal judgments. The informant is African-American and a long-standing leader in the community and at the community center where data were collected. The youth, parents, and staff members' respect for the informant was clearly evident in his daily interactions with them. The key informant helped justify my code selection for problems in the community and participants' perceptions and use of the Internet. These combined techniques helped support my analytical decisions and forced me to seek explanations elsewhere; thus, minimizing bias.

In the following chapter I present the study's major findings. I have organized this chapter into sections beginning with a profile of the community. Next, I present a general description of participant groups, which I later use to show similarities and differences across groups. Finally, I present representative passages that illustrate participants' perceptions and experiences of the study's major topic areas, relating each back to my initial research questions, observations, and related theories.

## RESULTS

People perceive and experience the Internet in different ways. For my study, I wanted to know whether people living in an urban city perceived the Internet as a civic engagement tool, mainly for environmental advocacy. The study is exploratory; therefore, I remained open to participants' view of priority problems – beyond strictly environmental problems – and the types of media they would use to solve them. The findings reveal the pervasiveness of unemployment, crime and drugs in the inner city, and its over-arching effects, far overshadow issues of environmental protection. They also suggest the Internet is not an “end all” solution or necessarily a preferred method to solving problems, even among experienced Internet users. The findings do, however, reveal the Internet is being perceived and used in a positive and productive way, even among those who lack physical access. Whether this use decreases, maintains or expands the digital divide is not clear.

I was interested in exploring participants' unbiased perceptions and experiences. I therefore was careful not to influence participants' response and avoided making assumptions prior to obtaining their input. For example, I did not ask participants to describe environmental problems in their community; rather, I ask them about the most pressing problems in their community. Similarly, I did not ask them whether the Internet was a tool they would use for community advocacy; rather, I asked them what tools they believe would help them advocate solutions to community problems. To this end, responses veered from my planned inquiry. For example, not one participant described environmental problems as the most important problem in their community. Instead they spoke of more pressing community problems stemming from crime, drugs and violence.

Environmental problems were only discussed after being prompted. The study's findings reinforced my decision to use qualitative research, as its inherent flexibility and ability to move beyond pre-selected variables (Bailey, 2007) helped me capture the participant's point of view and socially construct their reality (Carey, 1988; Denzin & Lincoln, Strategies, 2003).

I begin this chapter with a profile of the community and participants followed by a discussion of the results. The results are organized in order of the topics covered. For each topic, passages from participant interviews are used to illustrate emerging themes. Where applicable, differences across groups are noted. Relevant literature, theories, and personal observations are also discussed and used to describe and anchor participants' views and my interpretation of them. A more detailed discussion is offered in the final chapter.

### **Community Profile**

I collected data from adults residing in Dayton, Ohio. Dayton offers an appropriate backdrop for studying the Internet use and environmental advocacy based on its status as an urban community, its high minority population, and its strong industrial heritage. The city is located in Montgomery County in southwest Ohio along Interstate 75 and Interstate 70. Cincinnati and the Ohio River are about 50 miles to the south and Columbus, the state's capital, is about 70 miles to the east. Dayton's total population is estimated at 166,179 of which 43.1 percent are African American (U.S. Census Bureau, Demographic Profile Highlights, 2000). Near some of the city's most neglected and run-down industrial properties, the number of minority residents increases to 51 percent (U.S. EPA Brownfields Grant Fact Sheet Dayton, Ohio, 2004). Dayton ranks 30<sup>th</sup> for number

of African Americans in cities with 100,000 or more people (U.S. Census Bureau, County and City Data Book, 2000), and the median household income of city residents is 65 percent of the national average with 23 percent living below the poverty level (compared to a 12.4 percent nationally) (U.S. Census Bureau, American Community Survey, 2006).

Dayton was founded in 1796 and incorporated in 1805 following Ohio's admission into the union. It is best known as the home of airplane inventors Wilbur and Orville Wright (City of Dayton, Brief History, 2008). Known primarily as a factory town, the city in its early years attracted large numbers of Eastern European immigrants followed by a dramatic increase of African Americans after World War I (Dayton History at The Archive Center, 2008). Automotive, aviation, and paper manufacturing are the type of industries that distinguish its past. Dayton's west side near the location of the community center was, at one time, a thriving industrial area (Dayton History at the Archive Center, 2008; Daytonology, 2008).

While the post-war industrial buildup occurring in Midwestern cities, like Dayton, provided jobs for African Americans "those opportunities came with a toxic toll" (Merchant in Glave & Stoll, 2006, p. xi). In addition to widespread joblessness, the end result was a disproportionate number of contaminated properties now located in economically disadvantaged and minority neighborhoods. At times, these types of community problems have been brought to the national forefront as a result of strong community action or a reporter's curiosity over a single incident or notable catastrophe (Lerner, 2005), yet not always. Often, these toxic legacies found in virtually all major cities – especially those with an industrial past – remain under the national radar. They

are, however, nonetheless present and can be a chronic threat to the health and well-being of people who live near them, as in the case of cities like Dayton. It is for these reasons I chose Dayton as the setting for this exploratory study.

Nationwide, citizens are potentially exposed to numerous toxic chemicals that pollute our soils, air, drinking water and homes. Some sources of these toxins include unregulated and abandoned industrial facilities or *brownfields*, leaking underground petroleum storage tanks, and unregulated and unprotected industrial landfills often located near streams, rivers and other major sources of drinking water. Toxic pollutant discharges were not largely regulated until the passage of the Clean Water Act and Clean Air Act in the 1970s. For states like Ohio with a storied industrial past this means many of its communities, including Dayton, must now contend with these historic toxic legacies, in addition to new forms of pollution (e.g., traffic congestion, urban sprawl, new manufacturing, and household hazards, such as lead paint).

In many ways, Ohio and its steel, rubber, paper and automotive producing cities became the basis for landmark environmental reform. It was Time magazine's coverage of the Cuyahoga River Fire of 1969 in Cleveland, Ohio, which eventually led to sweeping environmental reform under the Clean Water Act – the nation's first comprehensive legislation to protect drinking and groundwater (Adler, 2004). A visual of the river ablaze brought widespread attention to the environmental problems in Ohio and its numerous polluted waterways. As Green Environmental Coalition, an Ohio-based environmental group, noted: "A blazing Cuyahoga River symbolized the state's environment, which ranked among the nation's worst" (Environmental Threats, ¶3, 2008). Not surprisingly,

some of these legacies are still evident today in the state's high number of rustbelt cities where manufacturing has progressively declined.

Beginning in the early 1970s, Dayton lost 45,000 jobs and 60,000 residents as industries moved out or closed down. As a result, large vacant lots where factories once operated are now commonplace. In fact, community center staff indicated to me they believe the center itself was built on or near an industrial property, although this information could not be confirmed. Among what potentially could be a large number of unknown brownfields, the city has identified 10 sites comprising over 135 acres of land located mostly in the city's lower-income minority neighborhoods (U.S. EPA Brownfield Assessment Demonstration Pilot Dayton, Ohio, 2001). One example is a 3-acre property, which at one time was used for coating metals. Samples collected from the property revealed that acids, bases and cyanide were once stored there, which potentially has threatened groundwater beneath it (Ohio EPA Division of Emergency and Remedial Response, Dayton Electroplate, 2000).

In addition, six of the state's 40 federal Superfund sites are also scattered around the city. Four of the six sites are landfills that took industrial and municipal wastes, which have released or threatened to release toxins at levels that could endanger public health as well as a major underground drinking water source (U.S. EPA Superfund Program, 2008). One of these nationally-designated sites includes a 101-acre unlined landfill surrounded by former industrial plating facility, a demolition debris landfill, and a former car crushing facility. Waste buried at these sites includes electrical transformers, burned foundry sand, slag, rubber tires, and drums of chemicals. According to U.S. EPA, at one time the landfill posed a serious threat to Dayton's federally-protected aquifer that



provides drinking water for most of the region (U.S. EPA Region 5 Superfund Site Progress Profile, North Sanitary Landfill, 1994).

Other sites include a 67-acre unlined landfill where records indicate at least 250 drums of chemicals were once disposed (U.S. EPA Region 5 Superfund Site Progress Profile, Powell Road Landfill, 1984), and a 40-acre landfill located less than 3 miles from public water wells, which serve as a drinking source for an estimated 110,000 people (U.S. EPA Region 5 Superfund Site Progress Profile, Sanitary Landfill Co., 1986). At various times, the Agency for Toxic Substances and Disease Registry and the Ohio Department of Health have teamed up to evaluate public health threats posed by these and other potentially hazardous sites in and around the Dayton area as a result of a legacy of heavy industry and lax regulations (U.S. Department of Health and Human Services, ATSDR Public Health Assessment, Health Consultation, Ohio, 2008).

Like many other large cities, air quality in Dayton also is a factor. Poor air quality in Dayton presents additional risks to residents who are exposed to its harmful toxins, some carcinogenic, which come from an increasing amount of traffic congestion as well as local industries. Links have been made between unsafe ozone levels and increased hospital admissions for respiratory causes, such as asthma, especially affecting children and the elderly (RAPCA, Ozone and Ozone Action Days, 2000). In 2004, U.S. EPA designated Dayton area as *non-attainment* for exceeding safe levels of ozone and particle pollution (Miami Valley Regional Planning Commission, 2005). This comes as little surprise considering Ohio has the 4<sup>th</sup> largest Interstate system and the nation's 5<sup>th</sup> highest volume of overall traffic (Ohio Department of Transportation, 2008). Three of the state's major interstates and one U.S. route crisscross through Dayton: I-75, I-675, I-70 and U.S.

Route 35, resulting in heavy traffic congestion, especially at peak rush hour times.

According to U.S. EPA motor vehicles are responsible for between 50 and 75% of ozone causing and other toxic pollutants nationwide (U.S. EPA, Plain English Guide, 2008).

The Environmental Defense Fund, a national environmental advocacy group, ranks Ohio and Dayton (Montgomery County) among the nation's worst areas for hazardous air pollutants (Environmental Defense Fund, Scorecard, 2008).

Dayton is not unique but does provide an appropriate setting for examining Internet use and environmental advocacy. I base this on the aforementioned history of environmental problems, including an unknown number of abandoned, idled or underused properties that threaten the community's health, along with present day environmental threats, such as air pollution and traffic congestion inherent to poor urban communities. The fact Dayton is like so many other cities makes it a suitable setting for my study. I am most interested in how people view environmental problems in their everyday lives, not on those occasions they become high profile events. In the following section I discuss the participants selected for this study.

### **Participant Profile**

For my analysis, I used data from 44 interviews with adults living in the city of Dayton. (One participant had recently moved to a neighboring suburb but reflected on her time in the city.) The interviews were central to exploring and describing individual's perceptions and use of the Internet within the central city where Internet use is predictably low. They included members with varied Internet experience with more than half of the participants having seldom or never used the Internet. All but two participants were African American and their ages ranged from 18 to 70 year-olds. Participants

responded to questions guided by the study's principal research questions derived from the initial literature review.

For my analysis, I organized participants into two groups: 1) high Internet access users and 2) low Internet access users. High access users include mainly college educated participants living in the community who claimed they use the Internet regularly or at least occasionally. *Regular use* was defined for participants as every day, and *occasional use* as a few times a week. These individuals accessed the Internet at work and home and had other experienced Internet family members living with them.

Participants from the low Internet access group have somewhat varied educational and economic backgrounds. Participants in this group claimed to use the Internet only *sometimes*, (defined as a few times a month), or not at all. Of this group, a total of nine participants claimed to never use the Internet. Those who sometimes accessed the Internet primarily did through work, school, or public places such as the library, and most have experienced Internet users living with them. Participants who never used the Internet are mainly unemployed or retired, have a high school diploma or less, and do not have other Internet experienced family members living with them. The strongest divider between those who sometimes accessed the Internet and those who did not was income, education, age, and other Internet experienced users in the household. I did not to distinguish between those who were truly disconnected and those who claimed to only go online a few times a month. Such limited use is not likely to translate into meaningful online civic engagement, especially considering the barriers that are restricting their participation in the first place.

Citizens with more financial and educational resources are more likely to adopt technology than those with fewer economic and social resources (Rogers, 2003). My findings are consistent with this theory and a plurality of Internet use studies, which show a clear socio-economic divide between those with Internet access and those without. According to the Pew Internet and American Life Project Tracking Survey (April 8 – May 11, 2008), and consistent with my findings, income, education, race and age (over age 65) continue to be primary definers of the divide. For example, Pew reports only 53% of those who make less than \$30,000 per year are online This is compared to 76% who make between \$30,000 and \$49,999; 85% who make \$50,000 - \$74,999; and 95% who make \$75,000 or more. Similarly, only 44% of those who have less than a high school education are online, compared to 63% who have completed high school; 84% who have had some college; and 91% who have college and post-college experience.

While interviewing participants, no specific parameters were given for the context in which they accessed the Internet. The participants, however, referenced the Internet via computer in all cases but one. A profile of each group follows in Tables 2 and 3.

Table 2 Participant profile – High Internet access group

Name (alias)	Age	Income <sup>1</sup>	Education	Internet Use	Other Internet users in home	Internet Access
Jaleesa	<20	-----	college	everyday	parents, sibling	home/work
Wakeisha	30s	-----	college	everyday	children	home/work
Kendra	30s	-----	college	everyday	children	home/work
Candice	30s	-----	college	everyday	spouse, child	home/work
Marisha	40s	-----	college	everyday	spouse, children, sibling	home/work

(table cont.)

<sup>1</sup> Income data was not collected for focus group participants because of their close connection to the community center and community staff members who were present in group sessions.

Name (alias)	Age	Income <sup>2</sup>	Education	Internet Use	Other Internet users in home	Internet Access
Andre	30s	-----	college	everyday	spouse, children	home/work
Stephanie	30s	-----	college	everyday	children	home/work
Sharise	20s	-----	college	everyday	parent	home/work
Talicia	30s	-----	college	everyday	spouse, children	Home
Joelle	50s	-----	high school	everyday	-----	Home
Dashawna	20s	-----	high school	everyday	parents, siblings	home/work
Michelle	50s	-----	college	everyday	child	home/work
Trina	30s	-----	college	everyday	children	home/work
Catrina	40s	-----	high school	everyday	-----	Home
Charlotte	50s	-----	college	everyday	child, grandchild	home/work
Paulina	50s	-----	college	everyday	child	Home
Timothy	50s	-----	college	everyday	-----	home/public place
Jonetta	20s	-----	college	few times a week	children	Home
Ronelle	40s	-----	technical school	few times a week	children	Home
Melinda	20s	-----	college	few times a week	child	Home

Table 3 Participant profile – Low Internet access group

Name (alias)	Age	Income	Education	Internet Use	Family	Internet Access
Christina	40s	\$65,000 - \$74,999	college	a few times a month	-----	Work
Sherrie	40s	\$35,000 - \$44,999	high school	few times a month	daughter, son	Work
Rayelle	40s	\$55,000 - \$64,999	some college	a few times a month	children	Home
Deidra	40s	\$25,000 - \$34,999	college	a few times a month	sibling	home/work

(table cont.)

<sup>2</sup> Income data was not collected for focus group participants because of their close connection to the community center and community staff members who were present in group sessions.

Name (alias)	Age	Income	Education	Internet Use	Family	Internet Access
Wanda	50s	\$25,000 - \$34,999	technical school	a few times a month	child, niece	public place
Lisa	40s	\$25,000 - \$34,999	technical school	a few times a month	-----	public place
Raymond	40s	-----	some college	a few times a month	spouse, children	Work
Glenda	70s	\$15,000 - \$24,999	technical school	A few times a month	-----	Work
Tachelle	20s	<\$14,999	high school	a few times a month	sibling	Work
Trinika	<20	<\$14,999	high school	a few times a month	siblings	home/work
Jeannie	40s	<\$14,999	high school	few times a month	child	Home
Randall	30s	<\$14,999	high school	few times a month	-----	public place
Adrian	20s	<\$14,999	some high school	few times a month	-----	public place
Martin	20s	<\$14,999	high school	a few times a month	-----	public place
Cody	20s	<\$14,999	technical school	a few times a month	-----	public place
Steve	50s	<\$14,999	high school	never	-----	n/a
Eloise	70s	<\$14,999	high school	never	-----	n/a
Lucille	70s	<\$14,999	high school	never	-----	n/a
Henrietta	70s	<\$14,999	some high school	never	-----	n/a
Annette	40s	<\$14,999	high school	never	-----	n/a
John	50s	<\$14,999	high school	never	-----	n/a
Rodney	50s	<\$14,999	college	never	-----	n/a
George	50s	<\$14,999	high school	never	-----	n/a
Denelle	40s	<\$14,999	some high school	never	-----	n/a

In the following section I discuss common themes that emerged from participants' discussion of problems in their community. For this particular section, I chose to begin with detailed passages from select participants. According to Wilson (1996), "The residents who live in the environments plainly see this process themselves and many of them discuss the situation in clearer and more graphic terms than the social scientists who are researching these neighborhoods" (p. xviii). These passages accurately portray the sum of participant responses and put into context the breadth and depth of how

participants perceived problems in their community – a topic so many of them passionately discussed, and one that reaches into so many aspects of my study.

For all topics I include brief passages, representing the major themes and sub-themes participants discussed. A brief description of each participant precedes several passages – some more detailed than others – to provide a context in which the information is presented.

### **Participants' Account of Problems in the Community**

Overwhelmingly unemployment, drugs, moral decay, crime, and a fear of violence represented most participants' view of the biggest problems in their community. These problems were not surprising or unexpected. Anderson (1999), Kozol (1988), McCall (1994), Wilson (1987, 1996) and decades of research of life in urban minority communities portray these trends. These specific problems were also pinpointed during early interviews with community center staff. What is important is to view these problems relative to environmental concerns among city residents of various socio-economic backgrounds. As I will later show personal motivation or interest in environmental matters is eclipsed by these more pressing problems.

While my primary interest is people's perception of the Internet as an environmental advocacy tool, participants clearly believed these issues were more pressing. Only after being prompted did participants discuss environmental concerns and associated health risks. Lisa, Wanda, Annette, Deidra, John, Candice, and Kendra provide illustrative examples that I believe capture the participants' view of the breadth and depth of these issues. No significant differences were found across Internet use groups. At the

end, I give illustrative examples of environmental problems, including a discussion of the context in which participants defined them.

### **Lisa**

Lisa, in her 40s, is a wife, grandmother, and currently unemployed. Drugs and crime in the central city influenced her recent decision to move to a neighborhood at the city's edge. She was concerned about her children and grandchildren who stay with her. Although she now lives with her husband in an apartment in a quiet neighborhood, she still takes precautions by asking visitors to park in front so she can identify them through her front window before unlocking her door. My interview with Lisa ended abruptly when her friend called for help after overdosing on drugs. We continued our conversation later that week by phone. In the following passage, she describes conditions in her previous neighborhood and the overpowering force of crime in the community:

People today they don't come together because they are jealous of this person or they scared that people come into your home and they see something they like and before you know it's gone – someone already broke into the house. People are scared. There's so much crime and stuff. Plus, people can't talk to other folks without somebody wanting to pull a gun or talking about beating up on somebody. So, a lot of people are almost captives in their own home because the riff raff they have beside them, in front of them, behind them, up the street, down the block – it's really bad.

### **Wanda**

Wanda, in her 50s and a single mother, moved away from the city because she felt her sons were at risk. She currently lives with her oldest son and his children in a neighboring suburb. Her youngest son was recently awarded a football scholarship and now attends college. She reflected on her experience living in the inner city and described



the problems stemming from joblessness, a lack of social activities for teenagers, and the need for positive adult role models:

Living in the city – oh my god – it’s just gotten horrendous. ... There’s a lot of crime, there’s drugs, there’s prostitution – and that is just out of control. The area where we lived, it had really gotten out of control. The drug dealers and the prostitutes had just practically taken over that area and I was afraid for my son to leave the house and walk down to the corner to catch the bus and go to school. I just didn’t know what would happen to him ‘cause all the kids he went to elementary school with and high school began to deal drugs and he wasn’t one of them ‘cause he was focused on playing sports. So, I worried about him. I had two sons and they both escaped and neither of them drink or do drugs or were ever arrested or anything like that. So I was blessed in that way but it was hard getting them to that point because I always had to be the mother that said “no, you can’t do this – no, you can’t go there,” so I wasn’t popular. But I know what I was trying to raise them to be and it wasn’t for them to be out on some corner. So, to me, the biggest problem is the kids don’t have anything to do. The teenagers don’t have anything to do. So, the best thing they see – they see their parents struggling and not having this, that, and the other, and not being able to give this, that, and the other even if they are working two or three jobs and struggle. They see that the drug dealers have the cars, the clothes, and all the *bling-bling* and the things that impressed them, so they begin to pattern themselves after what they see – what they are seeing on TV – what they are seeing in their neighborhood – who’s successful. Their examples of success are unfortunately criminals.

