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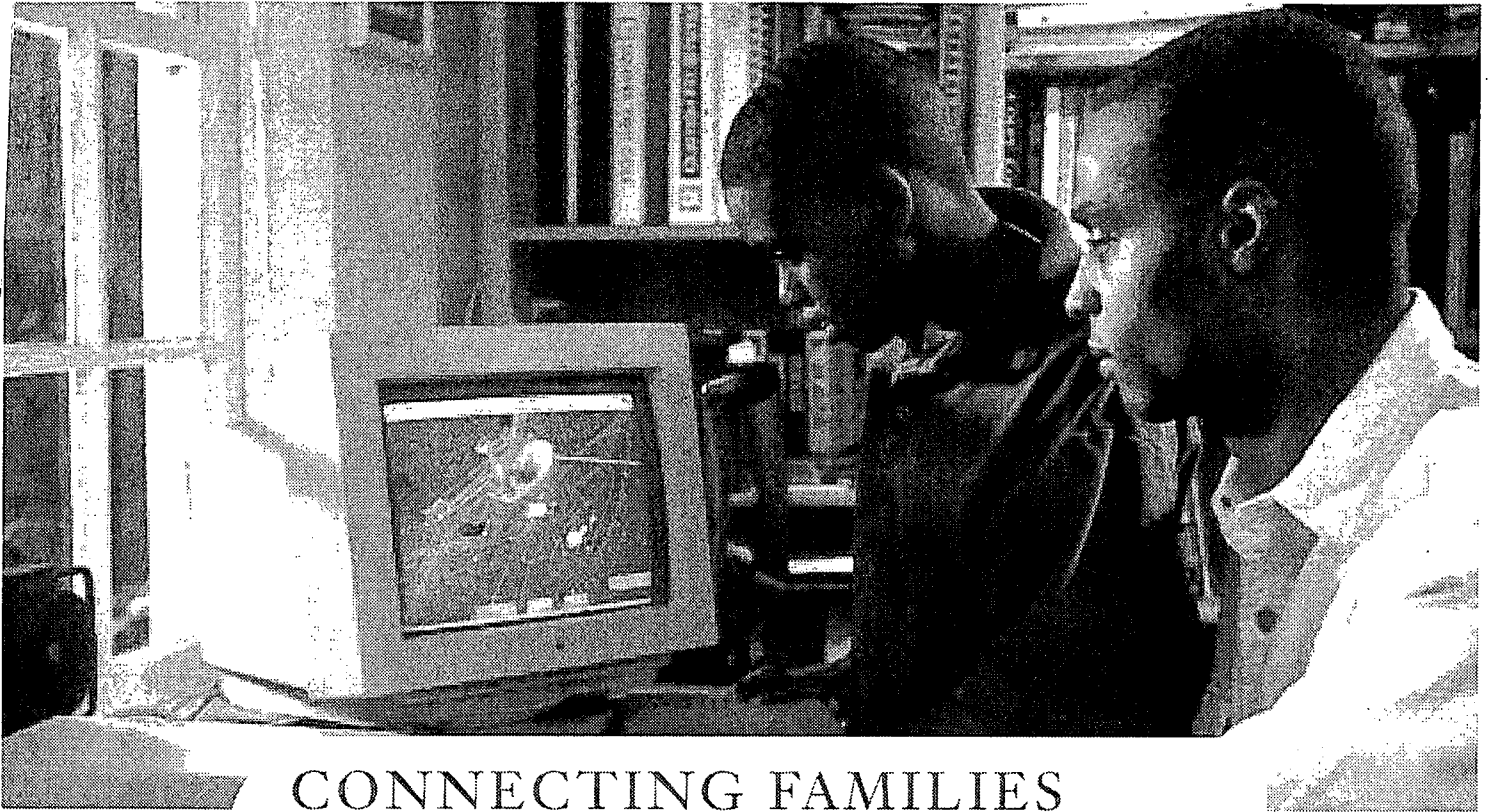
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ABSTRACT

