

Field Reports

Limited Access: The Information Superhighway And Ohio's Neighborhood-Based Organizations

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“COMPUTERS IN HUMAN SERVICES”

Abstract. Of 189 Ohio urban neighborhood-based organizations (NBOs) responding to a survey, three have full access to the Internet. At the same time, they have many information needs that can be met best through the Internet. The small size and small budgets of many NBOs (only about half of Ohio's NBOs have budgets greater than \$100,000) make it difficult for them to acquire adequate computer technology, learn how to use it for Internet access, and make the most of that access. Additionally, most NBOs—even those in working and middle class neighborhoods—need training and technical assistance especially for advanced applications such as telecommunications and Geographic Information Systems software. Internet access needs to be more uniformly available and affordable to NBOs. Finally, we need to continually think of the Internet as a resource not a substitute, for local communities. [Article copies available for a fee from The Haworth Document Delivery Service: 1-800-342-9678. E-mail address: getinfo@haworth.com]

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(Note: email addresses and web links in this document may be out of date.)

INTRODUCTION

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In highway planning, a “Limited-Access Highway” is a restricted space. It divides the landscape and separates those who can use the road from those who cannot. Bicycles, pedestrians, and slow moving vehicles are not allowed. Further, Limited-Access Highways are sometimes “toll roads.” Not only must potential users have access to appropriate vehicles, they must also sometimes be able to pay the access fee.

The “information superhighway” –is, so far, a limited-access toll road. The physical requirements for getting on the highway—a fast computer with plenty of hard-disk space and a super-fast modem to send and receive data—are expensive. And while there are some “freenets” available in some cities, often the toll for full access to the Internet, usually through a commercial service provider, can be hefty.

Even more so than for real highways, there is inequality of access to the information superhighway (U.S. Department of Commerce, 1995; Working Group Against Information Redlining, n.d. Anderson et al., 1995, Buck, 1996) People of color, people living in poverty, and their organizations lack the resources to access the Internet. This matters, as the Internet is less and less an “option” for anyone needing financial, policy, and other information resources. Increasingly, the Internet is the *only place* where some information can be found. Additionally, government program information is already much easier to obtain from the Internet (taking minutes of “Web surfing” instead of hours of transferred phone calls and then weeks of waiting for the mail to arrive). Census data, foundation data, community development program information, and a wealth of other information are all readily accessible from the Internet. For individuals, even fobs are posted on local Internet systems such as Neighborhood Link (<http://.little.nhlink.net>). Those who lack access to the Internet, then, will lose out in an increasingly competitive environment. They will also lack the contact with others, available through list-services, E-mail, and other forms of Internet communication that can help them overcome the destructive impacts of that competition.

This reality is especially important for neighborhood-based organizations (NBOs). While many NBOs have 501 © IRS tax-exempt statuses, many other do not. Generally, NBOs are governed or directed by a board of directors drawn from their neighborhood. They focus on problems that manifest themselves in their neighborhood—abandoned housing, poor street maintenance, crime, health, education, environmental threats, and many other issues. Because so many NBOs are small, geographically isolated, and woefully under funded, their members often don’t have efficient access to the information needed to understand all aspects of their neighborhood problems and the paths toward solutions. Their neighborhood member, usually working full-time jobs outside of their NBO involvement, don’t have time to be put on hold six times in the city bureaucracy to solve a problem. They don’t have time to go to the downtown library and research grant possibilities. And they don’t have travel funds to learn how NBOs in other places are solving similar problems. Even in working and middle class neighborhoods, time and information constraints hinder NBO’s problem solving abilities.

The Urban University and Neighborhood Network (UUNN) is dedicated to bringing together Ohio’s urban universities and NBOs in a collaborative relationship that recognizes the unique skills and expertise of each participant. We have been studying NBO access to the Internet over the past year. The purpose of this paper is to show the “NBO gap” in Internet access, the benefits that could accrue from such access, and steps to help NBOs get on-line and increase their capacity to solve neighborhood problems.