### **Annette**

Annette, in her 40s, is a high school graduate and unemployed. Her son was recently in a near-fatal car accident and is hospitalized. She admitted to having prior problems with drug use and speaks from personal experience about the negative impact of drug use and crime on individuals and her community. She described the root cause as a lack of positive adult role models and opportunities for the next generation – a theme expressed by other participants:

Parents need to get involved with their children. Finding something for them to do in the daytime rather than running the streets – give them opportunities. What I see is a lot of young people go to jail and lot of stuff.

Instead of looking at their record all the time and saying they’re bad people – how do I say this – give them a chance to turn themselves around and let them know they can go back to school and you can have this instead of looking at

that record all the time. Cause like if you have a felony or something you can't work here, you can't work there, you can't work here. It's frustrating 'cause you know it throws you off and you – say that person made one mistake and it stays with them the rest of their life. I see why a lot of young people out here selling dope and doing what they're doing because of their record and not giving them an opportunity to try and be a productive person – try to change their lives because of that one little mistake they made. So the problem with them just continues. You know, it's just a continuous thing for them to go out here and sell dope 'cause nobody will give them a chance and that record stays with them all the time. That's for the young people – so that's the life they live and that's all they know because nobody going to give them a chance. That's what I see with the young people.

And that's a lot of these young kids problems is their parents and them out there – and maybe it's because they can't get a job because they couldn't do this and they got frustrated and got led the wrong way and got caught up in the drugs and whatever. I know some young girls they prostituting and every time I turn around they getting locked up from prostitution. I never went that route or nothing but it's not really the babies' fault they out here doing what they're doing it's because there's nobody home.

### **Deidra**

Deidra, in her 40s, has a graduate degree and teaches in the city schools.

She described the moral decay in her community. Like Annette, she believes there is a lack of positive adult role models to instill stronger morals and values in today's youth, which she believes is contributing to crime and violence in her community. Deidra cares for her nephew and grandchild full time. Her sister is recovering from problems associated with drug use. She speaks about her personal experiences and observations as a teacher:

We didn't come to this problem yesterday. We came to this problem when everything in society became all right. ... My thing is simply this – when you have children responsible for instilling these moral and values – and they haven't learned these morals and values themselves – how do you expect a 9-year-old kid to give a baby morals and to instill in the baby values. Nobody's telling these kids it might not be wrong enough to land you in jail, but it's morally wrong – it might not be wrong enough to cause you big issues for the rest of your life, but it is morally wrong. See nobody sits down and tells our kids that you say “yes Ma'me” anymore. These 13-year-old parents is telling these kids that if somebody hit you, you hit them back. If somebody cuss you, you cuss them back. Somebody act like

they're going to do more than that, you shoot'em. This is the society we live in! Nobody home with them. There was this one young man in class whose dad had two wives living in his house. And they co-existed wonderfully. He didn't know that this was abnormal. He thought that was normal – you know what I'm saying! But that's what's going on.

There are always other issues that keep our children from getting to where they are supposed to be. If it's not financial, it's some kind of abuse. And I don't mean the kids getting hit, it may be that their parents are missing or there's no food in the house. There's just a whole lot of other issues that are kids have to swim through before they get to the actual problem.

There's other issues, true enough, in the suburbs. But their issues are different – they're just different. In the inner-city our issues are different – just different. It doesn't make the children in the inner city bad children – it doesn't make them any of that. They are different because our lifestyles are different. And it's getting to the point – it has gotten to the point – it's no longer getting to the point – where everybody is living in fear in the city. Everyone is living in fear because of what is going on. It's escalating daily. Everything is falling out of the city. Dayton has gone by the wayside at an alarming rate.

### **John**

John, in his 50s, is a high school graduate, unemployed, and a lifetime resident in the community. John speaks about continued economic decline and the loss of good jobs, which he believes leads to violence and crime in his community. Like Wanda, Annette and Deidra, he also is concerned about the next generation's future. He described how the declining economy and the disappearance of decent paying jobs is fueling illegal drug trafficking and crime in his community. John currently lives alone and has a granddaughter who attends the community center:

I came up with General Motors, the factories, my mom retired from General Motors – both my parents. But when it came down to say my son they are taking jobs but they are taking a low pay cut. It can damage the whole city. [With the younger generation] this is the thing to do – the weed, the pills, the crack. But even though it seems bad though – this is how [they] make [their] extra money. And then there are more prisons being built which seems like the only door that opens. And the society seems to know this because they are building more prisons and they are everywhere, you know. And we don't know what is going to bring us out of that poverty level. Delco in the next 2008 or 9 is supposedly going to move and that is one of our last plants other than Chrysler that we have. And once that leaves it's going to bring more poverty onto these kids wanting to get out there

and wanting to hustle and do drugs and we need a solution other than just McDonalds and those type of jobs available for them. Because you've got people who had went to college, graduate college, and where do they go to get jobs? Everything seems to be going – whether it's down south and they even going as far as Mexico. You know this is our home. I was raised here and I've seen the change.

### **Candice**

Candice is in her 30s, has a graduate degree, and teaches in the community. Like John, she is also concerned about the lack of employment. As other participants did, she described the fallout from the lack of jobs and industry leaving. But Candice discussed the fallout in terms of diminishing basic services – services some communities take for granted. In this simple passage she conveyed the problem of a businesses closing and the problems of shopping in her community:

Let's talk about the jobs and businesses leaving – 'cause you know the other day we went into the Wal-mart, and prices are higher than they are in Trotwood, and I live closer to this Wal-mart. You know, I have to drive an extra 15 minutes in order to go into a store that is clean, that has good customer service, and not pay 10 to 50 cents higher on everyday items. I'm saying I'm going to get me a big van and I'm going to take them there. If their prices are cheaper up there, I'm going to give you a ride there. You know, 'cause the buses don't go there.

### **Kendra**

Kendra is in her 30s, works full time for a national shipping company, coached high school boys, and has a son. I chose this passage because she explains the depth of the problem, the moral decay, and the absence of hope in her community. She uses HIV in the community and her attempt to instill values in young boys to describe the problem:

I was so outraged about the HIV in our community that I went downtown and got condoms from the AIDS place. Got printed out information and leaflets – because it's a lack of education and a lack of healthcare. But they wanted the condom (laughter), but not the materials!

To be honest, we are so beaten down as a people that we don't think we can get up, or we don't know how. You know, we only make up 12 percent of the population, but we account for 50 percent of all new cases of HIV. I mean the

numbers, I mean it's ridiculous. If you hear that now, doesn't that make you upset and wonder why that's happening? But, I don't know why we are so beat down, that we just don't care, aren't motivated enough to do anything. This is serious! Do the math. I mean I don't know.

I coached high school boys, and to get them motivated you have to get to them separately and figure out what makes them tick. It took me two months for me to get them to pull up their pants. I bought duct tape, you know. I don't need to see your drawers. But it's a case by case basis. I mean it's each person individually and what makes them tick.

## **Analysis of Problems in the Community**

Four principal themes emerged from focus group and interview participants' discussions like the ones above describing problems in their community. The principal themes largely reflect evidence found in Anderson's (1999) study of decency, violence and moral life in what he terms "the circumstances of life in the inner city" (p. 32). While descriptions of these themes are based on Anderson's (1999) definitions, they have been expanded to also reflect participants' descriptions of their own unique problems. The principal themes are illustrated and described in Table 4.

Table 4 Principal themes for defining problems

<b>Theme</b>	<b>Description</b>
Lack of jobs	A lack of jobs that pay a living wage, insufficient financial resources, economic decline, loss of good jobs.
Drug use and trafficking	Fallout from overall rampant drug use and trafficking; other crimes indicative of underground economies (prostitution, theft, guns, other violent offenses).
Limited basic public services	Services others take for granted: trash, police response, building maintenance, failing infrastructure, noise, lighting, basic standard of education, community centers and social activities, overall cleanliness.
Alienation and absence of hope for the future	Feelings of disparity, inequality; eroding values; lack of positive adult role models; desire to return to the old ways.

Anderson's (1999) definitions were remarkably consistent with themes that emerged from participant interviews and were an effective tool for analyzing data. Along with personal observations, his insight along with other relevant literature helped link and justify the descriptions of problems Lisa, Wanda, Annette, John, and the others described above.

In the following sections, I present example passages that represent each principal theme. I follow with a discussion on how these findings relate to literature on the topic, relevant theories, and my own observations. Many of the themes are inter-related, which I also discuss.

### **Lack of Jobs**

Participants defined problems in terms of "poverty-stricken neighborhoods," "unemployment," "industry moving out," and "the loss of high-paying jobs." They described the effects on themselves, others, and the community. One participant was concerned people in her community "could not afford health care." Almost half of all participants were unemployed and spoke from experience. Those that had stable employment often acknowledged the plight of others. Participants' descriptions of a lack of jobs follow:

Joelle: You can't go to McDonald's anymore and knock on their door because all those jobs are gone. OK, if you look what's happening out at GM. You know we are one of the poorest cities in the nation.

Steve: The economy right here now is especially out of whack – especially here in Dayton 'cause there's a lot companies that are leaving, and a lot of jobs that's going out to other contractors outside of this city. You know there's a lot of people around here who's real down and out.

Deidra: The population of people I serve are those in the bottom of the basket, you know. That have always been affected by different plights and now we are

suffering through a great big one. And everybody has dropped a level and those on the bottom are on their back – and it just as simple as that.

George: Lot of people are losing their homes, their cars. Here they have problems paying their rent – foreclosure of homes, people being evicted.

Candice: I had a boy come to school last month. And I said, “Justin, you stink.” And their water was cut off. His dad got laid off you know.

John: It’s hard to sustain when you don’t have any money, waiting on money to come once a month and it’s spent before you even get it – but it’s a blessing even to be seeing that.

Participants also related joblessness to the increase in drug trafficking – an underground economy that has risen as jobs in the inner cities have declined (Wilson, 1996). Participants spoke about the “trickle down effect” and the need to “lock your windows and doors.” Another participant discussed the difficulty in finding jobs and stated “that being a drug dealer” was one job he could find. Links to the rise in drug trafficking to joblessness is described in the following passages:

Steve: I think that the absence of viable jobs is a leading to those problems [drug use and drug trafficking]. And I think that because of the continuous pull out of factories and this no longer being a factory town is causing us to resort to those things.

Annette: We need to open up the doors to the young people so they don’t have to turn to drugs, sell drugs, that sort of thing. Children here, they can’t get a job because they got that one strike. They want to go into the military but they got that one strike. So the best thing they can do – the only thing they can do – is sell drugs.

### **Rampant Drug Use and Trafficking**

Many participants described the problems of drugs and drug trafficking in their community. In some neighborhoods near the community center unencumbered drug trafficking and use along major city thoroughfares was observed during daytime hours. According to the center’s administrators a drug rehabilitation center is located near the community youth center. During a reading session camp students discussed the

consequences of drug use. In addition, four study participants admitted to “drug problems” they had recently overcome while they spoke about the problems of drugs in their community. They also related the fallout of these activities to escalating crime and violence. Additionally, several participants described their “fear” of drug trafficking in their neighborhoods and the negative influence on their youth. Participants’ descriptions of the problems of drugs and drug trafficking follow:

Sherrie: Well, it just seems like the drugs have taken over. They are renting out their homes to people and then most of the people they rent to are drug dealers. And that just brings a lot of activity – negative activity to your community.

Deidra: Before they get to our classroom they done smoked their marijuana, they done smoked their crack. We have kids on crack! We have 14 to 18 year old kids on crack! That’s unbelievable!

Lisa: It was basically young boys and the drugs and every time you turned around the police were being called and I have my family here – my daughter and my grandkids. That area was scary.

Trinika: The gun and the drug the violence around my neighborhood – a lot of kids think they are grown and want to sell drugs and stuff like that. They have guns and stuff on them. I don’t know.

Rodney: But now our crime rate has increased, our children is being hurt, robbed – because he has nice rims that spin around.

These passages closely link the problem of drugs to violence and crime in the inner-city. Participants spoke about their fear of crime and violence from the fallout of drug activity in their neighborhood. One participant had recently moved from an inner-city neighborhood fearing her two sons would be at risk and described the open nature of drug trafficking. Another participant described “not being able to walk to the neighbor’s house” because she feared all “the people standing around out there.” A de-sensitization toward gun violence among younger generations also was exhibited during a staff orientation training exercise at the community center. Participants and their partners were



asked to act out certain scripts. When the instructor said “confront your enemy” the younger volunteers pointed “finger guns.” The older adults showed fists. In addition, phrases like “that’s scaring me,” “I think it’s dangerous,” “it’s everywhere,” and “I stay inside all the time” illustrate how participants’ link drugs, crime and violence in their community as Anderson (1999) and Wilson (1996) found in their studies of inner cities.

### **Lack of Basic Public Services**

Participants described a lack of basic public services as a problem in their community. Wilson (1996) suggests a lack of basic public services is a symptom of joblessness and escalating crime and violence. Participants frequently referred to blight or “vacant buildings” and “trash.” One participant said she “detested those boarded up houses”; another spoke about “trash in the alleys and various things.” Several described a lack of “social services” such as fire departments and community recreation centers for children. Some participants discussed the disparity and lack of resources available to their schools. As one participant conveyed “we need to save our schools.” Participants’ descriptions of a lack of basic public services follow:

Ronelle: There’s not really a community center like a pool, basketball – things for people to do. You would always have to drive out of the area to another park or something.

Trinika: I guess there used to be this fire department, and I guess you could walk over there and tell them [about crime], but there’s not a fire department no more.

Sherrie: The trash – the trash – the stuff they throw down. It’s just like always you got to pick up trash constantly because people are just throwing stuff everywhere.

Eloise: Most of all I think you have a lot of trash out. The homeowners if they want to keep their yards nice have to go out and pick it up after them. Bottles – anything.

Lisa: Well, I guess in some of the neighborhoods it's the way some of the neighbors and stuff kept their homes. You know, trashy. And I mean cars and stuff piled up in backyards, grass not being cut, houses that looked like they were being abandoned.

With the decline of jobs in the inner city and the increase in crime, basic services such as doctors' offices, Laundromats, pharmacies have also disappeared (Wilson, 1996). Buildings and properties are not maintained and street lighting is spotty (Anderson, 1999). As one participant described: "A lot of people living here don't have a lot of money to put back into the infrastructure that we already got so we got a lot of buildings that go unused, so it really just spreads down from there."

Observations supported participants' claims and showed basic services like pizza delivery are not available to residents. Stores have visible security walls, cameras, and plexi-glass to protect workers. The neighborhood grocery store is described as "nasty," and some residents admit to driving farther to the "cleaner" store. References to "empty houses and stores," "infrastructure left behind," "more security," "a lot of trash," "houses should be condemned," and "we don't have anything for them [children] to do" reflect a lack of basic public services – services that more affluent communities might take for granted. One participant expressed anger over the Boys & Girls Club relocating from downtown to a more affluent suburb.

Not all participants, however, lived near blight. In fact, some lived in what they described as nice, quiet neighborhoods with acceptable schools. When asked, these participants described their community using phrases as "it's quiet," "safe," and "a place where neighbors care" about each other and their homes – a direct contrast to how participants living in neighboring blighted neighborhoods described their community.

## **Alienation and Absence of Hope for the Future**

Participants mainly described problems of disparity, inequality, lack of positive adult role models, and moral decay in the community. Many participants described the effects on their children's future and related a sense of urgency for remedying problems. On the same hand, they conveyed a sense of hopelessness against problems what one participant called "totally insurmountable." These perceptions and experiences of a community largely reflect what Anderson (1999) identifies as common problems related to escalating crime and violence spurred by concentrated joblessness in the inner cities. Participants' descriptions of alienation and absence of hope for the future follow:

Candice: I know what the high school drop out rate is. This really affects the black community. We are already at the bottom of the barrel, who want to be in the barrel?

Deidra: So, until we are able to rear our children in a manner where we can change their minds and put them on a path and give them some hopes and dreams we are going to continue to be confronted with problems like this.

Raymond: So I would say if I could change anything, snap my fingers, and make a wish, I would wish that more of the African Americans who get college education, college degrees, would come back to the community, live and work.

Lisa: What I'm saying that older generations, they took time, they cared about the kids in their neighborhood, they cared about their neighbors, they cared about their property, they cared about their neighbor's property. They cared about their neighborhood. And everybody worked together and kept their block looking nice and their homes looking nice.

Catrina: And we valued our property and our neighborhoods and took care of things. Now they are placing value on things that don't really matter.

Leon: When I grew up there was little violence in the schools. Today, kids are pushing each other around left and right, always trying to provoke the other one. The neighborhood is declining.

Participants with great frequency spoke about the absence of good parenting and positive adult role models in their community. They characterized the problems as

misplaced priorities and contributed them to teenage pregnancies and drug trafficking. Phrases like “babies having babies,” “parents don’t care,” “parenting is gone,” demonstrate a sense of moral outrage against those causing the problem (Anderson, 1999). At first, it appeared the number of parents and teachers during early interviews may be the reason for a greater emphasis on youth and role models. Later interviews with non-community center parents and teachers, however, revealed similar findings. Phrases such as “moral decay has really escalated,” “the demons we battle,” “we are not on equal footing,” and “it will take a long time before we can educate our children,” illustrate the resulting feelings of alienation and absence of hope for the future that a lack of positive role models, moral decay, economic inequality, and a host of other issues create (Anderson, 1999).

### **Environmental Problems**

Discussion of environmental problems was limited and therefore not categorized. Careful consideration, however, was given to how participants might define environmental problems in their community. Researchers of African American culture and the environmental movement reveal minority communities often hold a much different view of environmental problems than held by the white, middle-class mainstream movement. Communities of color, for example, find little relevance in their communities for protecting “snail darters” and “old growth forests.” Issues like these simply do not fit into their agenda. Instead, they are more likely to view environmental problems as part of the larger social, racial and economic injustices cast upon their community (Melosi, 2006, p. 124). In some cases, participants related their discussion of environmental problems back to the more pressing problems in their community. Some

mentioned trash in people's yard, needles on the ground, abandoned cars, and boarded up houses.

Participants, however, only discussed environmental problems when prompted. On several occasions when participants failed to respond, I described problems for them. Brochures at the community center prompted me to ask about air quality and asthma in an effort to generate discussion. Again, I was careful not to suggest topics, but I wanted to prompt at least some discussion of environmental matters. Once prompted, several participants spoke of "hazardous materials," "chemical plants," "cancer," "boil alerts," "brownfields," and "pollution getting into the ground water" – problems inherent to a former factory town and consistent with pre-interviews with community center leaders.

The following passages illustrate participants' perception and limited discussion of environmental problems.

Wanda: I think that the quality of the water is important. I think we should stop polluting our water. I just think about the dumping that's going on – we don't know what type of sicknesses and what kinds of things are being caused in our area because of that.

Deidra: You got the sewer system over here, you got the landfill over here, we got all these factories shutting down.

George: Landfills. They stink. They mess up the land, the water – all types of stuff. They draw mosquitoes, bugs.

As expected, participants were equally concerned about immediate environmental problems in their community related to blight, trash, and abuse of property. In some cases, participants' discussion of these immediate environmental problems reverted back to the problems of drugs, crime and violence, and the overall decay of their neighborhoods. The following passages illustrate participants' perception of more immediate environmental problems.

Lisa: This one lady had all these bazillion cats in her house. I pictured myself living next door to this lady. And there was such an odor coming from that house. There was feces all around that house.