This guide presents ideas about how communities can help low-income residents gain access to and learn how to use computers and the Internet. It discusses the efforts of Making Connections, a longitudinal project designed to strengthen families and neighborhoods. The introduction explains that residents in neighborhoods nationwide are learning to take advantage of the many opportunities available through technology. Projects in low income neighborhoods are helping residents access computers and the Internet. The next section, "Potential Requests, Opportunities, and Challenges," gives information about getting started, finding the resources, and pursuing strategies that might be useful. The third section, "Promising Approaches and Resources," helps Making Connections sites get started, describing five program types or strategies: community technology, housing-based computer learning centers, school-based extended day programs, community networks, and community programs and model partnerships. The last section, "Resources: People, Places, and Materials," includes lists of national technical assistance providers and other resource materials and websites. There is also a listing of community organizations that already sponsor technology projects in Making Connections neighborhoods. (SM)

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CONNECTING FAMILIES

to Computers and On-Line Networks

A GUIDE TO KEY IDEAS, EFFECTIVE APPROACHES,
AND TECHNICAL ASSISTANCE RESOURCES FOR
MAKING CONNECTIONS CITIES AND SITE TEAMS

U.S. DEPARTMENT OF EDUCATION
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part of a series from the Technical Assistance/Resource Center of The Annie E. Casey Foundation

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A list of Technical Assistance/Resource Center Resource Guides appears on the inside back cover.

The Annie E. Casey Foundation

The Annie E. Casey Foundation is a private charitable organization dedicated to helping build better futures for vulnerable children and families in the United States. It was established in 1948 by Jim Casey, one of the founders of United Parcel Service, and his siblings, who named the foundation in honor of their mother.

Headquartered in Baltimore, the Foundation is the largest private foundation in the nation dedicated solely to the needs of vulnerable children and families, with assets of more than \$3 billion. The Foundation's grants are intended to help states, cities, and neighborhoods improve the life chances of the millions of American children at risk of poor educational, economic, social, and health outcomes. For more information, visit the Foundation's website at www.aecf.org.

contents

Preface to Family Strengthening Resource Guides *P. 2*

Executive Summary *P. 6*

Introduction *P. 8*

Potential Requests, Opportunities, and Challenges *P. 11*

A. What Issues Might Neighborhood Residents and Leaders Raise About
Community Technology? *P. 11*

B. What Are the Trends and Opportunities on Which Sites Can Build? *P. 11*

C. What Challenges Might Sites Face? *P. 13*

Promising Approaches and Resources *P. 15*

A. Community Technology Centers *P. 15*

B. Housing-Based Computer Learning Centers *P. 16*

C. School-Based Extended-Day Programs *P. 18*

D. Community Networks *P. 19*

E. Community Programs and Model Partnerships *P. 20*

Resources: People, Places, and Materials *P. 23*

A. National Organizations *P. 23*

B. Materials and Websites *P. 24*

C. Technology Projects in *Making Connections* Cities *P.28*

preface to family strengthening resource guides

Children do well when their families do well, and families do better when they live in supportive neighborhoods.

This simple premise underlies *Making Connections*, the centerpiece of a 10- to 15-year commitment by the Annie E. Casey Foundation to improving the life chances of vulnerable children by helping to strengthen their families and neighborhoods. The Foundation is working in 22 American cities to promote neighborhood-scale programs, policies, and activities that contribute to stable, capable families.

Making Connections seeks to help families raise healthy, confident, and successful children by tapping the skills, strengths, leadership, and resilience that exist in even the toughest neighborhoods. The initiative is founded on the belief that families and their children can succeed if the people who live, work, and hold positions of influence in distressed neighborhoods make family success a priority—and if there are deliberate and sustained efforts within the broader community and at the state level not only to connect isolated families to essential resources, opportunities, and supports, but also to improve the material conditions of the neighborhood.

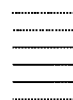
The Foundation is dedicated to helping selected communities engage residents, civic groups, public and private sector leadership, and faith-based organizations in efforts to transform the toughest neighborhoods into family-supportive environments. *Making Connections* seeks to enable residents in these neighborhoods to live, work, play, earn decent wages, and interact with family, friends, neighbors, and social institutions in a safe, congenial, and enriching environment.

In order to improve the health, safety, educational success, and overall well-being of children,

Making Connections is a long-term campaign aimed at helping selected cities build alliances and mobilize constituencies at the neighborhood level.