BACKGROUND AND METHOD OF THE STUDY

This study was part of our larger project linking NBOs across the state of Ohio to increase their resource base and policy influence. We conducted the research following a participatory” or “collaborative” research method where university researchers and community organizations jointly develop research that furthers the goals of community-based organizations (see Stoecker and Bonacich, 1992,1993). In each of the seven cities of the UUNN (Akron, Cincinnati, Cleveland, Columbus, Dayton, Toledo, and Youngstown), we recruited NBO participants to core groups, expanding on the model developed by the Policy Research Action Group (PRAG) in Chicago (<http://www.luc.edu/depts/curl/prag/>) which conducted collaborative research using consisting of the university-based researcher, a research assistant, 4-5 NBO representatives and in some cases others. The core groups guided the entire project. Core groups met early on to determine the questions of this research and the population to be surveyed, working from existing directories and their own knowledge of NBO networks. Cincinnati included a network of neighborhood-based environmental groups in their definition. Youngstown emphasized public housing tenants organizations. Columbus involved a network of settlement houses. Toledo, Cleveland, and Cincinnati have strong community development corporations. The core groups reviewed multiple redrafts of the survey instrument. After researchers gathered the results, the core reviewed and commented on a draft of the research report. The core groups also helped outline the conference where research results were presented. At the conference, attended by about 60 people-the vast majority NBOs, the UUNN developed a mission statement, evaluated the past year’s work, developed and action plan based on the research results and planned the next year’s project (Stoecher, 1996).

The researchers administered the survey by mail in February 1996 to the population of NBOs identified by the core groups in each city-30 in Akron, 162 in Cincinnati, 160 in Cleveland, 70 in Columbus, 68 in Dayton, 104 in Toledo, and 19 in Youngstown. Each four-page survey was sent with a cover letter and consent form. The consent form asked the neighborhood organization for permission to use a portion of the information in a database accessible via the UUNN’s web site (<http://131.183.70.50/docs/uunn/uunn.htm>). In most cases the executive director or organization president completed the survey, though in some cases other staff members completed the section asking for technical information on the organization’s computer. After one mail follow-up and targeted phone follows, the returns ranged from approximately 20 percent to 33 percent across the cities. In total, 189 surveys were returned. Much of the lack of return can be accounted for by the fact that many very small organizations were included in the survey population. If we look only at those organization believed to have 501©(3) tax-exempt status, the return rate probably ranges between 50 percent and90 percent across the cities (since surveys identified each organization, we could quickly tell that larger NBOs returned proportionally more surveys) The smaller and less stable the organization, the less likely they were to return the survey. Our continuing work in each city also gives us confidence that we missed few, if any, NBOs with Internet access.

The results of our analysis are presented in the following sections. On some questions not all 189 NBOs gave complete information on a question, so totals may be less than 189.

OHIO'S NBOs-THEIR CAPACITY, THEIR ISSUES

Who are Ohio's urban NBOs? The 189 organizations in our study reflect the trends and range of organizations working on neighborhood issues. About half of the NBOs have annual operating budgets of \$100,000 or less. Staffing levels of these organizations are correspondingly low. Only half of the NBOs have more than two staff members. With probably the most extensive network of NBOs of any city in the state, Cleveland's are better staffed and better funded than in other cities. There is also a *numerically*, but not proportionately, stronger core of organizations in Cleveland using computers and accessing the Internet. However, Cleveland's NBOs do not concentrate on any issue proportionally more than NBOs in the other cities, They do not show proportionally more computer usage or Internet access, and they do not show different levels of need.

What issues do Ohio's NBOs focus on? The core groups came up with a master list of issues that NBOs confront, and we asked all the respondents to check how important those issues were to their organization. Most NBOs concentrate on community organizing, community safety, economic development, and housing. But NBOs rate the other issue areas-environment, health, social services, and workforce development-as at least somewhat important.