Trinika: People litter. It's like they don't care. When people go down my street they just throw something out of the window. Even my mom do it – just throw something out of the window. I'm like – I don't know – litter bugs me.

Eloise: Most of all I think you have a lot of trash out. The homeowners if they want to keep their yards nice have to go out and pick it up after them. Bottles – anything.

Jeannie: Litter – litter. Like there is a multitude of glass. ... And then the abuse on public property like our bus stops, the phone booths, that kind of thing. It's just out of control.

References to “boarded up houses,” “trash in the alley,” “abuse of property,” “stuff people drop,” and “how do we know we aren't picking up something that's contagious” describe a different view of environmental problems than the mainstream environmental movement recognizes. Participants were describing the problem in terms of meeting more basic and immediate needs, which may relate to their broader social and racial justice concerns (Melosi, 2006).

### **Enormity of Problem**

Participants defined problems in the community largely as drugs, crime and violence. These problems overshadowed concerns for other problems, including environmental pollution. As the above passages illustrate, participants define this topic broadly – beyond giving specific examples of violence and crime such as drug trafficking and prostitution. They also discussed other problems, which some believed were root causes, such as too few positive adult role models, a lack of community support or caring, inferior school systems, moral decay, blight, and limited social activities and services.

My analysis of problems in the community offers insight into the magnitude of crime, violence and other factors resulting from persistent joblessness in their community. I see this problem as overbearing and multi-faceted. Data show strong and consistent messages well documented and grounded in the theory of life in the inner city, which portray its overpowering nature and help explain participants' extraordinary focus on this topic.

### **Pervasiveness of Problem**

Since the 1960s and 70s black middle class families have begun to migrate out of inner city areas compounding the problems in the cities' toughest areas (Wilson, 1987). Many, according to several participants, moved to the city's edge but no further. This migration out of the inner city undoubtedly contributed to a lack of positive adult role models and increased crime as a result of persistent joblessness as many participants spoke of. And even though these problems are heavily concentrated in urban areas, they do not affect all segments of the community (Wilson, 1987, p. 21). As one focus group participant described her neighborhood: "I live in a neighborhood that is quiet and a place where we help each other out." Most participants, however, related to inner city problems.

Whether they lived in the inner city or just outside, participants' knowledge and experience with this topic was clear. They gave consistent and colorful accounts of conditions in the city; similarly, conditions observed in the community supported their views. Some participants admitted to recently moving away from problems to live elsewhere to protect themselves and their family. Focus group participants included parents mostly linked to the community center who claimed to live in neighborhoods

where they did not personally experience these problems. Of this group, not all spoke of problems of drugs and violence, but some did.

Anderson (1999) underscores the breadth of this problem as one that “wreaks havoc daily” (p. 32) on many residents regardless whether the problem exists in their immediate neighborhood. He says the problem of crime and violence “increasingly spills over into downtown and residential middle-class neighborhoods” and the problems “are now common enough to concern all urban and many suburban residents” (p. 32). This explains why participants consistently referred to the problem of drugs, crime or violence, or its root causes, despite that some described their own neighborhoods as “quiet” and “safe.”

In the following section, I describe what participants perceived their role to be in solving problems in their community. Differences across groups are noted.

### **Ability (Willingness) to Solve Problems**

Positive social capital builds strong neighborhoods (Putnam, 2000). Bridging (linkage to external assets) and bonding (building solidarity) are among the ways the literature defines social capital (Norris, 2001; Putnam, 2000). A precursor to building social capital through bridging and bonding is the belief that what one says and does matters (Putnam, 2000). For my study, social capital was explored through participants’ experiences and inferences of personal confidence in solving problems in their community – environmental or other problems – and their connection and experience with formal and informal networks.

Across groups, participants implied confidence in their personal ability to solve local problems. They described numerous ways they would work through and involve



local organizations, neighbors, and family in their efforts. Many, however, also suggested that despite their efforts external factors might keep them from achieving their goals. At times, factors they described reflected back to the principal problems in their community: drugs, moral decay and community apathy.

Three principal themes emerged from the data as participants described how they would solve problems: 1) Confidence in solving problem; 2) Support networks; and 3) Non-conducive environment. The codes used to identify these themes are defined in Table 5.

Table 5 Principal themes describing one's ability (willingness) to solve problems

Theme	Description
Confidence	Personal role or initiative taken to solve problem; stated belief that their actions will matter; examples of specific actions taken.
Support networks	Examples of bridging (outside groups: PTA, civic organizations) and bonding (friends, neighbors, family) for the purpose of addressing community problems.
Non-conducive environment	External factors perceived to inhibit success (fear of reprisal; time; community apathy; other counter-productive factors).

The codes are partially based on Putnam (2000) and Norris's (2001) descriptions of bridging and bonding, which provided suitable definitions for coding and generally resembled themes that emerged from the data. Participants' descriptions of their own unique problems and my interpretation of them were also used. No notable differences were found across groups.

## Confidence

Many participants illustrated confidence in their ability to solve problems and overall believed they would be effective. They spoke of initiatives taken, hypothetical roles they would play, and their personal ability to solve problems. Some participants spoke without hesitation and exhibited great confidence in their ability or actual leadership role in solving problems. For example, Trina, a college graduate in her 30s, said this:

I like collaborating with other people. And I'm good at getting other people to see my point of view in a non-threatening manner. I have my tactics. I think I could be effective. And once I have made up my mind I'm very persistent – I am *very* persistent – especially if it's something I really set my heart out to do.

In addition, participants illustrated their confidence through personal experiences and in roles they see themselves playing. Some spoke of actions they would take to solve problems near their homes, others spoke of contacting city officials and government offices. Participants' description of their confidence, personal role, and initiative in solving problems in their community follows:

Wanda: But when I hear cussing or derogatory language I would go out there and confront it. You know, you're in front of my home – I'm a Christian – you will not talk like this in front of my home – you cannot smoke out here – there will be no liquor here – you are welcome to stay and play but this is what the rules are.

Catrina: One day I talked to a [city] official and he said it would take him five days to get a letter – I said, you can call me back. He did, and said we can tear down the fence and have the grass cut for you.

Deidra: So, finally I had to get indignant in the social security office to get an answer to my question. But no, they wouldn't talk to me. They turned me away from the window three times, and I just had to stand there and lose my temper! And when I lost my temper, the lady said, tell me what to do.

Mike: They've already started a petition. I've signed it. Other people have signed it. My wife has signed it.

Steve: For me myself personally – I see myself playing a big brother role. That big brother role cause a lot of these kids don't have much to really look up to.

Lisa: When I get angry and tired and disgusted then I stick my foot out my neck out – I confront. If I get tired enough, I confront. I'm going to tell you – I'm a hothead – I'm a real hothead!

Many participant descriptions relayed high levels of personal confidence and will to solve problems. Their discussions included phrases such as “my mindset is not to sit still,” “I would knock on the company's door and say ‘hey!’” “I would be a one-woman crusade,” “I get people to listen — I draw crowds,” “I would go door-to-door,” “I refuse to sit down and not do anything,” and “if I can get to just one.” On only a few occasions did participants suggest a lack of confidence or effectiveness in confronting power structures (government, businesses, etc.). The examples mainly included federal government, large corporations, and mass media. George, who is unemployed made this statement, which implied a sense of helplessness in stopping local industries from leaving: “Because it is big industry and if they want to move they gonna move and that takes away a lot of opportunity from us.” Rayelle believes media cannot be a trusted ally in helping her community. She suggested “you can't trust media, because they don't portray the proper picture – television, newspaper, whatever.” Joelle, listening to another participant discuss problems of noise in her neighborhood, responded: “That's a big money maker – that's a new school – that's a money issue. It's probably not worth fighting.” Despite these few comments, participants implied a penchant toward strong individual community advocacy and a sense of personal social responsibility in solving their community's problems.

## **Support Networks**

Effective community advocacy depends on the strength of social networks (Putnam, 2000). Bridging (linking to external assets and information) and bonding (building solidarity within groups) can have “powerfully positive social effects” (Putnam, 2000, p. 22-23). Participants described strong local networks they would turn to in solving problems. For example, Dashawna, in her 20s, described the community center where she works as way to link to authorities and other members of the community:

I would network through here. This place has a lot of links. Like [the director] ... he knows a lot about that kind of stuff. He knows everybody and their grandmother. Everybody here has some kind of link with somebody.

In addition to the community center, many members spoke of the city’s priority boards: cooperative neighborhood councils governed by residents and city officials, which serve as a direct conduit to the mayor’s office (City of Dayton., n.d., Citizen Participation, retrieved 2008). The mayor, whom participants spoke favorably of, is an African American woman whose father formerly served as mayor and who has spent several years in the Ohio House of Representatives. The high number of participant references to these local civic boards implied a positive record of success in addressing community problems. Two participants had previously served on the boards alongside city officials. In addition to priority boards, participants also named various community organizations, churches, neighborhood watch groups, local media, and family members as networks for help in solving problems. Participant descriptions of how they would bridge to outside organizations follow:

Wanda: I have a couple of friends who work for the water department so that helps. I would talk to them.

Jeannie: Well, the most I've done personally is get involved in my daughter's school. Any activities they have, I become active in. And the neighborhood meetings and what not, I have attended some of those.

Cody: I would go directly to 2 News if I really knew there was a problem. I know a cameraman who works for 2 News. I might also call the state government.

Glenda: First of all I would make an agenda and I would go to the churches with an announcement. I could go to the housing – the senior housing. I would try to get as many seniors involved as I can, because I keep telling them that they can make a difference.

Participants also described turning to family and personal friends for help or spoke of efforts to bond with other individuals in their community. For example, Christina described how she would organize support as this: "I would call the ones that I know, personally. And then set up a meeting, you know, probably at my house. And tell them what my interests are." Many participants mentioned "block parties" and "neighborhood watch groups." Participants living in apartment buildings described their experiences in mobilizing support among neighbors. Annette, who helped locate participants living in her apartment building for the study remarked: "I have a lot of people here that can help. Just let me know how many." This not only showed her ability to network but her confidence in doing so. Other participants discussed how they would enlist family members such as their "mother," "niece," and "granddaughter" to help them. Many references to "involving the neighborhood," "you have to come in numbers," "we are close and we see about one another," "protesting as a group," "knowing how to network," and "calling everyone living in the area" indicate a preference for and reliance on social bonding through personal support networks in solving problems.

Overall, participants named a host of bonding and bridging networks they would turn to. Most responded in a hypothetical context to the question but followed with

specific actions personally taken or organizations in which they belong. Group membership ranged from highly organized groups (priority boards) to less-structured groups (social networks in apartment buildings, community watch groups).

Only a few participants, however, referenced larger, outside network organizations: “writing a congressman” and “contacting the state.” The only highly organized external group mentioned was the National Association for the Advancement of Colored People (NAACP). No participants described working with local or national environmental organizations. Despite a largely positive view toward local organizations, only a few participants expressed distrust in outside organizations. They spoke in general terms such as “they are all criminals” and “I’m really, really frustrated with the whole system,” and “what do you do, who do you turn to?”

Overall, participants spoke favorably about their efforts to bridge with local organizations including priority boards, local schools, and the community center. They spoke equally favorably of working with their families, neighbors and other close personal bonds. When asked how successful their efforts would be, participants revealed another side of community advocacy. While they were confident in their personal abilities, they were less so in their efforts to galvanize support beyond their close personal ties. This additional finding is described in the following section.

### **Non-conductive Environment**

While participants were mainly confident in their personal ability to solve problems and cited a healthy number of positive networks they could turn to, they also described notable impediments. Participants believed a fear of retaliation (problems of crime and drug trafficking), apathy from the larger community, and a lack of personal

time due to considerable family and work demands would impede efforts to unite their neighborhoods and to advocate positive change in their community. Participant responses suggest to me problems described earlier (joblessness, crime, moral decay), in some capacity, are contributing to a non-conducive environment for action and change. This would imply farther reaching effects of the previously defined principal problems – effects that counter their efforts to mobilize community support and therefore weaken social bonds (Wilson, 1996). As an example, Wanda discussed how she and her neighbors tried to stop drug activity in her former neighborhood. She described the discreetness of their actions to avoid retaliation and the ineffectiveness of their efforts. She described her experience as this:

There's really a lot we could do but you just don't have time because you're tired, you know. And then there's a thing of fear. In my neighborhood, we started doing the call-in where you had the number and you could call in and report drug activity – and so we would do that – you know talk privately among ourselves like “did you call – did you call?” So, we would let each other know which houses had the activities and begin to bombard that system with calls. And we saw that it was beginning to work. But of course, when they closed one house down another one opens up.

Phrases such as “people are really afraid in the inner city,” “people are scared,” “people are almost captive in their own homes,” and “a lot of them are afraid” illustrate the overpowering nature of the problem of crime as an impediment to individuals' ability to confront these problems and their ability to unite others to fight against them. As Wanda advised: “We have to be not afraid to speak out against things that we see are not right.”

Participant descriptions of a non-conducive environment also linked to their concerns of community apathy, which they viewed as a major problem in their community. They spoke frequently about “misplaced priorities,” “disrespect for the

community,” and “eroding morals and values.” Some participants simply believed a large number of people in their community no longer cared. As Lisa said in response to organizing a block party, “I think that would be fun if you could get people to participate. A lot of people don’t want to be in other people’s business. A lot of people don’t care anymore.” Trinika saw “people as being super lazy and not wanting to do anything.” She also saw people’s self interest as an impediment to their involvement and believed people do not participate because “[they] are always looking for something in return.” Others, like Christina, expressed a similar distrust when discussing the potential consequences of mobilizing support in her community and the need to enlist “people who won’t leave me standing on the front line by myself because you know that happens a lot.”

Phrases like “basically [they’re] here to look out for themselves,” “you don’t have a parent you can call,” and “they won’t listen to anybody” illustrate participants’ perception of a non-conducive or counter environment working against positive change. While many participants described themselves confidently as change agents, they also acknowledged the overwhelming force of community apathy. As Rayelle described “those other ones who outweigh them don’t care so the battle is lost.”

Some participants cited disrespect for the community as evidence people no longer cared. Observations and discussions with key informants suggested declining community stewardship and a lack of community caring manifests itself in a noticeable lack of respect for the community. Open acts of vandalism (kicking over trash cans), property destruction (vandalized cars), and widespread littering were examples given. As a key informant inferred, “People lack respect for their community – they just don’t care anymore.”



Other participants cited misplaced priorities as reasons people in their community no longer cared and were apathetic toward collective action. Participants believed a growing number of people in their community did not value vital community services like education; rather, they valued material items. Several participants inferred people's values today are different than when they were younger. Catrina noted "we valued our property and our neighborhoods and took care of things. Now they are placing value on things that don't really matter." Candice, a school teacher, implied "sports" and material items like "tennis shoes" are valued over education – a message she believes is being passed from young parents to their children. Many participants spoke about the implications for their community if this cycle persists and problems continue to mount on top of so many obstacles they already face.

Finally, participants cited a personal lack of time due to work, family and other responsibilities as a barrier to civic involvement – in some cases, even their own. Melinda emphasized the importance of community involvement but also personal constraints:

I mean everybody just has to participate in what's going on. And a lot of times you get people who just ignore it and actually don't have time. That's a major issue – time. You have to make time if you care about your community.

Many female participants were single parents; some were caring for other family members (parents, grandchildren, siblings) in their homes. Several participants worked second and third shifts limiting their availability during prime meeting times. As Tachelle recognized "You have to have programs that allow parents to get involved in, but they have working parents who go to work every day trying to make ends meet."

Overall, participants were confident in their personal ability to solve problems. They cited a number of support networks that would help them bridge to external

resources and bond with close personal contacts. They spoke mainly of local organizations; seldom did they mention larger outside organizations. While they were optimistic in their personal ability to solve problems they equally recognized other obstacles to community advocacy – mainly fear, growing community apathy, and a lack of personal time due to considerable personal responsibilities. Jaleesa, in her 20s, summarized the ramifications of a community not working together. She spoke in terms of what other participants had conveyed when she said, “I think, quite seriously, if we don’t help each other it’s all going to get us all eventually.” In the following section, I discuss how participants described media they would use in solving community problems.

### **Media Used to Solve Problem**

A central objective of my study was to identify whether participants viewed the Internet as a civic engagement tool, and if not, what media they would be more likely to use. Participants were first asked to describe “how they would go about solving this [environmental or other] problem.” To clarify, they also were asked: 1) How would you stay informed about a problem in your community, and 2) How would you organize support for solving this problem? The Internet was not mentioned at this point in questioning, but participants were aware the Internet was the subject of the inquiry.

To stay informed about community problems participants described a variety of methods mainly involving some form of mass media (TV, radio, newspaper and Internet). Participants from both groups varied in their use of technology to stay informed. Differences across Internet use groups are noted. For mobilizing support, both groups clearly preferred face-to-face communication. The combined use of mediated and

interpersonal ties as tools for solving community problems is common and has been linked to positive and effective civic engagement. Active interpersonal communication and media use allow individuals to share experiences, to learn about important matters, to voice concerns, and to connect with others (Kim, Ball-Rockeach, 2006).

Two principal themes emerged from participant responses about how they would use media to solve problems in their community. The themes are presented in Table 6.

Table 6 Principal themes describing media used to solve problem

Theme	Description
Mobilizing support – face-to-face	Face-to-face communication; knocking on doors; neighborhood meetings (block watch groups); telephoning, petitioning, etc.; (personally) passing out flyers.
Staying informed – mediated	Internet; traditional mass media (television, radio, newspaper, etc.).

### **Mobilizing Support – Face-to-Face**

A clear preference for face-to-face communication for mobilizing support and action across high and low or Internet use groups emerged from the data. Participants largely described their efforts as a patent grassroots movements for solving mainly environmental problems and spoke often about how they would (or have) mobilized groups to act. Overall, participants showed a preference for close physical contact between them (the messenger) and others (the source) in solving local problems, and at times described their tactics as somewhat confrontational. To illustrate, two participants mentioned taking an “Erin Brokavich-type” approach, reflecting a *provoking, highly*

*personal, attention-getting* type strategy for fighting environmental and other social

justice causes in their community. As Joelle, a regular Internet user in her 50s, described:

I would probably involve the neighborhood so that I could get the attention of the city commissioners and the mayor and all those people. Because until you get people in those positions involved you're not going to really make any headway. It would be just like that movie – where everybody in the community – yeah, Erin Brokovich.

Many participants' responses reflected a highly energized, somewhat brazen approach. For example, Michelle, who is highly educated and in her 50s, believes you should meet head-on with those who have responsibility over the problem "so they see that you are angry." Candice, a teacher in her 30s, states "Me? I'm good at anything. I have a mouthpiece! I get people to listen! I draw crowds!" Like Candice, Kendra, in her 30s, also suggests an unabashed approach to solving problems: "I'm confrontational. I like to see your face." Other participants also described how they "would go straight to the source" and "knock on the company's door and say 'hey!'" Rayelle, in her 40s, underscores the point and also speaks about the importance of collective action in this passage:

And you have to be strong. I mean you have to come in numbers because if it's just a chosen few, those regulars they will start ignoring it 'cause they get used to seeing you at city hall complaining and griping to get something done. You know, here they come, this group again.

Like Rayelle, other participants spoke about "protests" and collective approaches to solving problems despite their concerns of a non-conducive environment (community apathy, fear of retaliation, and a lack of personal time) as the aforementioned discussed. Overall, participants descriptions imply a strong link to grassroots-type tactics. In addition, a few mentioned the church as a place to unite and seek help and described how

they would “meet at the church” and communicate face-to-face with “different people that way.” As Catrina described:

I would probably go through the churches in the different neighborhoods and talk to them – the church community and see if we could use their facility and have kids talk about morals and values but they can still have fun at the same time.

Interestingly, only a few discussions overall mentioned church as an organization they would turn to for assistance with problems despite the church’s storied history in the black community (Stoll in Glave & Stoll, 2006). My data do not offer any conclusive answers, although one participant described a growing sense of mistrust with some of the local churches. The data, however, are inconclusive and do not indicate the churches’ role and influence in the community is in any way eroding.