Making Connections has identified three kinds of connections essential to strengthening families:

- + **Economic opportunities** that enable parents to secure adequate incomes and accumulate savings, thus assuring their families the basic necessities of food, clothing, shelter, and health care. To meet this need, communities must address job development, employment training, wage supplements, and asset-building strategies—all of which help ensure predictable incomes, which in turn bolster healthy child development.
- + **Social networks** in the community, including friends, neighbors, relatives, mentors, community organizations, and faith-based institutions that provide neighbor-to-neighbor support and help family members feel more confident and less isolated.
- + **Services and supports**, both formal and informal, public and private, which provide preventive as



MAKING CONNECTIONS CITIES

Atlanta	Milwaukee
Baltimore	New Orleans
Boston	Oakland
Camden	Philadelphia
Denver	Providence
Des Moines	San Antonio
Detroit	San Diego
Hartford	Savannah
Indianapolis	Seattle
Louisville	St. Louis
Miami	Washington, D.C.

well as ongoing assistance, and are accessible, affordable, neighborhood based, family centered, and culturally appropriate. These might include high-quality schools, health care, housing assistance, and affordable child care.

How will we know when Making Connections goals have been achieved?

Making Connections will have succeeded in a city when community leaders and residents have built a local movement on behalf of families that has the power and momentum to accomplish the following:

- + Build on existing efforts and spur neighborhood-scale, family strengthening strategies that reduce family isolation by increasing their connections to critical economic opportunities, strong social networks, and accessible supports and services.
- + Use these neighborhood-scale initiatives to rethink, revamp, and redirect policies, practices, and resources on a citywide scale to improve the odds that all families succeed.

As this movement grows, it will enable each city to know it is succeeding in a number of other ways:

- + When parents have the means, confidence, and competence to provide for their families economically, physically, and emotionally;
- + When residents have people to talk to and places to go for help, support, and camaraderie;
- + When families feel safe in their homes and in their neighborhoods;
- + When children are healthy, succeed in school, and go on to college or a job after high school;
- + When communities offer the resources families need to pass on a legacy of literacy and opportunity to their children.

What do we mean by "family strengthening"?

Family strengthening policies, practices, and activities recognize the family as the fundamental influence in children's lives. These policies and practices both reinforce parental roles and messages and reflect, represent, and accommodate families' interests. Family strengthening means giving parents the necessary opportunities, relationships, networks, and supports to raise their children successfully, which includes involving parents as decision-makers in how their communities meet family needs.

A family's major responsibility is to provide an optimal environment for the care and healthy development of its members, particularly its children. Although basic physical needs—housing, food, clothing, safety, and health—are essential, children also need a warm emotional climate, a stimulating intellectual environment, and reliable adult relationships to thrive.

Threats to a family's ability to manage its responsibilities come from many sources: externally generated crises, such as a job or housing loss, or internal crises, such as child abuse or estrangement among family members. Unexpected events, such as the birth of a child with a disability or a teen's substance abuse problems, or more common events, like new jobs, marriages, deaths, and household moves, precipitate potentially destabilizing changes. The family's ongoing stability hinges on its ability to sustain itself through these disruptions. To help families cope effectively with crises and normal life events, communities need a variety of resources, including adequate and accessible services for children at all stages of their development, effective supportive services for families, and a critical mass of healthy families who can effectively support their neighbors.

Family strengthening policies and practices consider the whole family, not just individual family members. Often, agency protocols and programs

create tensions inadvertently when their focus excludes family needs. A striking example is a well-intentioned nutrition program arranged to ensure that homeless children were fed breakfast, lunch, and dinner at school. The children's parents and other siblings had no source of food, however, and the program participants had no opportunity to share meals with the rest of their families. Once the program leaders recognized the problem, parents and siblings were included in the school mealtimes, and the program designers learned to reconsider their strategies. Similarly, many welfare-to-work programs report difficulties in job retention because of family stresses—stresses often resulting from the jobs themselves. When a family member finds work, family rituals, logistical patterns, roles, and responsibilities change. More successful programs consider these disruptions ahead of time and develop ways to help the family cope.

What do we mean by "strengthening neighborhoods"?

Families must be helped to thrive within the context of their neighborhoods and broader communities. Job development, for example, should be coordinated with specific local or regional businesses, and community economic development should build on the resources of each unique neighborhood. Connecting families to economic opportunities can have a ripple effect: Just living in a neighborhood where a substantial number of families work can reinforce positive expectations for the children in the neighborhood.

Making Connections recognizes that the informal social networks that are most important to people (their friends, neighbors, faith communities, and clubs) almost always exist at the neighborhood level. Time and time again, these natural helping networks prove most important to families' abilities to raise their children successfully. One component of strengthening neighborhoods is thus to invest in the

social capital provided by neighborhood-based networks. At the same time, *Making Connections* seeks to widen the networks that families have at their disposal, thereby broadening their aspirations, attitudes, and opportunities. Linking families to broader networks both within and outside their own neighborhoods promises to open up new possibilities for children and parents alike.

