How Can Basic Computer Skills and Access to the Internet Benefit Homeless Persons in a Community Day Center?

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Very little research literature is available on internet access among homeless persons in shelters and community centers. The idea of the *Digital Divide* - the difference between the “information haves” and “information have-nots” - is explored in reference to low income persons, but not for those who lack a regular place to live, though there are similarities between the two populations. To hypothesize that knowledge of computers and access to the Internet will benefit homeless persons is yet to be questioned. Research shows that with the advent of computers and the Internet, technology can provide a cost effective way to mainstream financial services, health care, jobs, education, and home ownership (Hecht, 2001). In a study on community technology centers, Kaiser (2005) asserts that users visit computer centers to enhance their job skills, increase their education, and attempt to better themselves by either improving their skills or raising their self-esteem. Barriers surrounding these benefits for homeless persons include access, training, and perceptions of value.

*Access*

Understanding how homeless persons gain access to computers and the Internet is vital in gauging the benefits for them. In a recent ten year period, computer use in American homes has grown from 22.8% to 61.8% (U.S. Census Bureau, 2000). As a result, a U.S. Department of Commerce report states that “internet access in no longer a luxury item, but a resource used by many” (2000, p. xviii). For those who do not own a computer and are unemployed, public libraries appear to be a more likely place to access the Internet (U.S. Department of Commerce, 2000). However, public libraries are not always a viable choice for a homeless person. Unfortunately, “in many circumstances, the homeless were very sensitive to a feeling of unworthiness” in the perception of the (library) information provider.” (Hersberger, 2005,
In addition, other reasons given for the homeless not using the Internet at the public library included transportation difficulties, not knowing how to use the Internet, and a concern for privacy (Hersberger, 2003).

Since little research is devoted to the benefits of providing internet access to homeless persons in shelters or community centers, it is difficult to provide evidence of benefits. However, the following account by Chapman and Rhodes demonstrates a positive case study:

Timika Mitchell was living in the Salvation Army shelter in Austin, Tex., when she developed her first home page on the World Wide Web. … Thanks in part to her abilities to create on the Web, this tall, talkative, self-directed young African American woman landed a job with Time Warner, moved into her own apartment, and created a second Web page, where she plans to publish her poetry (1997, p.49).

While many communities offer free internet access in public libraries, Austin, Texas boasts access to Free-Net terminals in places where people tend to gather informally rather than in the quiet solitude of a library (Chapman & Rhodes, 1997). However, not everyone believes that internet access does benefit homeless persons. In an opposing view, Hersberger (2003) concluded that the lack of access to information technology did not affect how the homeless access basic level needs information due to the perceived value placed on face-to-face interaction.

**Training**

Providing access means nothing without training and basic computer skills. In a study performed by the Pew Foundation (2002), Digital Divide have-nots expressed concerns unrelated to internet access. The study revealed that 36% of non-users expressed concern that the online world is confusing and a hard place to negotiate. In another discussion on the Digital Divide,
Kaiser (2005) postulates that to resolve the issues of access, a means to improve education to ensure that citizens will use computers and the Internet must also be part of the solution. Jung, Qui, and Kim (2001) went even further and introduced the theory of Internet Connectedness. The Internet Connectedness Index (ICI) is a measure for monitoring long-term inequalities of internet connections among users, especially in terms of whether internet connections will enhance the chances of people’s upward mobility. They found group variances of ICI are significant for both income and education. This is important because even with increased access to the Internet, the issue of Digital Divide is still present. They concluded that “individual items of ICI can signal what kinds of specific interventions are necessary for certain groups of people” (p.530).

Further emphasis is placed on the critical need for training when Blau (2002) asserted that giving people access to a computer attached to the Internet is only the start of resolving the issues of the Digital Divide. Likewise, Wagner and Hopey (1998) investigated an internet-based computer writing project for adults living in a homeless shelter and “showed that such disadvantaged populations can be reached effectively through the Internet” (p.9). Hecht (2000) also asserted that “Today, technology provides the power needed to help low-income people make the connections and access the information, products, and services that can improve their quality of life and enable them to build assets” (p.45). Even though the various studies agreed that training is essential in closing the gap between the information haves and the information have-nots, additional research is still needed to support the hypothesis.

**Perceptions of Value**

Lastly, Hersberger (2003) adds another important element. “Training current shelter residents to find digital information is a possibility, but first, the individuals would need to determine that the pursuit would be relevant to some need.” (p.61). In a study performed by the
Pew Foundation, Horrigan and Rainie (2002) reported that for information on services from a government agency, 65% of all Americans think the Internet will have the information they need. Likewise, for health care information, 67% of Americans expect to find reliable information online. This is supported by a study by Liszka, Steyer, and Hueston, (2006) in which they concluded that in a patient population from a lower socioeconomic background, the Internet plays a major role in patients seeking health care information.

In developing theory on information poverty, Chatman (1996) stated that people who are information poor perceive themselves to be devoid of any sources that might help them. Hersberger (2003) countered this theory and found that this was not true for the homeless participants in her study. The participants reported that a lack of information was not an issue, but finding available resources was. Although Hersberger did not find evidence that access to computers and the Internet offered any benefits to the homeless, she did contend that “In the future, as the more computer-literate age, and become homeless, there could be a higher demand for access to digital information technologies” (p.61).

Conclusion

As previously noted, little research is available to either support or deny the benefits of granting access to computers and the internet to homeless persons. If homeless persons can be grouped with either the low-income population or the unemployed population, then certain assumptions could be made. Unfortunately, both populations are referred to in the literature in terms of “households,” which is not true of the homeless.