The references to protests and group involvement sometimes related directly to personal experience with using these techniques to solve problems in their community. In describing how her neighbors resolved concerns over ground water pollution in her neighborhood, Michelle explained: “They went to the township. They protested, as a group.” Similarly, Melinda described her and her neighbors’ response to a proposed new landfill as: “They basically put signs in their yard – they had meetings with – petitions – city meetings. The residents all showed up for the meetings.” Overall, participants implied patent group support would be most effective for solving their community’s problems.

While energized group involvement was frequently mentioned, some participants did describe a less overt approach. Even so, participants still emphasized their over-riding preference for face-to-face communication. For example, Catrina, in her 40s, noted her more restrained strategy for mobilizing support as this:

I would go through the telephone book and call everyone living in the area and say “Hi, this is Catrina – it’s not a telemarketing call” – and you know – get that little nice girl voice going.”

Like Catrina, Christina, a working professional in her 40s, said she “would call the ones that I know, personally, and then set up a meeting, you know, probably at my house.”

Overall, participants made many references to tactics that involved interpersonal (face-to-face) communication. They spoke of “meetings,” “telephone calls,” “passing out flyers,” going “door-to-door,” and other interpersonal strategies for galvanizing support. In all approaches, both high and low Internet access groups demonstrated a clear preference for face-to-face communication – often referencing it specifically as Raymond, a community center volunteer and infrequent Internet user, did: “Yeah, yeah and talk to them about – face to face – yeah – and invite people on the city commission to attend the meeting.”

Being able to see how people react and an affinity for traditional methods are among the rationale participants gave for wanting to use face-to-face communication to unite support. Sherrie, an occasional Internet user in her 40s, explains the benefit of reading people’s reaction while communicating in this passage:

To me I’m so used to talking to somebody one on one. I like to look at their reaction. I like to see how they react to something I’m talking about and I feel passionate about. If I feel that there is a passion in them and then you know I can make a connection. Their posture – the way they act – if you’re talking about something they don’t want they have a way about themselves and that’s why I like the one on one.

Leon, a community center staff member, agreed “seeing the other person’s reaction” was important; although he also admitted this may be “out-of-habit” and a case where people are tied to “the old ways.” Like Leon, Wanda questioned the rationale of face-to-face being more effective and believes the fondness toward this interpersonal grassroots style advocacy may simply stem from strong cultural ties to earlier grassroots movements. She

suggested this: “You think that it’s more effective because you are talking person to person. I don’t know that it is indeed more effective, but that is from like the grassroots movement – you know, people are just tied to that.” Observations during focus group selection also support their preference for face-to-face contact. To recruit participants, letters were prepared providing details for the sessions. Community Center staff assigned to help with recruitment advised me to let them hand deliver the letters as parents arrived at the center. They believed this would be the most effective method for ensuring the numbers needed for the session.

A primary objective of my study is to understand if participants viewed the Internet as a tool for environmental advocacy. In the case of mobilizing public support they clearly did not. A few participants claimed they would “call the news,” start traditional “letter writing campaigns,” or “use the Internet” as a tool to mobilize. As Marisha a regular Internet user stated, “Never let the Internet become your voice. I mean I think a lot of us will get involved in using the Internet. And after a while we let it become our voice, our face, and it really shouldn’t become our face.” Tachelle, an infrequent Internet user in her 20s, agreed and simply stated: “Even important stuff that I know I will get done over the Internet I would rather do in person.”

### **Staying Informed – Mediated Communication**

To stay informed of problems in their community, participants preferred mediated communication (technology). Regular Internet users spoke frequently of the Internet; less frequent and non-Internet users relied mostly on traditional media, including newspapers, television and radio. A few low access users claimed they would turn to the Internet,

given access, and three participants described interpersonal communication as a preferred method.

High Internet group participants spoke positively of the Internet as an essential information source and research tool. They often viewed this as an important first step in solving their community's problems. As Kendra, a regular Internet user testified "I would use the Internet, first of all, to find out the right information." Trina suggested a similar approach: "I would find out statistics and gather information online first and then try to see if other people are having the same problems." Participants implied being (or staying) informed was an important first step in community advocacy. As one participants said, "When you go to city hall you want to have all your ducks in a row. You got to have all your ducks lined up – you can't go half cocked." To achieve this goal, regular Internet users declared the Internet their choice tool for staying informed.

Regular Internet users were knowledgeable of the type of online information and how to access it. They discussed the efficiency of the Internet as an information source and the array of online information. Participants described how they could use "electronic searches" to look at budget allocations around the state [for education], to find "case histories" [for environmental problems], and to locate health "statistics." Some participants went further and described the Internet as an increasingly essential life tool. As Catrina testified "Now you really can't find out a whole lot of stuff without the Internet." Like Catrina, Paulina also views the Internet as an indispensable tool. During a discussion of environmental concerns in her community, Paulina simply remarked: "You can't get statistics about who's dying of what without it."



Regular Internet users' positive remarks about the Internet as an efficient and essential information tool were not reflected in their descriptions of the Internet's ability to amass public support. Only two references were made to "e-mail" and "chat rooms," and only one participant described "Internet protesting." In fact, one participant – a regular Internet user – made clear participants' principal view of the Internet as an information source for problem solving when she said while discussing the versatility of the Internet: "I think the Internet would just probably be good for research."

Non-Internet users, in contrast, spoke mostly of traditional media as a means to stay informed. Most referenced television news as their primary information source for what is happening in their community. Lucille, a non-Internet user in her 70s, described her method of staying informed of community problems as this: "I look at TV to see what's going on – overall in Dayton. And I keep up with what's going on that way – mainly TV." Tachelle, an infrequent Internet user in her 20s, also uses television to stay informed. She described to me in detail her television routine:

I would use the news to stay informed – television mainly. Most of the time I try to watch the news, but I don't always get to it depending on other activities. But if I can, I will watch it. If I don't catch it at the 7 o'clock then I always catch it at 10 o'clock.

Other participants also referenced television as a major source of information. Trinika, in her late teens, mainly uses television after her newspaper was cancelled, and Wanda, in her 50s claimed, "I've always got a lot of information off the news. They usually cover it [crime, other problems] – TV news – the evening news."

Although low Internet access participants spoke primarily of television and other traditional media for staying informed, some did acknowledge the benefits of the Internet as a research tool. For example, one participant described to me a hypothetical approach

of gathering information about an environmental problem. In discussing concerns with his community's drinking water supply, Cody claimed, "If you watch a lot of local news you'll see they have a lot of boil alerts." Cody, a low access Internet user implied another solution to getting information about the safety of the drinking water supply: "Go to Yahoo and type in water quality and Dayton, Ohio."

Only a few participants, a mix of infrequent and non-Internet users, described interpersonal contacts as information sources in addition to traditional media (mainly television). One participant described "friends at the water department"; another participant suggested asking a friend in city government to help her. Eloise, in her 70s, does not use the Internet even though others in her home do. She described her method of staying informed as this: "Well, we [neighbors] would need to stay on a talking basis, you know. So, 'let's get together tonight and talk about some things.' And then when something pops up, we all know what's going on, you know." Interpersonal communication was also a primary source of information for Jeannie. Jeannie, a single mother in her 40s who is legally blind and a low access user, said she relies on "word of mouth" delivered through what she calls a "strong network of support," mostly family and friends. Tachelle, on the other hand, prefers going to different organizations she knows that might have information, or as she said, "going around and asking people if they know anything about it or can point me to someone who does." In all, most low Internet access users turn to traditional media – mainly television – to stay informed; a few relied on interpersonal channels for information about problems in their community.

Overall, participants preferred interpersonal (face-to-face) communication for mobilizing support and taking action in their community. They described to me patent

grassroots-type methods as effective ways of bringing attention to and solving their community's problems. On the contrary, most participants told me they preferred mediated communication (via technology) for staying informed. Regular Internet users frequently cited the Internet as an information tool but not a tool for amassing support. Infrequent and non-users noted the Internet as an information tool, at times, but primarily depend on television as their primary information source. In the following section, I discuss participants' perceptions and use of the Internet and how they make sense of it in their everyday lives.

### **Making Sense of the Internet**

To strengthen my understanding of how participants would use the Internet for problem solving in their community, I asked them to describe what it meant to them in their daily lives. According to Rogers (2003) "perceptions count" (p. 266) and can influence a person's decision to adopt and their later use of the technology. I therefore wanted to see if participants perceived the Internet in manner conducive to future online advocacy – a view consistent with their earlier claims. Participants were asked broad questions like: What is it about the Internet that makes you use it (or want to use it)? What is it about the Internet that makes you not want to use it?

Participants foremost viewed the Internet as an important and efficient information source – a source they would use to help them with school, their children's school, work, finding work, and important personal matters such as their health. Across groups, participants held a positive view of the Internet and believed it was a necessary tool for their future, and especially their children's. Internet use for education, work-related activities and finding work dominated most discussions of the Internet. In fact,

most participants told me their first online experience was through these activities. In some cases, it was their last online experience. Although participants largely held positive views of the Internet, some concerns were mentioned.

Notably absent from this discussion was participants' view of the Internet as a communication or social networking tool – one they would use to interact with family, friends and other people. This is in direct contrast with studies that show a majority of Internet users favor online communication over other applications (Wells, 2008). Neither high nor low Internet access groups tended to mention these type activities, except on a few occasions. At the end of this section, I discuss reasons why and how this finding relates to their view of the Internet for community advocacy.

Three principal themes emerged depicting participants' view of the Internet. As before, I organized these themes into main categories, which are presented in Table 7.

Table 7 Principal themes for how participants view the Internet

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Theme	Description
Beneficial information source	An efficient database of information; information source and tool for school, meeting personal goals, work and finding work.
The future!	Necessity, the future, cannot function without it; feelings of being forced online or left behind; a need to learn skills.
Concerns	Internet isolates users; depletes important communication with family, friends; online predators; privacy; inappropriate content.

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When applicable, I illustrate dimensions within each category. In several cases, participants' ethnographic accounts showed remarkable consistency with research

conducted in other low Internet access communities. Throughout my discussion, I describe how my findings relate to these studies and contrasts with national studies of Internet use.

### **Beneficial Information Source**

According to diffusion studies, people adopt innovations based on certain attributes the technology affords them. The strongest of these attributes is its relative advantage or “the degree to which an innovation is perceived as being better than the idea it supersedes” (Rogers, 2003, p. 229). Compatibility, or “the degree to which it [the technology] meets a felt need,” also is a powerful indicator (Rogers, 2003, p. 246). Together, these attributes can have positive effects on a person’s decision to adopt. This not only influences their decision, but also how they use the technology once they have acted on that decision (Rogers, 2003).

In my study, high and low access groups viewed the Internet as an efficient and irreplaceable information source. They viewed it primarily as a tool that could help them solve problems related to school, their children’s school, work, finding work and important personal matters (see Figure 2). For most all of my participants, access to unlimited information and the speed in which it could be obtained were extraordinary benefits. They frequently used terms such as “efficient” and “time saver” to describe their online experience and spoke of the Internet as a superior information resource. As Talicia described it: “I mean you can look up anything. I mean back in the days I used to have to use the thesaurus, dictionaries – it’s quicker.” Others described the Internet in a similar fashion often noting its importance as a research tool and one that would help them advance educationally and economically.

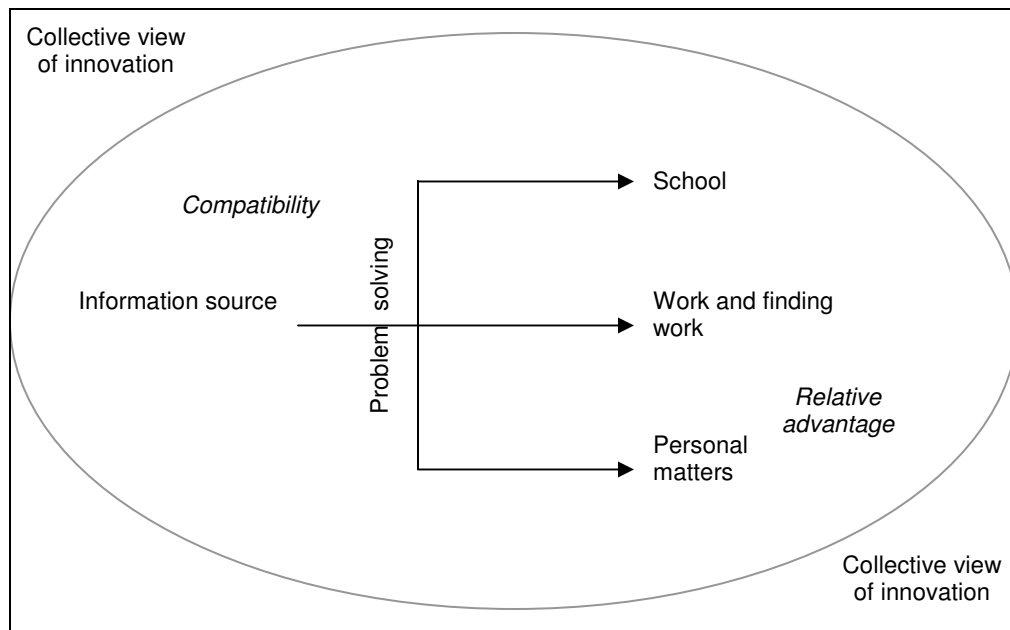


Figure 2 Collective view of Internet as information source for school, work, finding work and personal matters

Other participants described the Internet like this:

Jeannie: Yeah, 'cause there's a wealth of information right there. You just type it in – you can pick and choose – and there's probably more information than what you want or can even consume.

Catrina: Yeah, but it's a good tool. Because like I said, it's the information highway – it's a click of the finger.

Lisa: A lot of the information I didn't even need to know, but the major stuff I did need to know was all there in black and white.

In the United States, employers and educational institutions have strongly influenced Internet use and were responsible for its early rapid diffusion (LaRose and Hoag, 1997 in Rogers, p. 346). Scholars who have studied the diffusion of the Internet and other technologies agree that, in many ways, the Internet is considered an organizational innovation (Rogers, 2003). My findings, in many respects, illustrated this strong organizational influence, which forced people's use of the technology. For many

participants, like Candice, school was their first experience with the Internet, where they had no other choice than to go online.

As Candice explained, “I started really, really using it when I took classes at the community college – now I can’t live without it.” A large number of participants had attended this same urban community college, which serves the immediate area. Some, like Joelle had taken “classes online” and used the Internet to register for her classes. For these participants, they used the Internet as an information source to help them meet important needs – their education. Several participants admitted to only using the Internet for school. This connection to education is made even stronger through their many references to online research. Phrases like “I use it for research,” “you can have someone [go online] and research it,” “when my kids have to do research,” “we had to research stuff,” and “she wanted me to research and look it up” further demonstrates participants’ view of the Internet primarily as an information source.

This link between the Internet and participants’ education (or in some cases their children’s education) is illustrated as follows:

Deidra: For school I have to do a lot of papers, you know, researching certain information and using it to download – send my work in – I don’t know what you call that, upload? But besides that I don’t have a lot of use.

Tachelle: I’m a very low Internet user. I really don’t – just other than doing research for school or work.

Lisa: Oh yeah – when I was in school I used it for research – that was easy access. It was easy and helped me in school.

Wanda: And when I was in school I would use it as required. But just personally, at home, I haven’t used it because I don’t have it.

Paulina: Especially, if your kid has a report to do, you can now go to the Internet. Any kind of science project you don’t know about – you got it right there.

In addition to meeting educational needs, high and low access groups also described how they mainly used the Internet to complete tasks at work, and for some, to find work. For many low access Internet users, work was the only access or experience with the Internet they have had. Like school, some participants admitted to exclusively using the Internet for work. Once again, they mainly focused on the Internet as an information source they could use to locate what they needed. A few high access users described e-mailing co-workers or supervisors at work, but it was strictly related to work responsibilities.

Participants also described the Internet as a primary – and sometimes the only – information source for finding employment. Unemployed participants talked about using the Internet for job hunting; employed participants discussed how local companies like UPS, FedEx, Target and other retail centers exclusively used online applications for hiring. Observations while visiting businesses in the community supported these claims. As Joelle, a regular Internet user described the situation: “You cannot walk in any place and pick up an application. You have to go online.”

Participants here illustrate their view of the Internet as a principal information source for work and finding work in their community:

Charlotte: I use the Internet at work, but when I come home I don’t use it at all. I use it a lot to get information for my job.

Trinika: It’s like, if I do go on the Internet, I do the same thing – review what lesson plans I have. It’s like a five minute thing.

Tachelle: I really don’t have a reason to use it. So, the only time is when I may have to go online here [at work] to find activities for children to do.

Lisa : So, I’ve been saying that I’m going to go to the library and research and see if there’s more jobs out there for me.



Not all information seeking, however, was for school and work. Participants also viewed the Internet as a beneficial information source for dealing with personal problems and meeting personal goals. They described how they used (or would use) the Internet to locate information about personal health matters, book writing, and starting home businesses. This was particularly true among low access users, although many high access users also referenced personal online queries:

Stephanie: It's like anything else in your life and you become addicted to it. I look stuff up and then go to the doctor and say "I got this and that!"

George: I would go online for medical information. I'm a diabetic. I would like to research how far they've come with different cures for diabetes and different ways I could order my medicine.

Raymond: I might later, when my kids are grown, learn to use it. I like to write, so I might use it to do research for a book.

Wanda: I would probably surf Christian Web sites and things related to my business, because I do a home business – so I would do stuff related to that.

Randall: I use the public library's computers. I'm wanting to find information about small businesses and stuff. I want a business.

Overall, participants held favorable and consistent views of the Internet as an information tool for education, work and finding work. While employers and educational institutions seemed to have the greatest influence on participants' Internet adoption and use, the common notion was the Internet is best for information seeking. Largely, their views focused on the Internet's information capabilities with little discussion on other applications such as e-mail.

"People turn to the Internet more than any other source of information and support, including experts and family members" (Estabrook, Witt & Rainie, 2007). My findings show participants clearly viewed the Internet as a tool they could use for

research and information seeking. Interestingly, several participants with no online experience whatsoever shared this view. According to Rogers (2003), once a majority of people adopt a particular innovation their use of the technology establishes a sort of social norm, which those who have not yet adopted observe and evaluate. From this, they begin to shape their opinions of how this technology might benefit them and decide whether adoption makes sense (Rogers, 2003). Research specific to Internet diffusion also suggests social settings influence use of technologies (Liu & San, 2006). Non-Internet user participants were not, in any way, strangers to the online world. In some cases, they were quite articulate about Internet use. In most cases, they either had exposure to the Internet at one time through work or school, or had experienced it daily through others close to them, including family and friends.

Despite some studies that report a less advanced use of the Internet (e.g., entertainment, games, downloading music) in low access communities, my findings suggests otherwise. In this case, participants turned to the Internet for very specific reasons and for help with important matters. My data appear to corroborate a growing amount of research that questions earlier claims that minorities' use the Internet in a less than beneficial way (Jackson et al., 2004; Marriott, 2006; Rojas et al., 2004). Across groups, the Internet's potential to help them research and stay informed of matters of personal importance prompted their desire and use of the technology. Only one participant spoke of entertainment as reasons for going online, and did so in an almost apologetic and regretful way. Lisa, who is currently unemployed but looking for a job, said one reason she does not like using the Internet is because the time she spends playing

games. She remarked, “I have to have discipline to get away from those games. I mean, I messed around with this one game forever – that’s not good.”

Where these findings differ from most Internet users, is the use of the Internet as a communication technology. Noticeably absent from participants’ discussion was the use of the Internet for communication related activities, such as e-mailing friends or family or participating in chat rooms. Across groups, only two participants mentioned e-mail and or social networking sites, such as “MySpace,” despite being given the opportunity to discuss their use of the Internet in broad terms. These findings are in direct contrast with national surveys of Internet users, which show social networking is a favored Internet activity among most users and is the reason most went online in the first place (Wells, 2008). My findings show participants began using the Internet for school and work; therefore, this has likely shaped their view and use of the Internet over time.

My findings, however, are consistent with studies of adults living in other low Internet access communities. In low access communities, the reason is simple: they have fewer family and friends online, and therefore they have less reason to use it (Jackson et al., 2004). During my interviews, participants described family members and close friends in the community, especially elderly neighbors, who lacked Internet access. As a result, it makes sense they would prefer more traditional channels of communication. For them, it is more effective and reliable.