NBOs INFORMATION NEEDS

If we are going to do research on NBO Internet access, we need to be convinced that Internet access will benefit NBOs. NBO staff and volunteers are already terribly overworked. Time and again we have heard from the NBOs that they have tried the Internet, and they couldn't find what they wanted quickly, so they gave it up. We have also heard their frustrations at trying to find grant money, trying to meet application deadlines they found out about too late, and trying to plan extremely complex projects with little to no technical assistance. In justifying this research, one of our most important concerns was whether NBOs already had adequate access to needed information and whether the Internet could provide more efficient access to more information.

One-core groups determined that six information areas are most important to NBOs (see Figure 1). NBOs most want information on their service areas and on finding opportunities. Information on relevant laws, pending legislation, and technical assistance are also important. Interestingly, obtaining information on what other organizations are doing received the fewest "very important" votes, but the most "somewhat important" choices. This may only be a matter of priorities, as leaving what other organizations are doing will not be very helpful if you don't know your own backyard, and don't have any funds or technical assistance to begin with.

Most important for this research are NBO evaluations of how easy those kinds of information are to obtain. As figure 2 shows, none of it is easy to get. But legal,

legislative, funding, and technical assistance information stand out as the most difficult to obtain. Of these categories at least three- pending legislation, funding, and technical assistance-can be obtained from the Internet perhaps more effectively than from any other source, as we will explore.

***THE BASICS-
NBO COMPUTER HARDWARE AND SOFTWARE***

What is the existing computer capacity of NBOs and what do they use it for? Computers are more than just the Internet, especially for NBOs, who must manage constantly changing membership lists, track complex financial dealings, produce newsletters, and prepare intensely detailed grant applications. Many have far more to do than their computer capacity allows. NBO staff often share computer, leaving one person waiting while another finishes their work.

How are NBOs using their computers? Figure 3 shows that word processing is the most commonly used software on NBO computers, but database and spreadsheet programs are also used regularly. Desktop publishing, a must for NBOs who depend on flyers and newsletters for getting the word out, is also popular. The two kinds of software most conspicuous by their absence are telecommunications and Geographic Information Systems (GIS) software. One reason that NBOs may neither have nor use this software is because of inadequate computer hardware. GIS software, operator skill and large computer capacity. Telecommunications software,