Research Question

To address the need for further research in this area, future studies can explore the idea that knowledge of computers and access to the Internet will benefit homeless persons. Some
people may accept the hypothesis and others may reject it. Either way, to accept or reject is not relevant for this study. What is relevant is the exploration of the phenomenon in relation to the Newark Empowerment Center, a community day center that serves homeless persons in Delaware. Therefore, the purpose of this study is to investigate “How Can Basic Computer Skills and Access to the Internet Benefit Homeless Persons in a Community Day Center?” The goals are to gain an understanding of the clients’ current attitudes towards computers and the Internet and learn the specific needs of the homeless and how the technology can address some of those needs. In short, is this a service that the clients will even want, and if so, what assurance is there that the benefits most needed are the same as what can be offered?

Sampling Frame

The sampling frame for this study will consist of homeless persons who utilize the services of the Newark Empowerment Center, a community day center located in Newark, Delaware. For this study, the sampling frame is best defined by Bill Perkins (2007), Executive Director of the center. He defines homeless persons as anyone living on the street, in transitory housing, in someone else’s space, such as with friends or family, or in transitional housing.

Non-random sampling is appropriate for this study for varying reasons. First, the homeless population is difficult to define and therefore, trying to generalize to the population from a sample will be difficult. Furthermore, the intent of this study is to gain knowledge for local purposes, not to make national generalizations. Convenience sampling is preferred because the participants will be readily available and easy to identify. To be included, the participants must be at least 18 years of age. A sample size of only 50 participants is proposed based on the number of current monthly clients and that the clients at the Newark Empowerment Center are
fairly homogenous. However, if the number of clients increases substantially between now and when the study takes place, the sample size will be increased appropriately.

Data Collection Method

Regular center volunteers who have established relationships with the center clients will be asked to conduct standardized interviews. A closed quantitative interview in a one-on-one conversation is preferable over a paper questionnaire for several reasons. First, many of the visitors come to the center for hospitality and conversation and would likely prefer the personal attention of an interviewer. Also, some of the participants may have literacy problems, making a written questionnaire difficult. Finally, providing the homeless with a sense of worth by asking their opinions may result in more thoughtful and meaningful data.

Upon arrival at the center, the receptionist will ask any qualifying clients if they would be willing to participate in a study about computers and the Internet. If the client is willing to participate, the volunteer will explain the purpose of the research study and that their responses will remain anonymous. The interview should not take more than 20 minutes. Upon completion, the interview forms will be left with a professional staff member and later collected by the researcher.

Research Design

The method that will be employed is a cross sectional, non-experimental quantitative research study designed to be primarily descriptive and somewhat predictive. The purpose is to describe the status, characteristics, and perceptions of the technology among the center clients. Likewise, gaining insight into how participants may foresee possible uses of the technology will help gauge future activity. Though this is considered a cross sectional study, the exact time frame of the study is dependent upon meeting the goal of at least 50 completed surveys. The data
collection period will extend between one week and one month. In addition, the interviews will be planned for the winter when the Empowerment Center is likely to be more active.

The protocol will consist of a combination of closed-ended questions, fully anchored four-point agreement scale items, and a series of items using the semantic differential scaling technique. Aside from demographics and level of technological experience, items pertaining to specific uses, such as applying for a job, preparing a resume, or completing an on-line application for services, will give focus to the study. Prior to developing the survey instrument, the researcher will consult with the Empowerment Center’s staff to learn the language of the homeless population in this area. Plans will also include employing the “think aloud” technique followed by a pilot test of the instrument with the professional staff. To assess the reliability of the survey instrument, retesting using the alternate form method to measure the consistency of the scores on a few of the basic questions will take place a few weeks after the initial interviews. Validity will be based on content: the degree to which the items are directly related to computer and internet use. The volunteers will undergo a training session on the protocol that will be conducted by the researcher. The training will include how to answer questions without biasing the participants’ response and interview procedures such as maintaining impartiality.

Planned Statistical Analysis

For purposes of this study, simplicity is best. The focus is to determine how basic computer skills and access to the Internet can benefit homeless persons. By providing statistical data on current levels of use and potential uses, the goals of the research question can be satisfied. Data from the quantitative interviews will be reported using descriptive statistics such as simple frequencies, cross tabulations, and percentages. For the categorical data, such as age, gender, and education, a table of simple frequencies and percentages will be included. To
identify statistically significant differences between groups in relation to computer and internet use, a chi-square analysis using a p-value <.05 will also be included. Items from the four-point rating scale will be presented as percentages for each item. Finally, the exact method for analyzing the semantic differential scaling is undetermined. Possibilities include a narrative with percentages highlighting key points or an average profile of attitudes based on different groups.

Threats to Internal Validity

The internal validity for a non-experimental study is the belief that a direct relationship exists between variables. One possible threat to the internal validity for the proposed study is ambiguous temporal ordering. However, the ordering is irrelevant since the study is both descriptive and predictive. Another threat is in instrumental validity based on the variation in volunteers who will be conducting the interviews. Proper training of the volunteers will be conducted to ensure consistency. Finally, differential attrition could present a bias depending on if the clients who choose to participate in the interviews are distinctly different from those who do not.

Threats to External Validity

Population Validity, the ability to generalize study results to all individuals in the population, could pose a threat to the external validity of the study due to the sampling frame. Since the intent of the study is localized within the Newark community, it is important to draw the sample of participants from the same community. However, the Empowerment Center is newly formed and is currently housed in a temporary location. As a result, the sampling frame proposed may not be a true indicator of the population of the homeless in Newark. A follow-up study may be deemed necessary pending preliminary results. Additionally, temporal validity may be an issue due to the rapid rate of changes that occur within information technology.
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