Overall, participants viewed the Internet as an information source that could help them with school, work, finding work and personal matters. Consistent with the literature, what first drew participants online helped shape their views of the Internet. This also seemed to help shape the views of others around them. This strengthened my

understanding of the high Internet access group's preference for the Internet over other types of media for staying informed of problems in their community. The findings also suggest members in the low access group might too one day adopt the Internet for such purposes, given the ability to overcome barriers now preventing them access. This group recognized the Internet's relative advantage in their lives, and they viewed it as a source that can help them meet personal needs – important factors that positively influence adoption according to diffusion research.

### **The Future!**

For participants, the Internet was an essential tool they believed they could not function without. For civic engagement, as the aforementioned discussion showed, this meant a tool for staying informed. As Cody, a non-Internet user, said: "Without it, your eyes would be wide shut." Across groups, participants viewed the Internet as a new way of life and a tool all people must have to function in the future. Some non-Internet users told me of their regret of not being online and expressed concern of being left behind. Only a few participants could not articulate how the Internet would benefit them; however, they spoke positively of the technology for their children and grandchildren.

Statements like "Computers are the way of the world" and "I want you to write this down: It's good for children" showed participants' view of the Internet as a necessary tool and a new way of life for them and the next generation. Passages that best illustrate this view of the Internet follow:

Candice: It's a necessity. It's become a necessity almost that you have to have some knowledge.

Joelle: It's getting to be just like it was with the television, which I came up with. There was one in every home. And now it's getting that way with the Internet.

Michelle: Now it's getting where we have a computer in every home – more than in every home. Now they put them in cars that do things. You can get the Internet on your cell phone!

Rayelle: But you start with those kids there. You take the time and teach them. This is the future.

Annette: Everything is going to computer. The hospital can call anywhere it needs to call. Everything is going to that as far as your medical records. I don't have to wait for them in the mail.

Deidra: And everybody, every household, every business, every everything has a computer. There's computers everywhere.

Michelle: It's going to force businesses, the communities, more government granted programs to make more computers available to every walk of life. It's going to be the #1 source of communication.

The Internet experienced an amazing rate of diffusion. Some believe the Internet's rate of adoption was “the fastest in the history of humankind” (Rogers, 2003). As already discussed, highly influential organizations have played a central role in the process. Most participants clearly felt the rapid diffusion of the Internet into their community and ultimately into their lives.

Embedded in participants' discussion of the Internet was a clear sense of being forced online. In most conversations, high and low Internet access users no longer viewed Internet use a choice, but as a necessity. They cited many examples of how they or others in the community were compelled to learn and use the Internet to complete ordinary and essential tasks. Their discussions of the consequences of not being online, especially for older adults and the next generation, reinforced this common view.

Phrases like “I think it forces you to,” “You kind of forced to” “It's a necessity,” and “Computers are the way of the world” clearly showed participants believed the

Internet was an inevitable technology they (or others) would have to learn to use. In

describing this feeling of being forced online, participants said:

Jeannie: Most places that you go and apply for a job now you have to do it on a computer. Some places won't even let you apply if you can't do it online. Some of the places I went don't even have applications any more.

Paulina: When they go to college what they going to do if they don't have a computer? You almost got to buy your child a computer now when they go off to school.

Candice: Again relating it back to school – if you take a handwritten paper to your professor, they are going to laugh at you. What is this? It is an expectation.

Ronelle: My daughter in the 5<sup>th</sup> grade said, Mom, I got a report due in two days. And I said, just write it out. She said, my teacher won't accept that. It has to be done on the Internet. Well you tell your teacher to buy you an Internet!

Andre: Nine times out of 10 they don't call you, they e-mail you, thinking your e-mail is up and running. You missed out on a job because they e-mail you.

Charlotte: Space age, electronic age – you can't do anything without it. Like you can't do anything without a credit card – you can't do anything without the Internet.

Rayelle: And have you noticed that the only medium to pay your bill for free now is the computer? So, you're being forced online – you're being forced to do that or you're going to pay for a money order or pay to go to one of the places and pay your bill in person.

Overall, attitudes toward the Internet as a positive life tool were held across groups. Internet access was not a variable. Participants' feeling of being forced online is a consequence of the incredibly rapid diffusion of the Internet into society, and more specifically into their community. Participants' views of the Internet, however, were not entirely encouraging. They also relayed some notable concerns, which are discussed in the following section.

## Concerns

Participants were asked: “If there is something you could change about the Internet what would you change?” Given the choice to discuss this, they revealed several common concerns. Participants discussed concerns of social isolation, privacy related to online identity theft, child predators, and inappropriate content. Because many of these concerns are not relevant to my inquiry, I only briefly summarize them below. Of significance, though, is how closely these concerns relate to similar studies, especially Jackson et al. (2004) study of home Internet use in low-access communities. Because of the strong similarities I adapted some of Jackson et al.’s (2004) terms into my coding. In the spirit of exploratory research, I felt it was important to share a brief overview of these findings even though not all apply directly to my inquiry on civic engagement.

- Social isolation: Participants believed the Internet acts as a social isolator affecting their communication with others. This feeling was most pronounced among low access users. Mainly, they were concerned the Internet distracted friends and family from each other and group interaction – perhaps illustrating their preference for close, personal communication. Phrases like “that’s all he does,” “I try talking to him,” “we don’t have person to person contact anymore,” and “I don’t want anything taking away from my family,” illustrate this concern. As Annette put it:

That’s all he do from the time he wake up at 8 in the morning until he go to bed at 10 o’clock. It just gets on my nerves. You know, I go to visit him and I can’t even visit him because he’s doing this and that when you are trying to talk to him at the same time and it’s annoying. But he’s obsessed with his computer and that phone.

- Privacy and personal identify theft: A fear of identify theft was largely linked to levels of Internet use although some low-access Internet users also referenced it.

References to “hackers” and “no privacy” and phrases like “they can find out whatever they want” and “once you get in that system they can get anything they want” reflect this concern. Recent publicity of a stolen laptop from the state’s workers’ compensation bureau may have elevated this fear somewhat, as several participants mentioned it during interviews. Despite this single incident, though, participants implied a larger mistrust with online financial activities. As Paulina, a high Internet access user, believed:

There is no privacy – anyone can – what they say? The hackers? – Anyone can take that information and do whatever. Now, I do do some online banking and I just be praying, lord please don’t let them – please don’t.

- Inappropriate content: Participants also expressed concern of children’s access to inappropriate content and online predators. Again, this concern was noted across groups. This was a special concern of the few senior participants who had no online experience, but was also expressed among high Internet users. For some, it was easy access to nudity and adult Internet sites. Two participants described their recent experiences:

Catrina: My grandson wanted to look up WWF and so I’m there typing it in and as we go down I see Playboy pictures and say, oh no. We were scrolling down and all the sudden these pictures and stuff!

Charlotte: About two week ago [my niece] was putting in Disney – Disney! And she put in Disney but instead she put a P or something after Disney. Auntie! What did you do sweet pea? I don’t know just change it! And I even have a parental control on it, but it didn’t stop it from going.

- Predators: Easy access to inappropriate content was not their only concern. Other concerns include online predators and the risk this new technology posed to their children. For some, television influenced this view; others simply believed the Internet was a place that perpetuated disparaging and illegal behavior:

Henrietta: Well, I’ve heard about the Internet on television about the young people and things like that. How they, you know, call young people and try and get them out. Yeah – yeah, it concerns me – it really do.



Glenda: I just hate that they have so much negative feedback on the Internet. A lot of them are using it for the wrong reason. You know, I hate that. You know, this online MySpace has opened their site for derogatory things.

In general, participants' views of the Internet were positive despite some notable concerns. I also believe some of these views support their ideas of using the Internet for civic engagement. In the next section, I discuss barriers that participants believe keep them and others in their community offline.

### **Barriers**

Despite positive perceptions of attributes of an innovation, other factors can slow rates of adoption (Rogers, 2003). Revealing barriers to Internet use would help me understand what might prevent participants from using the Internet as a civic engagement tool despite their positive views of using it as a valuable information source. Therefore, participants were asked to describe what kept them from using the Internet and what they would change to make use easier. From this, I determined barriers to access, even beyond simple connectivity, which might keep certain groups of people offline.

In a cross-national study, van Dijk (2004) identified persistent obstacles to Internet access, which strengthened my understanding of barriers to Internet use among participants. They include: 1) *material considerations* (access to hardware and ability to connect to it); 2) *psychological* (lack of experience, fear, lack of interest and avoidance); and 3) *digital skills* (ability to operate equipment and search, select and process information (p. xvii). His findings are generally consistent with other literature on this topic, which call for multi-dimensional views of Internet access particularly in underserved communities (Valadez & Duran, 2007). In support of these findings, my participants too disclosed a range of concerns, as well as obstacles they and others in the

community have encountered. They also revealed other logical barriers, which are not related to individual deficiencies, but external factors preventing use. A common criticism in studying adoption of new technologies is we failed to consider the individual's problems within the larger social context (Rogers, 2003). Broad, open-ended questions allowed me to reveal these additional barriers to Internet access in the community.

Five principal themes emerged from participants' descriptions of barriers to Internet use and are included in Table 8.

Table 8 Principal barriers to Internet access

Theme	Description
Costs	Belief that they or others cannot afford equipment, service; concerned technology will fail; must prioritize spending on more critical items; limited income.
Uncertainty	Navigation problems, lacks skills, knowledge, confidence, feeling of being lost.
Personal time	A lack of personal time to devote to Internet; Internet use competes with more pressing responsibilities.
Community barriers	External barriers that keep people offline; lack of knowledge about public access; limited community resources.
Detours to use	Actions taken to get around obstacles; reliance on friends and family.

Costs, uncertainty, a lack of personal time, and external community factors were among factors participants cited as principal barriers to Internet use. They described these barriers as both personal obstacles and obstacles they believed confronted the larger community. High Internet users spoke mainly of barriers to other people and the larger

community. Low Internet access users spoke mainly of themselves. This group, however, voluntarily described detours they would take to circumvent these barriers, especially for locating information important to them. Group differences are noted, and when applicable, I discuss how my findings relate to research on the topic.

### **Costs**

Cost of an innovation can have a negative effect on adoption rates (Rogers, 2003). For Internet adoption, cost has been attributed to lower rates of adoption in disadvantaged communities (Norris, 2001; Schon, Sanyal & Mitchell, in Bucy & Newhagen, 2004, p. 8). Across groups, participants believed cost was a principal barrier to accessing the Internet for themselves or others in the community. In fact, for many, the ability to afford the equipment and service was simply beyond their means. For others, they owned the equipment but could not afford the service to operate and maintain it. In several cases, cost was the only factor keeping them offline.

Cost as a barrier to Internet access was not unexpected. Economic concerns permeated the interviews far beyond participants' discussions of the Internet. References to "tough economic times," a "need to prioritize spending," "widespread unemployment," and their lengthy discussion of joblessness in the community made financial matters a dominant theme across groups throughout my study. In the city of Dayton, 23 percent of individuals fall below poverty level compared to 12.4 percent nationwide. Median household income is \$27,423 compared to \$41,994 nationally (U.S. Census Bureau, Demographic Profiles, Dayton, Ohio, 2000). During participant recruitment I found many phone services recently disconnected. In one instance, a participant disguised her voice because she was concerned I was a bill collector. Joelle characterizes how other people

she knows might describe these circumstances and emphasized the decisions some people must make:

So, give up my cell phone? You know, give up this, give up that. You know, I'm barely keeping my lights on. So, since I'm barely keeping my lights on, the only thing I can really do is have a cell phone rather than a land line phone. So, how am I going to put Internet access in my house for my child?

As she illustrates, for some participants, affording the extras such as computer hardware and connection services is just not possible for many living in her community.

A person's socio-economic status is a strong predictor of Internet adoption and use. As expected, my data show a direct link between participants' income and Internet use and is consistent with research on this topic, which has shown a persistent and direct correlation between income and Internet use (Fox, 2005). Regular Internet users described how cost affected others in the community. At times, they described family and friends who could not afford Internet access. Other times, they spoke in broad terms. Participants from the low Internet access group identified some of the same barriers, which helped confirm these accounts.

The following passages reflect how regular Internet users viewed cost as a barrier to Internet access for others in their community:

Kendra: I just think that if you don't have money it's not going to increase your Internet use. Yeah, in a perfect world, we all rich, we all got computers, and all have five bedroom mansions.

Candice: Money. They can't afford it. Even if they can afford it they can't afford to get high-speed Internet service.

Catrina: Here it goes again – especially when you talk about my mother – it's the same sort of thing – the money – to be able to afford it – a computer.

Joelle: But she doesn't have a computer. She has five daughters. She runs them all to the library. And her priorities are in the right place. She's done everything she can, but it's just getting more and more difficult.

Infrequent and non-Internet users spoke mainly of their own personal situation and how the cost required for Internet access was beyond their means. At times, they spoke of it in the context of others. By putting their comments in the context of their discussion and comparing personal observations and other data, I was able to conclude they were referencing themselves. The following passage illustrates how a participant from the low Internet access group described cost as a barrier for her and others in her community:

Annette: No jobs and no money – you can't afford to put it somewhere else because you need it for bills – like there may be one parent in the household and you got to pay rent, the water, get back and forth transportation To me, that's a necessity because that's where everyone is going, you know. Like me, I don't even have cable. I can't afford it – you know what I'm saying? And it's not that we aren't interested in the Internet or getting on computers. It's just that nobody has that extra money.

Other participants view of cost as a barrier extended beyond the ability to afford the equipment. In some cases, participants owned computers but could not afford the service or repairs as a result of viruses. For example, Lisa owned two computers, which she presently had stored in her closet. Her main concern was this:

I'm scared of clicking on the wrong thing and getting that virus that pops up. I've been fortunate so far that I haven't gotten a virus. That's what makes it hard and makes me scared of going on the computer. I can't click on something and automatically get a virus and my computer start acting up and I got to take it to the store. I can't do that – I'll be without a computer!

Rayelle provided a similar account:

A lot of time when we think we gonna tear something up we close it out – like what is this going to do – like the trial and error – if I tear it up then I pay for it.

Several participants were straightforward about their financial situation and told me cost was the only reason they were not online. By comparing their knowledge and

experience with the Internet through work and school their claims seem reasonable. In the following passages, Wanda and Cody explain why they are not currently online:

Wanda: I just don't have the access because I didn't have cable and I didn't have a home phone, so I didn't have access. It's not that I have a fear or don't know how to navigate it – that's just my reason there – financial.

Cody: I really haven't had a chance to get the Internet. I want to get a laptop and get my Internet hookup, but right now I'm not financially sound to be able to do it. I just now got this phone.

Beyond cost, participants discussed a variety of other barriers to Internet access, including problems of uncertainty or a feeling of being lost. What these barriers suggest is the digital divide may persist for some despite having physical access to the Internet. The data also suggest barriers to civic engagement may not only affect low Internet access participants' ability to use the technology but high access Internet users as well. These barriers are discussed in the following sections.

### **Uncertainty**

According to Rogers (2003), the complexity of the innovation can negatively influence adoption rates. He defines complexity as “the degree to which an innovation is perceived as relatively difficult to understand and use” (Rogers, p. 257). Participants were asked to describe what keeps them from using the Internet. For some, as illustrated above, it was cost. For others, it was navigating Web sites, insufficient skills and knowledge, and a lack of confidence. Not only could these barriers influence some participants' decision to adopt the Internet, but may also prevent them from taking advantage of the many applications available. For coding purposes, I categorized participants' accounts of these barriers as “uncertainty.”

Many infrequent and non-Internet users talked about how they did not have basic skills or knowledge required for Internet use. Many in this group had only limited online experience and doubted their ability to fully use the technology beyond simple tasks.

Participants' uncertainty with Internet use is illustrated through the following passages:

Tachelle: It would make it a lot easier if you could talk to it, instead of typing. It takes me forever to sit down and type – so, if it was like a voice command where you could tell it specifically what you want.

Trinika: I don't know 'cause I don't really go on the Internet 'cause I don't know what I'm doing. A lot of times I just don't know what I'm doing.

Annette: I have no clue how to use it, how it work. It's just like with me – it seems French or Spanish. When it says go here and when you have to go to those little blocks and click on something – I have no clue what those pictures are.

Glenda: I just know the basics of the computer. I can do data entry, but I don't do that well on the Internet.

Deidra: But if it's anything you had to do on the Internet, I would be in trouble.

Lisa: And I could be on the computer and it would just lock up, and it would kick me off. I would have to go back and restart the computer again. That turned me off from using the computer.

Across groups, participants told me they had trouble navigating Web sites, which may influence their use of the Internet once they have adopted it. Some became disoriented and expressed difficulty finding their way through what they felt was a maze of information. Like Sherrie said, "I think with a lot of Web sites that I want to go into – if they wouldn't make it so hard, because sometimes you have to go through so much to get something that's really easy once you get into it." These findings suggest possible implications for participants who wish to navigate the growing number of government Web sites, which are complex in nature and require certain level of skills and knowledge (Norris, 2001). Both regular and infrequent Internet users discussed similar problems and

gave accounts of recent experiences online. Participants' descriptions of problems navigating Web sites follow:

Joelle: Like if you go to a site and some of the links in there – and if you get past the second or third link – I'm really, really lost, and I can't get back to some of the places I've been before.

Charlotte: I think with a lot of Web sites that I want to go into – if they wouldn't make it so hard, because sometimes you have to go through so much to get something that's really easy.

Rayelle: I don't know how to navigate to where I want to go. For example, I had a project for school and I was looking up different types of therapy. And I didn't know how to narrow it down or what exactly on that page to pinpoint to get to where I needed to be.

Christina: And then it gives me all these hits. So, when you start clicking on them it's not actually the ones that you want. And I usually have to go through about 25 of them before I get to the one that would give me the information I want. So, if you don't know what you are looking for, it's kind of hard to get to it.

For regular Internet users, difficulty navigating Web sites did not seem to discourage them from using the Internet or accessing content. This is based on elaborate accounts of how they used the Internet for school and work. Even some less frequent Internet users did not seem to relate levels of frustration that would necessarily cause them to abandon the Internet. Problems navigating, however, are worth noting given the complexity of most government Web sites and participants' claims of using the Internet foremost as a research tool. In this case, the less experienced participants may have trouble accessing content and therefore may limit their ability to use the Internet fully as a civic engagement tool.

So far, I have described individual-based barriers. Next, I discuss external factors, which also act as barriers to Internet use. In the following section, participants describe a



lack of personal time and important community barriers that prevent their full use of the Internet.

### **Personal Time**

Reasons for not adopting new technologies tend to focus on individual deficiencies rather than influences people cannot control, and much of this research has failed to consider logical reasons for why people do not adopt (Rogers, 2003). For high Internet access participants that generally had home Internet access, a lack of personal time was a frequently cited barrier. The majority of participants in this group worked at least one full time job and had at least one child living at home. Some participants from the low Internet access group also noted time as a factor. This was especially true for participants who did not have home Internet access and had to travel to libraries, schools or other public locations.

Rayelle: Mine is time – you know just time. I mean I have a blind mother and I take care of my mother – go to work. And when I do have time it’s after midnight when I’m off work. It’s either go on the computer or go to bed.

Trina: When I use it, it’s for a specific thing and then I’m off. It’s a lot of time that I could be doing something else. I would have to be really bored to be on.

Deidra: I have more time issues than anything else. By the time I sit down at the end of the day I’m so tired – just kind of brain dead. I work full time. I’m in school full time. And I take care of my nephew full time. Oh yeah, and I’m a grandma full time.

Mike: Having a computer at home would be better. ’Cause I can’t go to the library ’cause my wife goes to the job center in the morning, I mean I don’t have a babysitter.

In all, participants seem to restrict Internet use to only priority activities. Few spoke of recreational Internet use, such as online games. Most, however, characterized their personal Internet use as “getting on,” “getting done what I need to get done,” and

“getting right off.” A number of participants had multiple Internet users living in the home, including children. Children’s activities also seem to center around education and school assignments. Information regarding number of computers per household was not collected, but demand on Internet use in multi-family households may contribute to a lack of personal time for Internet use.