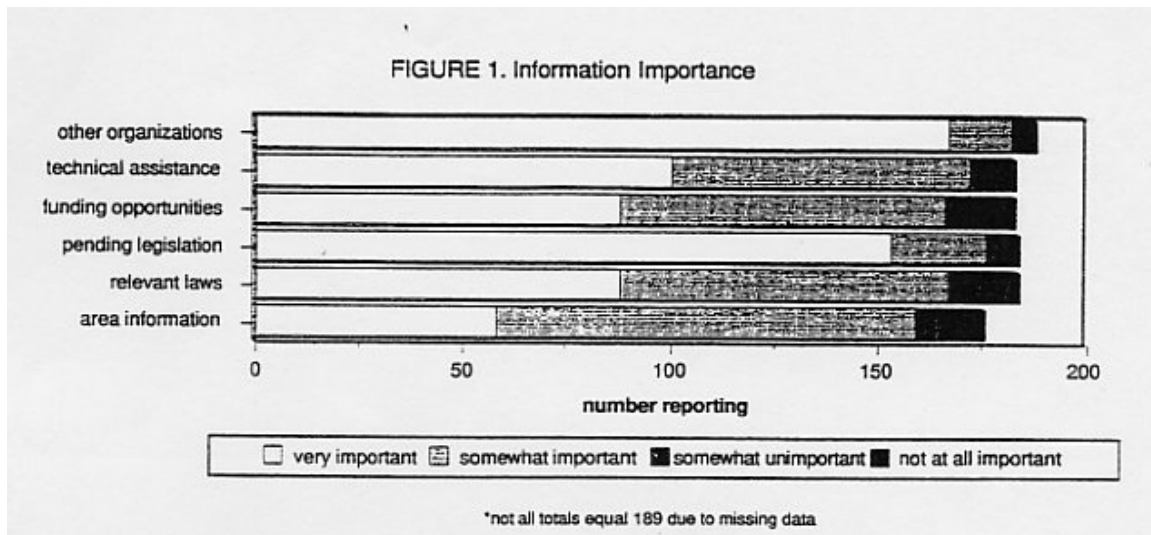


FIGURE 2. Information Access

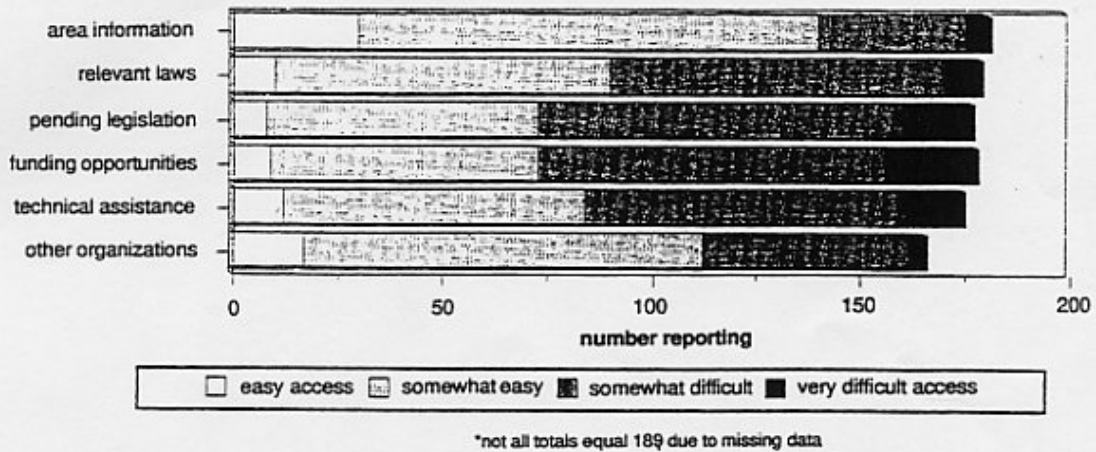
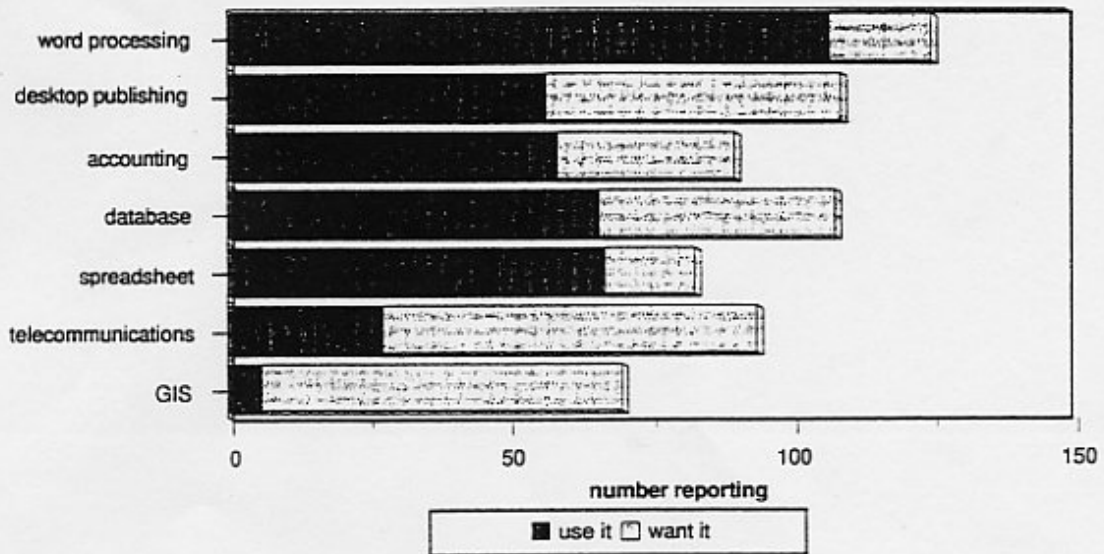


FIGURE 3. NBO Software



If it is going to effectively access the Internet, also requires up to date computer hardware with fast modems.