### **Community Barriers**

According to Rogers (2003), the ability to try an innovation and observe others’ use of it can have a positive effect on adoption rates. He defines *trialability* as “the degree to which an innovation may be experimented with on a limited basis” (p. 258), and *observability* as “the degree to which an innovation is visible to others” (p. 258). Limited knowledge and use of public access centers, as well as fewer peers online, may have negatively affected some participants’ ability to observe and try out the Internet, and ultimately may have influenced their decision not to adopt.

Participants talked about community barriers that kept them and others from using the Internet fully. Mainly, they described how public access centers had limited hours and were not well advertised. They also related back to the problems of limited basic services and a lack of funding for public access centers, a lack of positive parental guidance, and the broad problems of crime and violence. Participants’ view of community barriers that inhibited their and others’ Internet use is illustrated in the following passages:

Rayelle: An hour at a time at the library – you got an hour.

Joelle: We look at what happened to all the Boys & Girls club. They used to have all the computers and everything over there and it shut down. The community needs to make these things just a little more accessible.

Candice: The kids are lost because they can only use it for 30 minutes at a time. They were all at the library half of the night trying to get 15 minutes in. So, it’s a

lack of money and resources in the community, and a lot of the community centers don't have resources.

Deidra: And then the people training aren't literate themselves. So what are they teaching them?

John: One of the biggest problems to people getting on the Internet is they don't have access to them or don't know how to access them.

Kendra: If I had my way, I would put right over there an Internet house. But then being truthful? Being real? People would tear it up. Security – it would be broken into three times this week!

Only a few participants did not describe barriers to Internet access. This small group were non-Internet users, age 70 and above. After some probing, their response was basic: They did not view the Internet as a tool that would benefit them in any meaningful way. Henrietta typifies this groups' view when she said: "I just don't have any need for it that I know of. I don't have no need for it. I don't have no purpose to use it." Clearly they did not perceive any relative advantage for using the technology or its compatibility with their present lifestyle. In this case, perceptions did count.

Overall, participants described barriers that prevent them from accessing the Internet and, in some cases, the content that it contains. Some of these barriers could impede efforts for online civic engagement. Not all barriers, however, were due to individual deficiencies but included factors outside participants' control. Collectively, digital skills, material access, and outside factors appear to be contributing to usage gaps among some participants.

Unexpectedly, though, participants described ways around these barriers when it came to matters important to them (e.g., employment, legal matters, health). To me, this reinforced their view of the Internet as a necessary life tool and a future force they believe they cannot live without. In effect, when they needed important information they

were willing to seek help, in many cases, from friends, relatives, and even their own children. I describe these detours to Internet use in the following section.

### **Detours to Use**

Social support networks are important to the diffusion of new technologies (Rogers, 2003). According to Hargittai (2003):

For online skills in particular, this implies that people who are able to draw on their social contacts for information on how to use the medium will learn more quickly and be exposed to a broader repertoire of online services than those who have few people to whom they can turn to for advice with their Web use. (p. 12)

My findings show non-Internet users turned to family and friends to assist them with Internet use. For matters important to them, they were willing to invest the time necessary for seeking information online despite barriers confronting them. In all cases, they claimed their attempts were successful.

Eloise: I would turn to my sister – I always turn to her for stuff like that – my niece, my daughter. I don't bother my one granddaughter because she's too busy.

John: I used to go through my daughter – she has Internet through school. Usually I go to family. I would call a family member and ask them to look something up for me.

Randall: But if I need to learn anything about the Internet I will go to my son. He has the ability and knowledge to show me the way around blockages.

Raymond: I didn't use the Internet but it didn't matter. They [community center leaders] were able to accomplish things faster, which benefited us all.

Rayelle: But I now can get on, you know, just by calling my daughter and saying "Hey, how do I find this out?"

Glenda: I would look for my friend I work with and she would walk me through it. There's always somebody.

Trinika: My brother, he's like super excellent on the Internet. Many of times he's helped me.

Jeannie: Me personally? I have a support system! I just have a wealth of people who help me when I get stuck.

Overall, participants viewed cost as a principal barrier to Internet use in the community, and sometimes the only barrier for participants in the low Internet access group. For regular Internet users, many believed a lack of personal time kept them from going online. Both groups described external barriers, such as restrictions on public access centers and inadequate funding as barriers to Internet use for themselves and others in their community. Despite these barriers, participants found detours around them when it came to matters they found personally relevant.

### **Summary of Findings**

The study's major findings are summarized as follows:

- The problems of crime, drugs and violence as a result of persistent unemployment far outweighed participants concerns of environmental risks in their community.
- Overall, participants were confident in their ability to solve problems and to bridge with local organizations, but feared retaliation, community apathy, and misplaced priorities would keep them from achieving their goals.
- Participants preferred face-to-face communication for mobilizing support and media for staying informed. High access users frequently cited the Internet as an information-seeking tool. Low access users relied mainly on television.
- How participants viewed the Internet was consistent with their claims of what media they would use to mobilize support and stay informed of community problems. Participants viewed (and in some cases used) the Internet in positive and productive ways that helped them with school, employment, and

personal matters. Noticeably absent from the findings was participants' view (or use) of the Internet as a communication technology.

- The primary barriers to Internet access in the community were costs, personal time, insufficient public access, and navigation problems. For important matters, though, participants found ways around them by reaching out to social support networks, including friends, family and co-workers.

My final summary and conclusions are presented in the next chapter.

## SUMMARY AND CONCLUSIONS

### Overview

This broad qualitative study was designed to explore whether historically marginalized communities view and use the Internet as a tool for environmental advocacy. Participants reside in Dayton, Ohio, which has a high minority population and a strong industrial past. The community is home to a number of notable environmental legacies derived from over 100 years of manufacturing, a majority that has since closed down or moved elsewhere. I used in-depth interviews and observations from a cross-section of individuals to reveal explicit cultural accounts of the relative importance of technology in their lives, as well as in their community. Altogether, my analysis calls for a reconsideration of current environmental justice policies to ensure all inner city residents have equal opportunity for a safe and clean environment and an opportunity to participate in matters that affect them. My study also emphasizes the need for using qualitative approaches for studying the use of new technology in historically marginalized communities.

My study centered on what policy makers calls the digital divide, or the difference between those with access to the Internet and those without. Mostly poorer and working class neighborhoods are affected by these persistent technological inequalities; the same communities that face a plurality of other social injustices. My concern was that as online civic engagement grows in popularity and government Web sites burgeon, those most at risk will be further excluded from the information and resources required for effective social advocacy. Disproportionate amounts of environmental pollution plaguing poor and working class urban neighborhoods is a case in point.

When I began my research I was struck by the limited number of studies that included participants from digitally divided communities. Most of the research accumulated over recent years has focused on active Internet users from sufficiently wired communities. Consequently, our current understanding of Internet use and the digital divide has mainly evolved from an elite viewpoint. My study addresses these deficiencies and offers a much-needed perspective from those most at risk. As my study progressed, I was less interested in individual effects of digital inequalities as I was in broader community effects. Mainly I wanted to know how less wired communities collectively used the Internet and whether they viewed it as a tool for environmental advocacy. When pieced together the data reveal an important story of Internet use and environmental advocacy in at-risk communities – a different narrative than many of our present technological studies offer.

A few points are worth noting before discussing the study's major findings. First, participants were given broad freedom to share their experiences and tell their story. I did not, in any way, want to presume aspects of their normal technological or civic engagement behaviors. To the extent possible, the final data represent their ideas and their viewpoints based on their own personal experiences. Second, these viewpoints were derived from a cross-section of participants, which have a range of resources but share similar life experiences. This framework provided a realistic lens into what collective advocacy in urban cities might entail, how participants might function communally, and what similar viewpoints and experiences they share that might explain their preferences.

In the following section I amass and discuss the major findings of my study. I also discuss key implications associated with these findings and indicate where I believe more



research is needed. Integrated into my discussion is an explanation of how these findings inform our current theoretical understanding of the diffusion of new technologies and how this phenomenon affects their collective use. I end with some concluding comments about what my findings mean for environmental policy makers and the future of more effective and inclusive environmental advocacy.

### **Major Findings and Implications**

Motivation and resources are persistent factors associated with effective use of the Internet (Bucy & Newhagen, 2004; Norris, 2001). With the advancement of new cost-efficient technologies, technological resources may become a less significant factor in determining access. “Research must therefore begin to address questions concerning motivation to use new information and communication technologies as well as the user’s ability to decipher meaning once a connection to the networked world has been established” (Bucy & Newhagen, 2004, p. xiv). Although motivation is often associated with an interest in the technology itself, logically it also pertains to an interest in topics that require effective use of the technology. Motivation (or lack thereof) was an important hallmark of my study.

Based on my findings, I conclude that despite participants’ generally positive view and use of the Internet, the greater problems related to life in the inner city far outrank the importance of Internet use and environmental advocacy. In the inner city and surrounding neighborhoods, environmental issues take a back seat to the more pressing problems of crime, drugs, and violence. As a consequence, residents are not likely to engage these technologies for such purposes absent a major disaster or high profile environmental event that motivates them to do so. Only after prompted did a few

experienced Internet users discuss searching for information online. My research broadens the discussion of the digital divide by showing that unless sufficiently motivated to act emerging technologies will not necessarily give historically marginalized communities a greater voice in environmental matters that affect them.

After poring through hundreds of pages of text and listening to hours of interviews to reach this conclusion this one discussion summarizes it best. After being asked to discuss the most pressing problem in her community, Deidra, like so many other participants, began talking about crime, parental absence, and drugs. As a public school teacher, Deidra discussed at length specific problems at her school, the lack of parental responsibility, and wide-spread drug use in her neighborhood. When she began telling stories of her young teen-aged students “on crack” and how one had recently “downed a bottle of pills” during her class, Joelle, another participant, threw up her arms, shook her head, and said: “Internet Who?” This simple yet illuminating exchange between two participants put the overwhelming nature of problems in the community into a clear perspective and informed me of why participants’ discussion of these matters dominated the majority of transcripts. Clearly, participants believed online environmental advocacy was important, but not nearly as critical as the more immediate problems of joblessness, crime and violence – conditions that had become a normal part of many participants’ life. As my data show, access to the Internet is not a magic bullet that will close current gaps and bring historically marginalized communities closer to democracy. Future research must consider the more logical and visible problems unique to urban centers and influence people’s motivation toward addressing them.

“Even if we assume that Internet penetration rates will widen ... there is a growing awareness that a substantial democratic divide may still exist between those who do and do not use ... the Internet for civic engagement” (Norris, 2001, p. 12). Although I found some notable barriers, participants held largely positive views about the Internet and how it could help them with serious matters. In fact, those who were offline discussed ways to circumvent these barriers for seeking information important to them. But their motivation to advocate environmental matters as policy makers define them clearly was not important. These matters were trumped by more pressing and immediate economical and safety issues. While my findings are positive in terms of a shrinking digital divide, they raise serious questions about a persistent or possible widening of a democratic divide, at least in terms of online environmental advocacy.

Figure 3 breaks down my study’s major findings in a way that illustrates the factors affecting participants’ use of the Internet for environmental advocacy. The model was adapted from Norris’s (2001) Internet Engagement Model (see Figure 4).

While Norris’s model is multi-level and considers Internet access at a national and political level, she also defines predictors of individual access. According to Norris (2001), two principal factors determine how likely an individual is to access the Internet. The two factors include: *motivation* (in the case of my study interest in environmental problems and ability to solve them) and *resources* (media used and ability to access them).

The following discussion relates back to major headings found in Figure 3 and discusses implications of each major finding in detail.

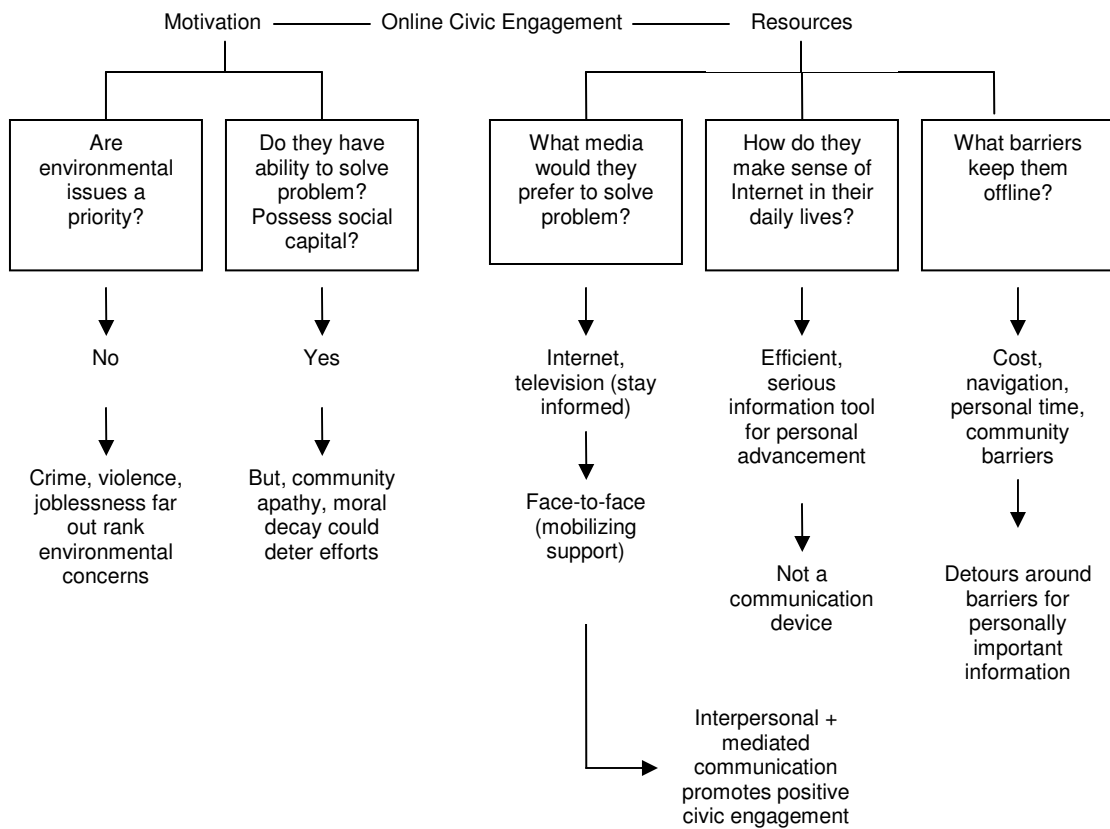


Figure 3 Precursors to online environmental advocacy

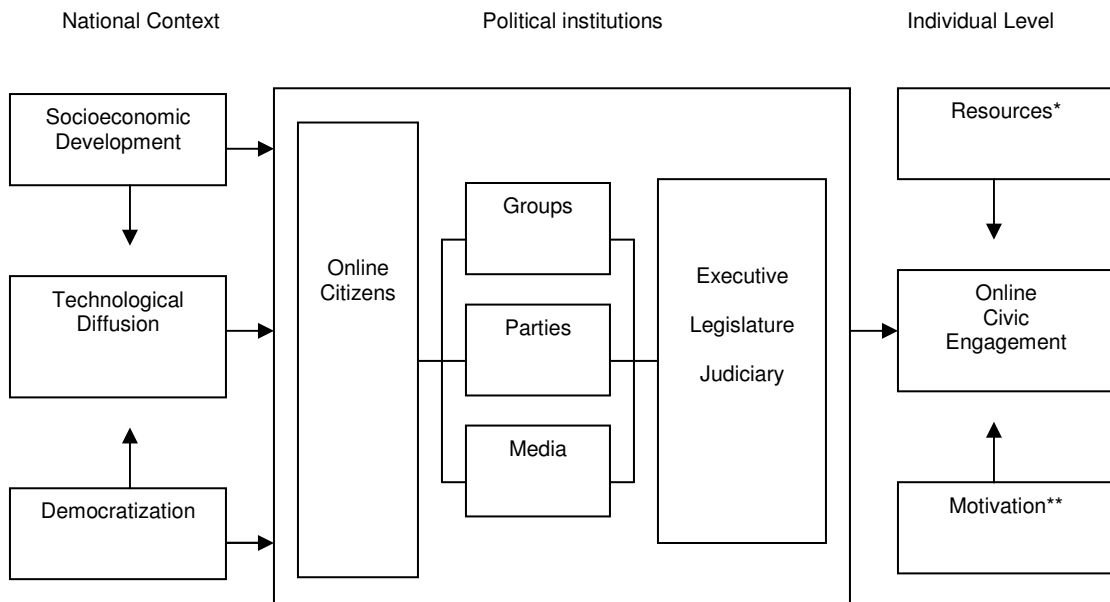


Figure 4 Norris's (2001) Internet engagement model

Note: Resources are defined as time, money, and skills, and *motivation* as interest, confidence, and efficacy (Norris, 2001, p. 15); Motivation is defined as interest, confidence and efficacy (Norris, 2001, p. 15).

### **Environment What?**

“Despite efforts to broaden the movement, environmentalism continues to have such a low profile in the black community that it constitutes barely a blip on the radar screen of black concerns” (Stoll, 2006, p. 153). As shown in Figure 3 participants believed the problems of crime, violence and drugs far outranked their concerns for the environment. They gave frequent and colorful accounts of conditions in their community, and sometimes immediate neighborhoods. Whether they were directly affected, or spoke of others they knew, their stories consistently demonstrated the enormity and pervasiveness of this crisis. These problems were captured in four principal themes: a lack of jobs, drug use and trafficking, limited basic public services, and alienation and absence of hope. Similarly, participants also described what they viewed as root causes of these conditions: too few positive adult role models, a lack of community support, inferior school systems, and overall moral decay – circumstances well established through other cultural studies (Anderson, 1999; Wilson, 1996). Their discussion of this topic dominated most all discussions. Not a single participant discussed environmental issues as a priority over these more pressing problems.

Participants’ view of these issues as a principal concern was not surprising and is certainly warranted. It is the crowding out of other concerns that is worth noting and applicable to this inquiry. Crime and violence are not the only consequences of economic decline in concentrated areas within our nation’s cities. Environmental pollution and other post-industrial legacies also define today’s problems. Even after being prompted

participants gave environmental matters only minimal attention, despite being knowledgeable and, in some cases, living near notable problems. Overall, participants' discussion of environmental matters represented only a small portion of content related to the more pressing problems of crime, violence, and drugs. This is despite more than half of all participants worked, volunteered, or had children who attended the community center – a center that promotes youth environmental education and stewardship and is operated in conjunction with an adjacent metro park – and almost half of the participants were identified as social advocates. Even so, their motivation toward environmental protection was surpassed by more urgent and far-reaching concerns. As Sherrie said, “The environment is secondary. But in a way it should be first.”

Obviously, the problems of crime, violence, and drugs run deep, and it makes sense these issues would out rank environmental ones. But again, the implications of this in terms of online environmental justice cannot be ignored. As long as these more pressing problems consume the time, energy and attention of our minority urban communities they will be less motivated to collectively advocate an environmental agenda. As new technology empowers already sufficiently motivated groups (e.g., mainstream environmental groups), there is a greater chance their agenda will prevail. This agenda, which mainly reflects white, middle class concerns, has unfortunately failed to meet most minority communities' needs (Grossman in Melosi, 2006, p. 124; Smith, 2007). As a result, historically marginalized communities could be left even further behind as those with greater interest and resources move their cause forward.

A fair amount of research focuses on personal traits that limit Internet access. My findings suggest what other social scientists have: the greater barrier rests less with the

individual and more with the individual's social setting. For participants, they must sort through a multitude of other problems like safe schools, drug-free neighborhoods, clean grocery stores, and lighted streets before addressing clean air and water. As long as these issues remain in the forefront there is little hope persistent environmental problems will get their attention and motivate online activism. As a whole, my findings remind us obvious factors must be accounted for when researching the digital divide and our methodologies must remain open to capturing these circumstances.

### **Let's Fight! But Where's My Support?**

Effective environmental advocacy depends on strong community bonds and the confidence actions taken will be productive. The way people connect with others varies and depends on factors within each community. Perhaps nowhere else are social connections more threatened than in our inner cities where high levels of joblessness and low levels of social organization "go hand in hand" (Wilson, 1996, p. 21).

Yet my findings tell a slightly different story and is consistent with studies that have debunked mainstream views and stereotypes of the urban poor. Of note is Mitchell Duneier's profile of black working class men based on his four years of research in a south Chicago neighborhood. Through his work he showed distinct values and a strong sense of caring among these working class individuals. Consistent with Duneier and others my data also show that citizenry and responsibility to the community was alive and well and is by no means exclusive to high socio-economic communities.

Participants' accounts of how they would solve problems in their community suggested high levels of confidence as shown in Figure 3. Many gave elaborate descriptions of how they would address local issues like drug trafficking, noise and trash

in their neighborhoods and community. They also described attempts at mobilizing support and gave positive accounts of working with authorities and local leaders. They volunteered at the community center and were willing to give back, as many did by participating in this study. In all, they cited a number of important social networks they would turn to, and a few served on local neighborhood committees. Altogether, I conclude participants' accounts signified reasonable levels of social capital by working together that could transform into effective environmental advocacy at the local level.

Despite these positive levels of social capital though, many participants believed their efforts would stop short of meeting their goal. Mainly, they spoke of a form of negative social capital that would encumber their constructive efforts. Fear of retaliation and community apathy were among their primary concerns. This comes as no surprise based on the scores of studies illuminating declining civic engagement as well as the predicament of lower socio-economic groups who want to collaborate but face counter productive forces (DeParle, 2004, Putnam, 1993; Shipler, 2004).

Diminishing levels of civic engagement have become the center of much debate. Concerns center on a loss of social capital leading to broken bonds and widespread declining interest in social and civic organizations (Putnam, 2000). The main focus, however, has been on the loss of social capital rather than the external factors contributing to that loss. In the case of my study, participants exhibited a strong will to fight and a sense of responsibility to their neighborhoods – all good indicators of positive social capital. They spoke highly of the local priority boards and of the community center as close, personal advocates. Their accounts illustrated personal motivation toward solving problems, a valuable aspect of civic engagement as Figure 3 shows.



Based on these findings alone one might predict a positive future for local community advocacy based on evidence of effective bridging and bonding in the community. Yet their initiatives appear to be countered by equally negative forces – circumstances that have largely been absent from the debate. The degree to which the negative social capital outweighs positive social capital cannot be measured by my data alone, but it should be examined. Reasons for declining social capital have largely focused on the individual pressures of time and money, mobility and sprawl, generational differences, and technology and mass media (Putnam, 2000). In my study, participants acknowledged family and work demands hindered their efforts, and a few mentioned technology as a deterrent to social interaction. Overall, though, they were mainly concerned that despite their good-faith efforts, they would be left to fight the battle alone. Recasting our attention toward external factors, which offset positive social capital, would offer new explanations for why civic participation is diminishing in the inner city and its effects on environmental advocacy.

As a final note, the majority of accounts focused on local problems and local networking. Local networking included strong ties with family and friends and more formal relationships with more distant and structured organizations. Both represent vital aspects in building strong social capital. In terms of addressing local problems, these findings are positive. But I question whether these close social bonds will be sufficient for addressing the large issues such as historic environmental injustices, persistent racial discrimination, and concentrated joblessness in our inner cities. According to Putnam (2000) “For our biggest collective problems we need precisely the sort of bridging social capital that is the toughest to create” (p. 363). Few participants mentioned networking

with larger outside organizations, even those that would be sensitive toward their plight and act in their best interest. A case study approach might be a more suitable method for uncovering how individuals develop and use these networks in the face of addressing larger community issues.

### **Internet: Important But Not End-All Solution**

Access to media and other resources is the crux of effective social advocacy. For more affluent communities, those resources have increasingly included the Internet. Naturally, there has been a growing concern for the fate of those communities on the low end of the divide. Underlying these views, however, seems to be a tacit assumption the Internet is a single solution to future democratic participation. In reality, however, civic engagement occurs on many levels and calls for different tactics depending on scale of the problem (Putnam, 2000). In my study, participants revealed a variety of tactics they would employ for staying informed of problems and mobilizing support in their community. For them, the Internet is not an end-all solution.

Participants preferred face-to-face communication for mobilizing support and mediated communication (e.g., technology) for staying informed. High Internet users mainly preferred the Internet for researching information and staying informed of problems; low Internet users relied mostly on television (e.g., local news). Interestingly, participants did not view the Internet as a resource for social networking for building strong community bonds and mobilizing support. Few discussed the Internet in terms of its communication capabilities. Instead they preferred a more grassroots-style approach to advocacy – an approach one participant remarked many in her community were “tied to.” Block parties, neighborhood watch groups, door-to-door petitioning, and informal get-

togethers dominated their discussion on how they would mobilize support, and they believed letting people “see your face” was critical for reaching their goals.

Disparate Internet use within the community partially justifies their preference for face-to-face communication for mobilizing community support. Most participants, at one time during the interviews, named family members, friends, and work colleagues who did not have Internet access. To fully appreciate the Internet as a communication technology there must be some level of reciprocation. For mobilizing community support, the Internet logically would be less dependable. A more effective method would then be as they claimed: going door-to-door and attending priority board meetings to generate support, and using media (including the Internet) for staying informed.

Despite the rapid increase in popularity of online communication and social networking (Wells, 2008), face-to-face communication combined with mediated communication has theoretical merit. The Communication Infrastructure Theory assumes strong storytelling networks results in higher levels of community participation. Communication Infrastructure Theory links effective civic engagement to both interpersonal networking and mediated forms of communication (Kim and Ball-Rokeach, 2006). Through this, citizens can effectively gain knowledge and share ideas and concerns. Supporting studies have linked effective participation to similar activities that participants described – participation in formal committees like local priority boards; involvement in informal settings like block parties; and use of local media (Lake & Huckfeldt, 1998; Ball-Rokeach et al., 2001; Kim, Ball-Rokeach, Cohen & Jung, 2002).

From participants’ viewpoints, their problems were local and could be addressed through local support. They maintained a strong trust in their local organizations to

address these matters and did not feel they needed help from larger outside groups. In terms of government, few mentioned seeking help beyond priority boards and city offices. Locally, their approach to solving problems made sense and has theoretical support, but what about larger problems such as equality in education, economic equality, and environmental and racial justice? These issues would likely require citizens to reach beyond their borders and engage higher levels of authority.

Notably, this is exactly what younger African Americans did in spreading news of the Jena Six, and as a result of their efforts, they demonstrated a new way to effectively mobilize via the Internet (Carter, 2007; Jones, 2004). This marked a turning point in how communities of color view and use the Internet. To get the word out about the Jena Six, students on college campuses nationwide turned to social networking, online videos, and email to spread the news about the six African American Louisiana youth. As a result, they showed the power of new technology in mobilizing support for social change. Unlike my study's participants, who clearly preferred face-to-face communication for organizing their community, the Jena Six student protesters effectively showed how traditional methods can be taken online.

This undoubtedly raises important new questions about the role of the Internet in achieving social justice. Could the case of the Jena Six begin to change African Americans' views of the Internet's impact in mobilizing support and fighting social injustices in their communities? Or, will this new form of protest be the next generation's movement? According to Lovelace (in Jones, 2008) and my data, older generation African Americans prefer using traditional sources for civic activism. Being up close and personal was a major draw and an ideal my participants held tightly to. Until more studies

examine the cross-generational Internet use in the context of large-scale problems, we may not know. By answering these and other relevant questions, however, we will be able to say with greater confidence whether the Internet is creating a larger democratic divide or empowering those who have traditionally been shut out of the conversation.

### **Perception is Reality**

Based on my findings, how participants made sense of the Internet in their every day lives was consistent with their view of what media they would use to mobilize community support and stay informed of problems. This was an important finding because it not only supported participants' claim for how they would use the Internet (or not) for civic engagement, but it also complements a growing amount of studies that focus on culturally distinct perceptions of Internet use. At a broad level, these findings are positive and reveal interesting data related to cultural influences on people's collective perceptions of technology. For online civic engagement, they reinforce already stated implications of a growing democratic divide.

Above all, participants viewed the Internet as an important and efficient information source that would help them locate important information for school, employment and personal matters. Noticeably absent from the findings was their view of the Internet as a communication or social networking tool they would use to interact with family, friends, or other people in the community.

Foremost, my findings suggest participants' initial Internet use likely shaped their present view and use of the technology. The manner in which a particular technology is diffused can have a considerable influence on people's decision to adopt and their subsequent use of it (Rogers, 2003). Furthermore, "there is a complex interplay of social,

economic, governmental, and cultural needs that help determine the successful adoption of a technology such as the Web” (Burnett & Marshall, 2003, p. 11). My findings show a strong link between participants’ experience with the Internet through education and work and their principal view of the Internet as an information tool used for research and achieving important life goals. The urban community college had a particularly strong influence on how participants viewed and used the Internet. For others, it was work. In many cases work and school was their first Internet experience, and in some cases it was their last.

In the end, participants were quite selective in their view and use of the Internet. They focused mainly on the Internet’s functional capabilities for seeking information that would help them meet important life goals. The findings complement a small yet growing number of studies of Internet use, which suggest certain minority groups (e.g., working class African Americans) view the Internet primarily as an important functional tool necessary for employment and school, rather than a social one (Jackson et al., 2004; Riggs et al., 2001). For reasons explained before this may make sense for a community where Internet use is low and where face-to-face communication is valued.

My findings also reflect earlier studies of Internet use, which show Internet use patterns shifting as users gain more experience and exposure to the technology. The data from these studies suggested Internet users over time got more serious and functional about how they spent their time online. Through increased exposure (mainly at work), Internet users began to learn the real value of the Internet, and as a result, they tended to spend less time on applications that once “dazzled” them and more time seeking serious information (Horrigan & Rainie, *Getting Serious Online*, 2002). A fair amount of

participants in my study were at this stage where they understood the relative advantage of the technology in their lives through broad exposure at work and school – and their discussions with me clearly indicated a serious focus toward information seeking in ways that benefited them both educationally and economically.

Interestingly, less experienced, non-Internet users held the same view. Non-Internet users, like the more experienced users, viewed the Internet as a primary information source – one they also believe is necessary for work (in this case, primarily finding work) and school (mainly their children's). Likely, non-Internet users developed their perceptions of the Internet through personal observations and experiences in their community. For example, several described how they felt being “forced” online and believed “you can't find a job unless you have access to the Internet.” Others described how their children or grandchildren's education depends on Internet use, and how having access to the technology in today's world is “an expectation.” The strong similarity found between non-Internet users and their more experienced colleagues supports the idea that culture and community has some influence on how participants make sense of the Internet in their daily lives. At least at some level, these observations and experiences shaped participants' opinions and personal orientations toward Internet as an important information source that can help them meet life goals.

What stands in contrast to both earlier and present day studies is the lack of participant's discussion of e-mail even for solving serious problems or addressing important matters. Again, this is likely reflective of the unique barriers facing low-end-of-the-divide communities where Internet access among family, friends and co-workers is unequal and not consistently available. To me, the absence of online communication

suggests the divide could expand rather than remain the same or detract as some have suggested as more socially and civic-minded groups, which do not necessarily represent this group's interest, increasingly use the Internet to build strong relationships within and outside their community. Time will give more insight into whether this group's view and use of the Internet complements or expands their connections to groups and resources that could help them.

In making sense of the Internet participants noted some concerns. These concerns, however, did not appear to act as roadblocks to Internet use. Different methodologies might reveal more on this topic. In most cases, participants discussed strategies for negotiating around them. While most of their concerns appear unrelated to online civic engagement their consistency with other cultural Internet studies make them worth noting. Their concerns included privacy (e.g., stolen identify), online child predators, and inappropriate content. Some participants also believed the Internet got in the way of more important interpersonal communication and thought it was less effective than traditional channels for communicating at home or work. With more data this might help explain their preference for face-to-face communication for mobilizing support and why so few discussed the Internet as a social networking device.

At a broad level, my findings show participants are using the Internet in positive and productive ways. The institutions which diffused these technologies appear to have had a strong influence on how users and non-users presently perceive and use the Internet. Many participants developed their skills through work and school and claim to currently seek out information online that is important for moving ahead both educationally and economically. Most importantly, these findings challenge other studies



that have linked minorities' initial online interest to entertainment and less beneficial applications, which is inaccurate of how low-income minority communities have embraced the Internet, according to Norris (2006). My findings clearly show participants were serious about their time online and capitalized on applications that met important life needs.

Less clear, however, is whether my participants' information seeking habits would put them on equal footing with individuals living in higher socio-economic communities. While my study was not a comparison of socio-economic communities, Knowledge Gap Hypothesis clearly shows that when the flow of information through mass media (e.g., the Internet) increases higher socio-economic groups acquire information at much higher rates than lower socio-economic groups (Severin & Tankard, 2001). A number of notable studies confirm these inequalities with a particular emphasis on science and public affairs, giving relevance to environmental justice (Gaziano, 1983; Gaziano, 1997; Tichenor, Donohue & Olien, 1970). If the hypothesis holds true, these groups will undoubtedly be better equipped to push their agenda over historically marginalized communities by turning this newly acquired knowledge into power.

In the end, my participants view and use of the Internet clearly reflects the degree to which the Internet is compatible with meeting their life goals, as well as the relative advantage it provides over other technologies. "It's quicker" and contains a "wealth of information" that you cannot find elsewhere, as a few participants noted. These two factors alone, compatibility and relative advantage, are most influential in a person's decision to adopt a new technology and how they eventually make use of it (Rogers, 2003). At one level, my findings add to our theoretical understanding of what contributes

to people's decision to adopt technologies in a community where adoption rates are predictably low. At another level, my findings suggest historically marginalized communities are using the Internet in productive ways, and in ways that could contribute, at least in an information seeking capacity, to some level of online civic engagement.

### **Roadblocks to Internet Use**

A final factor in whether historically marginalized communities would use the Internet for environmental advocacy is determining roadblocks that might prevent the use of these resources. One such roadblock is navigation problems. A number of Internet users noted problems of being lost or not being able to find their way around the Web. For information searches on complex government Web sites, this could block some Internet users' ability to access information. As expected, more studies are needed to fully understand the true depth and full impact of these barriers and how they might further the democratic divide. My findings, however, do reveal some interesting points that re-focus attention on first-order barriers, especially for those who are already skilled Internet users and might consider the Internet a resource for collective advocacy. My findings also reveal resourceful ways in which some non-skilled Internet users navigate around barriers.

Participants believed the greatest roadblock to Internet access in their community is cost. Considering economic hardships in the community, a central theme throughout so many interviews, this was not without warning. In some cases, participants reflected their own personal financial hardships, in other cases they talked about the plight of others. Overall, they believed cost to be the single greatest factor limiting Internet use in their homes, schools, and community.

Most notable was the large number of skilled Internet users who currently did not have access simply because they could not afford the costs of equipment and/or network connection. In almost all cases, a large number of participants were, at one time, online mainly through school or work. They were matter-of-fact and upfront about their economic situations, and explained the only barrier preventing them access was the inability to afford the equipment and/or service. Their explicit and detailed descriptions and knowledge of the Internet conveyed during the interviews and my own personal observations support these claims. In my study, only nine participants had never accessed the Internet, and even they had been exposed to it through work, school, or family. In one case, a participant showed me her computer, which she had stored in the closet, and said she was just waiting until she had enough money to pay for the service.

Consequently, my data show a number of sufficiently skilled and motivated individuals not presently online simply because of personal economic hardships. These same individuals claim to use the Internet in ways that could help them advance educationally and professionally. In their case, they have been Internet trained and inspired by the institutions responsible for diffusing the technology (e.g., higher education, government services, and private sector employers). For them, it appears the only roadblock is a first level divide – cost.

In theory, public access centers should be a solution for skilled Internet users who wish to be online. Unfortunately, participants largely believed these centers were inadequate and could not meet their needs. Therefore, only a few ever mentioned using them. Mostly, they cited too many restrictions on the center's hours of operation and individual computer use, an inability to locate the facilities, inadequate funding forcing

some to close, and the cost to personally commute back in forth. Some participants also were concerned of vandalism in the community and felt the pervasive problem of crime and violence would inhibit more community centers from being built and used. Each of these factors affecting Internet use should be further examined to see what extent these additional barriers can be addressed. Providing community Internet access is a reasonable solution toward closing the divide, but policy makers should be careful before buying into the *if you build it they will come* idea without considering these other potential roadblocks.

While other methodologies would be more appropriate for revealing second level barriers, such as skills and psychological barriers, my findings raise valid points that should re-direct our attention back to cost as a critical first-order barrier for low-income communities. Institutions of higher education, government services, and private sector employers have all but ensured broad exposure and experience with the Internet. Through this, many in the inner-city are developing at least basic skills required for Internet use and understanding the value it has in functioning in today's world. With better access and strong support systems they could continue to develop these skills.

For several years there has been an earnest effort to uncover underlying barriers, such as skills and cognitive limitations of the user. My findings too suggest these barriers might be blocking some participants' access to the Internet. These barriers should by no means be disregarded. However, I caution against shifting our research focus too far away from cost as an important barrier to Internet access, especially in communities where financial constraints appear so obvious. If we do, where does this leave those already skilled Internet users who are barred access simply because of cost? It is

imperative more research focuses on this group of sufficiently motivated and skilled people who realize the relative advantage of the Internet and are more likely to use the technology in positive and productive ways. We should also consider, as Internet access moves away from costly personal computers and closer to more affordable personal mobile devices, whether adoption rates increase, decrease, or remain the same for this group. Arguably, it is within this sufficiently skilled and motivated group where closing the digital and democratic divide could make the most strides.

### **Finding Their Way Around the Roadblocks**

Despite some notable roadblocks, non-Internet users found ways to navigate around them. Primarily, participants relied on close friends, family and colleagues for Internet support to help them successfully navigate, learn new skills, and search information online. My findings suggest these support systems play an important role in low-access communities by providing efficient and effective access to those currently denied access. In this case, participants turned to support systems for help with important life matters, including legal matters, personal health issues, government benefits, education, and work-related activities. Most, if not all participants, had people close to them that were savvy Internet users. In some cases, these skilled users were their children.

Overcoming barriers through personal support systems was an unexpected and positive finding for those who did not have Internet access. These vital support systems play an important role by opening up access to people who would otherwise be without – the same people who revealed Internet use is no longer a choice but a necessity for functioning and moving ahead in today's world. This finding reinforces participants'

attitude toward the Internet as a positive and productive force in their lives, and important information source that can help them advance personally, educationally and economically. Furthermore, it complements a small amount of research that shows the value of support systems in helping to overcome barriers to Internet access and encourage further diffusion of the technology in low-use communities (Hargittai, 2003, 2006).

For this inquiry, a more applicable question is what role, if any, do these support systems play in linking non-Internet users to online sources for purposes of environmental advocacy. Based on my findings, it seems they could play an important role, at least as an information source for staying informed. Studies attempting to measure inequalities in online information seeking for important personal matters (e.g., health) (Fox & D. Fallows, 2003; Lorence & Park, 2006; Miller, 2001) may want to consider support networks as a link to Internet use.

In the end, access alone does not ensure online civic engagement. One must be motivated to seek out those resources. For matters important to them, non-Internet users proved they would make the extra effort to seek help from their personal support networks. The more important question is will they consider environmental matters important enough to seek out this same help or will their interest in such matters continue to be eclipsed by more pressing and persistent problems.

### **A Note to Policy Makers**

An important objective of my study was to inform community leaders and policy makers of how the digital divide affected environmental advocacy in historically marginalized communities. Equal access to information and to decision makers regardless of race and income is the centerpiece of U.S. EPA's environmental justice

doctrine. The most basic question is would residents view and use the Internet in a way that would give them greater access to information and decision makers, or would they be left further behind?

What I found was a more logical barrier to environmental advocacy than a technological one – a barrier not in the forefront of our discussions of environmental justice. For leveling the playing field, it is a barrier that demands more from policy makers than simply ensuring equal access. They must play an active role in ensuring meaningful involvement of all people, especially people of color living in our inner cities. While I am optimistic for the future use of the Internet as an information source in marginalized communities, my greater concern is the understandable lack of motivation in these communities to acquire information about environmental problems facing them today.