Can NBOs get on the Internet now? The technology many now have to “surf the net” is comparable to surfing a wave with a sheet of plywood-it might work but it’s not pretty. We asked NBOs a variety of technical questions about their computer hardware, and our results in this section should be interpreted cautiously because of the number of surveys that checked “don’t know” for some items. But that is telling in itself, since part of the difficulty in getting Internet access is knowing how, which involves education and

training. Nonetheless, a significant barrier, which we will explore in this section, is the technology itself

We asked NBOs to give us information on their “most advanced” computer. Our workable minimum hardware standard for full Internet access was based on the following: For IBM compatible computers, which were the vast majority, a Windows 3.1 or Windows 95 operating system, 8MB Random Access Memory, minimum 400MB hard drive space, and a operating system is a 7.0 and the minimum hard drive size is 250MB, with the other characteristics the same as for IBM compatibles..

Because the World Wide Web is becoming so graphics-intensive, and because of the need to transfer large amounts of information between organizations, anything less than the standards we have listed will provide little more than frustration. And these are only workable minimums. The recommended minimum is a 486-66Mhz processor, 16MB Random Access Memory, and 850 MB hard drive. Table 1 shows what we found. But here are some cautions. Ten respondents listed “don’t know” for adequate to the task of accessing the Internet, that they have at least 14,400 bps modems. Of the NBOs that don’t have computers, many use the computers of others-their members’ private computers, or those of other their own offices. Twenty-seven NBOs also indicate they have an Internet service provider, but they lack important hardware and software to make Internet accounts are held by individuals rather than by the NBOs, since only 13 NBOs indicate budgeting for Internet accounts. Of the remaining Internet accounts held by NBOs, many are probably limited to only sending and receiving brief e-mail messages. Fifty NBOs say they have telecommunications software, though only 25 say they actually use the software, and it is probably only useful for brief e-mail communication. Even

TABLE 1 Internet Capacity of NBO Computers

- #1. Total NBOs replying 189**
- #2. Number of NBOs in #1 with computers: 134**
- #3. Number of NBOs in #2 with adequate operating systems: 100**
- #4. Number of NBOs in #3 with adequate processors: 89**
- #5. Number of NBOs in #4 with adequate processor speed: 68**
- #6. Number of NBOs in #5 with adequate RAM: 49**
- #7. Number of NBOs in #6 with adequate hard drives: 38**
- #8. Number of NBOs in #7 with fast enough modem: 16**
- #9. Number NBOs in #8 with telecommunications software: 11**
- #10. Number of NBOs in #9 with an Internet service provider: 3**

With these cautions, however, it is clear that few NBOs are able to access the Internet without hardware upgrades. More disturbingly, the smaller less stable NBOs that did not respond to the survey are even less likely to have adequate Internet access.

NBOs AND THE INTERNET-HOW MUCH SO FAR?

How much do NBOs know about what they need? What steps have they been taking to meet their own needs? We asked NBOs how much they had spent on their computer and Internet needs and what they planned to spend. Over the past four years only 73 NBOs indicated they had purchased computer hardware. Their expenditures average out to \$3,200 per organization—a figure inflated because of a few large expenditures of \$20,000 to establish community computing centers. Only 21 spent funds on computer technical assistance. And only 13 purchased Internet access (usually for BBS or e-mail service).

We also asked NBOs about their future computer and Internet budget plans. Only 50 had budgets for new hardware, and only 16 of those were NBOs that had not previously budgeted for hardware. Consequently, only 89 NBOs—less than half—can be expected to have adequate computer capacity through their own budgeting. The situation is similar for training expenditures. Thirty-seven NBOs indicate their future budgets hold funds for computer training, but only 21 of those had not budgeted for training in the

past. And while 40 NBOs have future budget plans that included Internet access expenditures, only 24 of those have not previously budgeted for Internet access.

There is another important dimension to the issue of NBO expenditures on computers. We are seeing the development of three groups—the haves, the have a little need mores, and the ones that, have not. And they can be distinguished at least partly by their budgets. For example, of the 72 organizations that neither budgeted for computers in the past nor the future, 57 of them have budgets of \$100,000 or less. Of the 28, organization, that spent money on hardware in the past, and plan to spend more in the future, only 7 have budgets of \$100,000 or less. There is a small group of NBOs, probably less than a quarter of the population that will be Internet active shortly, if they are not already. Another group is limping along, needing various combinations of training, education, Hardware, software, and technical support A third group has difficulty affording stamps and paper, bet alone computer, For them, the development of public access computing sites may be the best option.

WHAT DO NBOs WANT?

NBOs recognize the importance of the Internet and other advanced computer possibilities, as indicated b their expressed software needs and training needs. Figure 3 showed that the two most popular software needs are telecommunications software and GIS software. Likewise, training in telecommunications software also stands out as a need. Part of the problem of NBO Internet access is an education problem—for some NBOs, all we need to do is inform them of what they need and they can go get it. Others also need folks who can do the legwork. We have talked to a number of NBOs who each month says this is the month they will sign up for Internet access. But they do not have the time to do the research to make the smart decisions. They need people who can advise NBOs on computer needs and solutions, shop for them, fix the bugs and glitches, and slowly help them fend for themselves.

What NBOs really want is to be able to do their work better. We have been told by those directing other projects trying to “get NBOs on the Internet” that we must not let the technology drive the project. The purpose of helping NBOs get Internet access should not be based in the Internet’s current popularity, but because Internet access will help NBOs do their work better. In our discussions with Ohio NBOs, we have heard skepticism that learning how in use the Internet is really worth it. So in the next section we ask:

IS THE WEB WORTH IT?

Some of the most interesting survey data focuses on what information is most important to the organization and how accessible it is (see Figures1 and 2). Many of these information needs can be met through the Internet. Liberty Net of Philadelphia has the most expansive project in development. They established “Neighborhoods Online” in the summer of 1994(<http://libertynet.org/community/phila/natl.html>). The project includes a strategy for recruiting and training NBOs and other nonprofits to use the Internet, a WWW site to help groups access the information they are interested in, and a long range plan to link like-minded groups through e-mail (Buck, 1996). VICNET, the

community-based network serving the Australian state of Victoria, is also a model of providing service, access, and technical assistance to help community-based groups get and use Internet access (<http://www.vicet.net.au>).

Finding information about specific neighborhoods over the Internet is currently not efficient. There is no doubt that obtaining information about a specific neighborhood is best accomplished in that neighborhood. What is available on the Internet is census data. Census information and maps on a national state, city and tract level can be found at the U. S. Census site (<http://www.census.gov/>). Some cities are developing web pages that include information on zoning laws, garbage pick up, crime statistics and a few are so interactive people can electronically fill out forms concerning zoning violations or criminal activity. The city of Palo Alto has a parking page-everything from where to park to what the fines are for illegal parking. They also include information on alternative transportation, a list of phone numbers of city officials, and a searchable database of business information (<http://gatekeeper.city.palo-alto.ca.us:80/palo/city/>). Some cities have pages of very specific program information such as the homepage of HUD Homes Seattle (<http://www.towercom.com/sthud/>) which links to information on HUD homes, bidding procedures, and a list of available properties. Among Ohio cities, Cleveland's Neighborhood Link (<http://little.nhlink.net/nhlink/>) is the most advanced Web site of this type.

While gaining information about other NBO information needs some of that information is available on the Web as well, and is linked at the UUNN Web site (<http://313.183.70.50/DOCS/UUNN/UUNN.HTM>). Other NBOs can be found on Liberty Net, and the National Housing Institutes pages (<http://www.nhi.org>). The expanding number of "community networks," –allowing people and organizations to link together through the Internet-may also make it easier, and therefore more valuable, for NBOs to communicate with each other (Batteau, 1995; Benton Foundation, 1996; Morino Institute, 1995; Buck, 1996; Cavalini, 1996). Currently, NBOs have to locate each other through their own networks, and then have to telephone, often long distance.