Since the rise of environmental activism in the United States NIMBYism – Not in My Backyard style environmental advocacy – has been highly criticized for its short-sighted and self-seeking attempt toward individual environmental protection. NIMBYs have been accused of having a blanket disregard for more long-term sustainable programs and only focusing short-term attention on matters that affect only them. Poor African American communities fighting for environmental justice have been, at times, the subject of this criticism (Cox, 2006; Stoll, 2006). Yet for people who must put more important social and racial injustices first, how can you expect otherwise? I mean why worry about contaminated tap water when you cannot afford the water bill? For these citizens, environmental problems would have to land in their front yard before they turn their attention away from the extraordinary issues they face. Even sufficiently motivated

participants who had access to various technological resources ranked environmental problems behind more pressing racial and social injustices. Not because they thought environmental matters were less important; they simply had more threatening and critical life issues to contend with.

Therefore, I challenge policy makers to re-evaluate their approach to environmental justice and their relationship with disadvantaged communities. They must recognize that to achieve *meaningful involvement* the environmental justice doctrine calls for (U.S. EPA Office of Environmental Justice Division, 2008), they will have to play a much more active role. What may seem like a lack of motivation about everyday environmental problems should not indicate a disinterested community. Regulators are aware of the risks that exist. Strong consideration needs to be given to their local priorities, and in the end, community and environmental leaders may need to play a greater role in bringing these problems to the forefront and mobilizing support for solving them.

One good example is the city of Dayton's efforts to revitalize its brownfields. Once these derelict properties are cleaned up and developed they should help boost local economies and bring back lost jobs. The city of Dayton has proactively sought and received state and federal money to help cleanup and redevelop several former factory sites located in poor minority neighborhoods (U.S. EPA Brownfield Assessment Demonstration Pilot 2001; U.S. EPA Brownfields Grant Fact Sheet, 2004). In fact, one participant served on a local board charged with identifying and cleaning up brownfields in the city. Not only do environmental problems get resolved, but neighborhoods are



economically revitalized. In many cases, jobs are restored to these high unemployment areas solving multiple problems at once.

Specifically, my findings suggest community leaders and environmental policy makers should evaluate their methods for reaching historically marginalized communities. Communication strategies directed at mobilizing support, which rely heavily on Internet or other mediated communication, may not be the most efficient and effective method. Participants revealed a strong preference for face-to-face and local communication. Their high regard for local priority boards is a case in point. It was through these boards participants believed they had a voice, a place where they could be seen, and see others. They trusted their efforts directed at these boards would matter and would make a difference. They had a direct and ongoing link to authorities and could easily reach influential opinion leaders. Their preference for block parties, door-to-door canvassing, and neighborhood gatherings also emphasized their desire to communicate informally and interpersonally.

In addition, communication strategies should account for more highly charged discussions and passionate interactions with communities of color. Policy makers accustomed to using rational, scientific approaches to solving environmental problems should not instinctively dismiss concerns from communities of color as irrational without first understanding the context in which they are placed. Participants were understandably passionate, and sometimes decidedly emotional, when discussing problems of joblessness, crime and violence in their community, and their approaches to solving them. There is no reason to believe their efforts to address environmental risks would take on another tone. At times, participants wove their discussions of environmental risks

into their highly charged descriptions of racial and economic injustices in their community. On the surface, this may seem erratic and unreasonable to those who have not lived their experience, but for those who have, it is a perfectly reasonable response. Unwisely setting these concerns aside could certainly impede future communication and local support from those most at risk.

Also of note is that environmental problems in urban minority communities take on a much different meaning than how the mainstream movement defines them. This became quite clear to me through the course of this study. Policy makers would benefit by recognizing these differences and amend their communication strategies accordingly. Specifically, policy makers should define environmental problems in terms of the social injustices inherent to these poor minority communities. As examples, when discussing the preservation of green space, policy makers should point out how this will help reduce crime and offer safer recreational opportunities for youth. When galvanizing support to clean up industrial properties policy makers should remind citizens of the increased employment opportunities and tax revenues that will help improve street lighting, fire stations, police and security. And when discussing clean air, water, and housing they should explain how this will result in fewer trips to the hospital and better health for their children and their elderly residents.

Unfortunately, government programs have relied too heavily on highly structured, one-shot public meetings as way to gather public input and mobilize support – a format not conducive to conveying complex information, calculating citizens' viewpoint, and obtaining valuable feedback. These methods do not effectively engage disadvantaged communities, which value greater levels of interpersonal communication as my data

show. Government programs should also consider enlisting the help of local organizations like priority boards, which appear to have a strong and positive influence in the community and serve as a place that gives citizens voice and a belief that what they say matters.

### **Limitations**

Naturally, there are limitations with a study of this magnitude in addition to those already discussed. The most basic limitation to this study is the sheer size of my inquiry. Because I was covering such a large territory of questions related to broad concepts of Internet use and social advocacy, I could only reach so deep and go so far. I knew this when I began my study, but I strongly felt my approach to studying this topic was with merit and would generate new theories not before explored. My findings are just one view represented in one study of a very complex and broad topic. I fully expect and encourage them to be challenged, debated and discussed in a context that stimulates more studies, which hopefully will reveal new theories related to Internet use and environmental justice.

Qualitative research calls for great flexibility and willingness to surrender to data that leads in new direction (Bailey, 2007). From the point I decided upon my initial research questions I remained open to where participants took me. In doing so, I strongly believe I constructed participants reality about how they might (or might not) approach environmental advocacy. The use of qualitative methods let me bring these issues to the surface in a way other methods would not. At the same time, however, it was difficult to study some areas deeply enough, and as a result produced somewhat narrow theories.

The most notable limitation to my study was the ability to establish strong theories related to Internet use barriers. Other methods would be more suitable for examining these problems. Observations and case studies where researchers can spend more time with participants, and as a result better detect impediments to Internet use, would be more appropriate. Admittedly, extracting these concepts from conversation has its limits. In my study, I suspect some non-Internet users simply were not familiar enough with Internet technology and the skills it requires to be able to reasonably articulate what kept them offline. Interview methods also prevented me from observing Internet skills and psychological factors like user frustration, which the literature points to as possible barriers. Other methods would likely prove to be more prudent measures for examining these hurdles. Although my data show costs are a first-order barrier for many participants, second order barriers would also inhibit Internet use. These barriers should not be ignored and should continue to be accounted for in Internet use studies.

In social research our values do influence our selection of problems we study and our interpretation of data we collect. My own notions of life in an urban minority community certainly influenced my initial literature search, selection of participants, inquiry, and analysis of findings. While grounded theory helped me reduce personal bias, undoubtedly some levels of subjectivity remained. As an example, my own view of environmental problems changed during the course of my study. Despite efforts and techniques to reduce bias, I entered this study with my own definition of environmental problems based on my experience working in the environmental industry (see Appendix D). I admit my prior experience may have limited my ability to fully account for participants' views. While an ongoing literature review helped me adjust my ideals

during data analysis, my earlier notions certainly influenced how I framed my study, planned my inquiry, and developed interview questions. Consequently, participants' views of environmental problems, as they might define them, cannot be fully accounted for by my data alone.

Reflecting back, I certainly injected my own biases to some degree into how participants viewed environmental problems by not entirely realizing how closely these problems were tied to other social injustices. I knew other injustices would take precedence and bring meaning to these problems, but not to the extent my data revealed. I now understand more fully the context in which environmental problems in minority urban communities should be viewed and see they cannot be studied as stand alone issues. Future studies should allow participants to define these problems on their own terms and should design their questioning to account for these unique circumstances.

### **Closing Remarks**

Research on the digital divide would be better served if we modify our current focus. We must begin to look at more specific ways new technology is being used (or not being used), especially in communities who are subject to a number of other social injustices. We must move ahead of the obvious socio-economic variables that define the divide and look harder at how people are coping in a new Internet world. We must consider bona fide constraints upon these individuals – beyond just personal limitations – and acknowledge the positive influence our institutions (e.g., urban community colleges) have upon Internet adoption and use in the inner city. We must also realize closing the divide will not single-handedly empower individuals to solve all their problems, but acknowledge there are many factors at play. Most of all, we need to realize answers to

our questions are sometimes in plain sight, and our job is simply to bring these answers to the forefront by listening and observing those who know best. As communication scholar and well-known critic James W. Carey (1988) wrote:

The social sciences can take the most obvious yet background facts of social life and force them into the foreground and wonderment. They can make us contemplate the particular miracles of social life that have become for us just there, plain and unproblematic for the eye to see. (p. 24)

I cannot emphasize enough the value of qualitative research in exploring the digital divide and civic engagement in historically marginalized communities. It is much easier to overlook the obvious when we operate outside the trenches. From the first interview I realized there was more to the story than what my earlier conceptions held. I hope an earnest effort among scholars will continue to capitalize on what a variety of methods reveal.

Above all, my most important objective was to remain open to whatever direction participants took me and to share their views and experiences the best way an *outsider* could. I believe this approach served my study well, and I have accomplished what I set out to do. I hope those I interviewed agree. Naturally, my exploration would not have been possible without their willingness to share their experiences with me. On many levels, they contributed to my study in ways that made this inquiry worthwhile. As a result, we were able to raise important questions and set new directions for studying the digital divide and environmental advocacy.

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## APPENDIX A: PARTICIPANT RECRUITMENT LETTER

### ADVENTURE CENTRAL

#### AT WESLEYAN METROPARK

2222 N. JAMES H. MCGEE BOULEVARD • DAYTON, OHIO 45427 • 937-268-1037 • FAX: 937-268-8428 • WWW.ADVENTURECENTRAL.ORG

June 11, 2007

Subject: **YOUR HELP NEEDED**

Dear Parents:

Greetings! Over the next few weeks you may notice a “new” person hanging around. Her name is Jane Dailey and she is from Louisiana State University. She is looking for **20 adult volunteers** to participate in two separate discussion groups about why people do or don’t use the Internet. All participants will receive a **\$20 gift certificate** to Kroger’s. The information gathered will be used to help Ms. Dailey complete her degree and to inform government leaders about your community and others like it are using the Internet.

The session will last about 1 ½ hours and refreshments will be provided. It will be an open discussion where you and other participants do most of the talking. If you have any questions about the discussion groups, please call and talk with me or Ms. Dailey.

To participate, you must be at least 18 and live in the community. You also will be asked to sign a consent form. Ms. Dailey will be calling parents over the next few days to sign up volunteers. You can also sign up by calling us at 278-2601 or stopping by the next time you are at the Adventure Central. A sign-up sheet is at the front desk. Just indicate which session you want to attend:

**Monday, June 25**  
**5:30 to 7 p.m.**  
**Adventure Central**

**Tuesday, June 26**  
**5:30 to 7 p.m.**  
**Adventure Central**



Jane Dailey

As always, we value your time and willingness to help make a difference.

Sincerely,

Nate Arnett  
Adventure Central Director



THE OHIO STATE UNIVERSITY EXTENSION 4-H YOUTH DEVELOPMENT & FIVE RIVERS METROPARKS  
“PARTNERS IN POSITIVE YOUTH DEVELOPMENT”



## **APPENDIX B: REVISED RESEARCH QUESTIONS**

RQ1: What type of role, if any, do those who live in communities that fall on the low end of the divide play in community-based advocacy?

RQ2: What perceived role do those who live in communities that fall on the low end of the divide believe electronic media play in supporting their ability to obtain and communicate matters important to them and their community?

RQ3: Do those who live in communities that fall on the low end of the digital divide perceive the Internet as a civic engagement tool for participating in environmental advocacy?

RQ4: Do those who live in communities that fall on the low end of the digital divide trust that given Internet access their actions online will be productive?

RQ5: What barriers do those who live in communities that fall on the low end of the divide cite as reasons for not using the Internet?

RQ6: What barriers do those who live in communities that fall on the low end of the divide cite as reasons for not using the Internet for environmental advocacy?

## APPENDIX C: QUESTION GUIDE

1. What is your name and your connection to Adventure Central (Do you have a son or daughter in the program?) (focus groups only)?
2. Tell me what is it you like best about your community?
3. Now, imagine that I'm a genie in a bottle and I'm going to grant you one wish to change this neighborhood. Write down one thing that you would wish to change in your community.
4. How would you go about changing it?
5. Tell me what role you would most likely play in solving this problem?
6. Not all of us are born leaders just like I'm not a real genie. Knowing we are not all leaders who would you turn to, to help you solve this problem?
7. Now let's talk about the Internet. For those who use the Internet, when did you start using the Internet and why? (focus groups only)
8. Where do you use the Internet? Home, work, other place?
9. What is it about the Internet that makes you use it (or want to use it)?  
  
**Probe:** What do you (would you) spend most of your time doing online?  
  
**Probe:** How has it helped you, (could help you)?
10. What is it about the Internet that makes other people you know use it?  
  
**Probe:** Do you think they use it for the same things you do?  
  
**Probe:** Can you give an example?  
  
**Probe:** How many of your friends, family, co-workers, neighbors use the Internet? All? About half? Less than half?
11. What is about the Internet that makes you NOT want to use it?  
  
**Probe:** What would keep other people in this community from using it (focus group only)?

12. I saw some brochures in the lobby about asthma. Some people believe that poor air quality causes asthma. What do you think? What, if anything in your community concerns you most? What else?

**Probe:** How would you go about addressing this problem?

**Probe:** What about other people you know.

**Probe:** How effective do you think you would be?

13. I'm "genie" again. If I granted you one more wish, what one wish would you ask for to make the Internet easier for you (or people in your community) to use?
14. Was there anything you felt we should discuss that we did not?

## **APPENDIX D: RESEARCHER'S INTEREST**

My interest in the study originates from primarily three areas: 1) my work in environmental policy and community relations for the Ohio Environmental Protection Agency 2) my work in inner-city brownfield redevelopment and community involvement for a private environmental consulting firm, and 3) my academic coursework in the field of mass communication. Through working with Ohio EPA and a private consulting firm, I had several opportunities to work in minority and/or low-income communities with environmental justice issues that helped acclimate her me these issues and heighten my interest in the digital divide. Some of that work included:

- Strategic planning for urban revitalization and environmental cleanup, Gary, Indiana
- Community relations and funding for the cleanup and redevelopment of the abandoned Schmidt Brewery property, East Cleveland, Ohio
- Community action group planning for groundwater clean up at a metals processing plant, Cuyahoga County, Ohio
- Redevelopment of various commercial properties in a majority minority community, Warrensville Heights, Ohio.

Furthermore, through conducting over 75 public meetings over the course of my career and being responsible for the public notification and education of environmental matters, I became intimately familiar with public involvement policies, public notice procedures, the role of mass media, and citizens perceptions of their role in the process. From my experience, I found several recurring issues related to public involvement and environmental matters: 1) those that are most affected by environmental problems also face a multitude of other social injustice issues 2) the public notification process and use of media is largely perceived as deficient in reaching those who are most affected by



environmental problems, 3) citizens are often frustrated and do not believe they have equal access to the resources and knowledge they need to effectively compete in policy decisions at the same level as more advantaged communities and private sector businesses, and 4) citizens lack trust in efforts to engage them.

For these reasons, I believe the introduction of new media (e.g., Internet) creates more barriers to its use than just physical access. Furthermore, the Internet could profoundly affect those who do not perceive the Internet as a civic engagement tool that will help them by further empowering those who were already politically active. The ramifications for environmental justice communities in remaining offline is that in the future, it may be even more difficult for them to compete against the empowered (Norris, 2001; Rojas, et al., 2003). Therefore, understanding how this current trend affects those with the most at risk warrants my investigation to further both the academic and applied understanding of the digital divide and its effects on society.

Finally, through numerous contacts with marginalized individuals, organizations, and supplemental readings on the topic, I have developed a greater insight into the perceived and real effects of social injustices and cultural beliefs surrounding new technology and those that they believe are the empowered. Through my experience with and sincere interest in social justice matters, I strongly believe that applying research on the digital divide to environmental justice matters can provide a much deeper understanding of the future of the Internet as a civic engagement tool in marginalized communities.

## APPENDIX E: IRB APPROVAL

IRB #: 3500 LSU Proposal #: \_\_\_\_\_

Revised: 10/04/2006

LSU INSTITUTIONAL REVIEW BOARD (IRB) for  
HUMAN RESEARCH SUBJECT PROTECTION

578-8692 FAX 6792  
Office: 203 B-1 David Boyd Hall

### APPLICATION FOR EXEMPTION FROM INSTITUTIONAL OVERSIGHT

Unless they are qualified as meeting the specific criteria for exemption from Institutional Review Board (IRB) oversight, ALL LSU research/projects using living humans as subjects, or samples or data obtained from humans, directly or indirectly, with or without their consent, must be approved or exempted in advance by the LSU IRB. This Form helps the PI determine if a project may be exempted, and is used to request an exemption.

Instructions: Complete this form.

Exemption Applicant: **If it appears that your study qualifies for exemption send:**

- (A) Two copies of this completed form,
- (B) a brief project description (adequate to evaluate risks to subjects and to explain your responses to Parts A & B),
- (C) copies of all instruments to be used. If this proposal is part of a grant proposal include a copy of the proposal and all recruitment material.
- (D) the consent form that you will use in the study. A Waiver of Written Informed Consent is attached and must be completed only if you do not intend to have a signed consent form.
- (E) Certificate of Completion of Human Subjects Protection Training for all personnel involved in the project (including students who are involved with testing or handling data) at <http://cme.cancer.gov/clinicaltrials/learning/humanparticipant-protections.asp>. (Unless already on file with the IRB.)

to: ONE screening committee member (listed at the end of this form) in the most closely related department/discipline or to IRB office.

If exemption seems likely, submit it. If not, submit regular IRB application. Help is available from Dr. Robert Mathews, 578-8692, [irb@lsu.edu](mailto:irb@lsu.edu) or any screening committee member.

Principal Investigator Jane C. Dailey Student? Yes Y/N  
(225)

Ph: 266-3016 E-mail jdailey2@lsu.edu Dept/Unit Mass Comm  
(225)

If Student, name supervising professor Dr. Lisa K. Lundy Ph: 578-2216  
(225)

Mailing Address 245 Hodges Hall Ph \_\_\_\_\_

Project Title Digital Divide and Environmental Justice: Perceptions of the Internet in Historically Disenfranchised Communities

Agency expected to fund project N/A

Subject pool (e.g. Psychology Students) Adults over age 18 living in inner-city

Circle any "vulnerable populations" to be used: (children <18; the mentally impaired; pregnant women, the aged, other). Projects with incarcerated persons cannot be exempted.

**I certify my responses are accurate and complete.** If the project

scope or design is later changed I will resubmit for review. I will obtain written approval from the Authorized Representative of all non-LSU institutions in which the study is conducted.

PI Signature Jane C. Dailey Date 12/6/06 (no per signatures)

Screening Committee Action: Exempted ☒ Not Exempted ☐ Category/Paragraph \_\_\_\_\_

Reviewer Anne Osborne Signature \_\_\_\_\_ Date 12-05-06

Study exempted by  
Louisiana State University  
Institutional Review Board  
203 B-1 David Boyd Hall  
225-578-8692  
Robert C. Mathews, Chair

## **VITA**

Jane Dailey is a native of Gallipolis, Ohio. She earned a Bachelor of Science in communication from the University of Rio Grande and a Master of Science in journalism from Ohio University. Her doctorate is in mass communication, which she earned from Louisiana State University in 2008.

Jane has 18 years of professional public relations in the environmental field and earned her Accreditation in Public Relations (APR) in 2000. As a former partner of an environmental engineering firm, she managed the government and community relations division and was involved in writing numerous environmental grants. She was a former lobbyist in Ohio and was involved with the development of several major pieces of environmental legislation, including Ohio's Brownfield law and the Clean Ohio Fund.

Jane has published in several trade publications, participated in professional and academic conferences, and has been recognized for her professional achievements. Her teaching experience includes speech communication, media writing, public relations principles, and public relations writing. Currently, Jane is an assistant professor of public relations at Marietta College, in Marietta, Ohio.

Jane's graduate studies focused on public relations, new media, interpersonal communication, environmental risk communication and environmental justice. She currently resides in Marietta, Ohio.