All NBOs replied that information on relevant laws is important, but half stated they have difficulty accessing this information. Relevant federal laws are the easiest to access on the Internet. There are vast amounts of federal government sites on the WWW but the most useful for NBOs are Thomas and the HUD homepage. Thomas is a searchable database providing complete texts of House and Senate bills (<http://thomas.loc.gov>). An example of what HUD offers is its link to the Information on Empowerment Zones/Enterprise Communities, which includes an implementation guide, a map of EZ/EC communities and the regulations involved (<http://www.ezec.gov>). Most NBOs responded that pending legislation is important but access can be difficult. Full text of pending federal legislation can be accessed through Thomas and discussions of these bills can be found on Handsnet through their alerts and forums (<http://www.igc.ape.org/hansnet>).

Most NBOs in the survey replied that funding opportunities are important and that access to this information is difficult. The WWW has lists of foundations, some foundation sites and government sites sporting information on federal grants and programs. The HUS WWW site offers access to most of their programs including information on Community Development Block Grants. The National Telecommunications and Infrastructure Administration homepage

(<http://www.ntia.doc.gov>) offers a link to its funding opportunities. The UUNN web site also provides links to foundation and government funding Web sites.

NBOs also said that technical assistance information is important. While some NBOs have easy access to such information, others don't. Government technical assistance information can be found on HUD's (1995) Community Connections page (<http://www.teleport.com/~mrtom/comcon.htm>), through a program to help residents of HUD-housing access the Internet. One of the most useful WWW pages on this topic is the Contact Center Network's list of Organizations that Can Help Get You a Computer (<http://www.contact.Org/orgs/cmpr2.htm>). The Pratt Institute, famous for their work in community organizing and development, now maintains a Web page as well, with links to technical assistance (<http://www.pratt.edu/picced/index.htm>).

The benefits of using the Internet for direct contact with other NBOs should also not be overlooked. The UUNN recently established an Ohio NBO list-serve to help NBOs maintain contact with each other. There are also Internet "chat" programs that allow users to exchange information with each other and get replies immediately. Using the Internet, NBOs can engage in joint projects on a short timeline because one NBO can e-mail a draft grant proposal that will arrive at its destination in minutes rather than days and staff won't have to try to feed 50 pages through a fax machine. Likewise, they can copy grant guidelines right off the Internet, rather than waiting sometimes weeks for them to arrive in the mail.

BRINGING NBOs ON-LINE

While Internet use is expanding dramatically, we have seen little increase in on-line access in poor communities. Even with \$21.5 million given out from the Telecommunications and Information Infrastructure Assistance Program (<http://www.ntia.doc.gov/otiahome/tiap/tiap.htm>), a wide gap remains between who gets on the information superhighway and who is kept off. As a consequence, we make four recommendations:

1. Startup Costs Need Help: This is the most important issue facing any attempt to reduce the lack of NBO access to the Internet. The overall costs are not enormously high. Only \$50,000 in a single city can move 25 NBOs from no Internet access to Internet access. But for individual NBOs to come up with \$2,000 is difficult. Foundations can chip-in. Local corporations can chip-in. Service providers can chip-in. With the exception of on-line access, these are one-time costs and, if shopped for wisely, will require only modest future expenditures on hardware and software upgrades. It is also important to understand that, while NBOs without staff or offices need access to publicly available Internet-ready computers, NBOs with staff and offices need in-house Internet access. In many cases, staffed NBOs already provide computer capacity to unstaffed NBOs. And if staffed NBOs need to get in their cars to go to a public access site, it is not on the telephone, or driving to the library to look up grants. Public access sites are only an option for those NBOs with no office to house a computer.

2. Polled Training and Technical Assistance Need to Be Organized and Must Be Convenient: As we talked with NBO members who have tied the Internet, much of their frustration came from learning the software and coping with the instability of the connections. They have neither the time nor the interest to mess around "tweaking their

system” Thus, each city needs a pool of technical assistance to help NBOs as they become accussions, on NBO schedules, need to be offered. Our research showed no strong differences across the cities in their preferences for training, so it might be possible to offer multi-city training sessions. However, at a Cincinnati follow-up core group meeting, NBOs emphasized that the biggest obstacles to gaining Internet access was finding the time to get training. Thus, local training sessions might better meet NBO needs. Finally, central locations need to manage Web sites such as the UUNN site, maintain list-serves, and continually update the Web information relevant to currently negotiating with university offices and local Internet access providers to provide some of these services.

3. Internet Access Needs to Be Uniformly Available: We do not know what the future will hold. It is possible that Internet access costs will be comparable to cable TV costs for the time being. It is also possible that, as the competition produced by deregulation of the telecommunications industry slows down, Internet access costs will rise, especially as cities move to high-speed cable rather than dial-up access. Those of us concerned with redressing the inequality of Internet access need to work now to help to contain the costs of Internet access and Web site construction and help NBOs meet those costs. Fully functioning and accessible freenets may be a thin of the past. What freenets still exist is mostly restricted from providing graphical web access, and is limited to a difficult to use text-only browser. There are many organizations, such as the Benton Foundation (1996b), working on this issue, but we are still a long ways from a policy to insure the principle of universal service is followed in providing Internet access. One of our reasons for building a network, then, is to use it to help promote universal access.

4. Internet Communication Is Not a Substitute for Face-to-Face Communication: Of this we could not be more certain. NBOs are about building local communities. Whatever we do, we need to recognize that the purpose is to strengthen local communities, not replace them with “cyber hoods.” We originally planned to hold our conference reporting the research results by using video-linked simultaneous local conferences in each site. But our NBOs, who emphasize building face-to-face relationships in neighborhoods, balked, and we ended up creating a central conference where NBO members could interact fact to face. Our project this current year is focused on face-to-face meetings in each city to link the UUNN to, (or in some cases, build from scratch), local intranets or other forms of citywide networks. We have found that there is too little infrastructure available to support much traffic on the UUNN listserv or web site. Our belief is that by building local relationships, we can create more local support for a statewide network.

UUNN NEXT STEPS

With modest funding for this year, the UUNN is attempting to meet some of the needs identified in this research. We will be building a resource directory in each city to identify software and hardware source, Internet service providers, technical assistance providers, and other computer and Internet resources. In addition, we will be working to help more NBOs get on-line, and use the UUNN list server and web site, providing multiple training sessions. Once we have a larger block of NBOs using these services,

we will conduct a participatory evaluation to determine how to best organize the web site and list-server to meet NBO needs most efficiently.

Finally, as mentioned above, we are connection with efforts to build or maintain local community networks in each city. In cities such as Cleveland, with a string community network, this is mostly a matter of recruiting more NBOs to use local network resources. In cities such as Toledo, our work starts from the beginning, as no community network exists. While this is hard, it is also exciting, as we can build a local community network that has the issues universal access, sensitivity to diverse community needs, the principle of community control, and resources for community organizing and community development, built-in. It is also through strong local networks that we will be better able to meet the software, hardware, training, and technical assistance needs of NBOs and other users. A strong local community network can meet those needs through networks, linking many more NBOs than we have been able to so far.

AUTHOR NOTE

The Urban university and Neighborhood Network (UUNN) is a network of university-based researchers and neighborhood-based organizations in Akron, Cincinnati, Cleveland, Columbus, Dayton, Toledo and Youngstown. The UUNN is coordinated through the University of Toledo Urban Affairs Center and was funded by a \$69,800 grant from the State of Ohio Urban University Program for 1995-96 and a \$28,160 grant for 1996-97. This paper is a shortened version of the UUNN research report of the same title available at <http://313.183.70.50/docs/uunn/uunn.ht>.

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