Finally, strengthening neighborhoods means placing formal public services in neighborhoods, and making them comfortable rather than intimidating for families. This requires redefining the jobs of public workers so that professionals from several separate mainline systems—as well as natural helpers or informal caregivers—work together in teams and are deployed to specific neighborhoods to take the necessary steps to help families succeed.

The Technical Assistance/Resource Center

The Foundation's Technical Assistance/Resource Center (TARC) seeks to connect people in the 22 cities to powerful ideas, skillful people and organizations, examples of what works in other communities, and opportunities to develop leadership skills in their own neighborhoods. It provides assistance to the 22 *Making Connections* cities on a range of topics, from building alliances that lead to stronger families in healthier, more stable communities, to diverse strategies that community leaders may pursue in terms of jobs, housing, safety, schools, and health care. TARC responds to the sites' priorities through a "help desk" approach, which seeks to meet sites' requests for assistance, and "peer consultation," where colleagues who have successfully addressed a particular problem help their peers in other communities to frame and solve a similar issue. In this way, *Making Connections* cities can capitalize on the practical knowledge that emerges from on-the-ground innovators.

One component of the Foundation's technical assistance strategy is a set of Resource Guides, including this one. The Resource Guides articulate the Foundation's perspective about issues pertaining to *Making Connections* sites, as well as summarize trends in the field, highlight effective examples, and point to people, organizations, and materials that can provide additional help. The Resource Guides are intended first for Foundation staff, in order to create a common fund of knowledge across a broad range of issues. Second, the guides are intended for residents and other leaders in *Making Connections* cities who may want to learn more about specific subjects.

The precise number of Resource Guides will fluctuate as demand changes, but approximately 12-15 guides will be produced during the year 2000 (see the inside back cover for a list). All guides will address topics aimed at both supporting individual families and strengthening neighborhoods. The guides fall into four categories: (1) Economic Opportunities for Families, (2) Enhancing Social Networks, (3) Building High-Quality Services and Supports, and (4) Techniques for Advancing a Family Strengthening Agenda in Neighborhoods.

The guides in the first three categories address substantive areas in which activities can directly lead to better outcomes for children and families as well as strengthen neighborhoods. The first Economic Opportunity Resource Guide, on jobs, for example, provides information about how to connect low-income residents to regional and local labor markets, allowing families to provide for their basic necessities and contributing to family stability. Simultaneously, successful jobs initiatives fortify the neighborhoods in which they operate, making them more attractive places to live and providing strong incentives for younger residents to participate in the labor force.

Likewise, the Resource Guides in the second and third categories were chosen because they affect both individual families and their neighborhoods. For instance, the guide on housing is intended to help communities provide affordable housing to low-income families, which in turn leads to enhanced housing stock and more desirable neighborhoods. The guide on child care seeks to help communities develop plans for increasing the supply of affordable, quality child care—especially the notoriously hard-to-find care for infants and school-age children, and care during nontraditional work hours. Achieving this goal not only would improve the developmental preparation of young children, but it also would help stabilize parental employment, enhance the viability of neighborhood enterprises, and promote safer, better-connected communities.

The guides in the last category address techniques for advancing neighborhood-based family strengthening work, such as how to develop a communications strategy and how to use data and maintain accountability for specific outcomes.

Additional guides may be developed as new requests for assistance surface from the sites. We view these guides not as an end in themselves, but as a first step in posing and answering some of the most difficult questions we face about how to help families in the toughest neighborhoods. Toward this end, we welcome readers' comments and thoughts on any of the subjects included in these guides.

Douglas W. Nelson
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executive summary

While many people in mainstream America are learning to use new information and communications technologies; those with low incomes or less education or in minority groups are being left behind. Because they are less likely to own computers or to have access to on-line networks, people in low-income neighborhoods are at a disadvantage when it comes to access to timely information, economic advancement, or even staying connected with a broader community. This last issue is especially important for residents of isolated, disenfranchised neighborhoods. This Resource Guide is for people in *Making Connections* sites and for Foundation site teams who might be interested in learning how to help neighborhood residents get involved with computers and on-line networks. It provides a brief description of some ideas and approaches that sites can use to “get wired.”

The **Introduction** explains that residents in neighborhoods all across America are learning to take advantage of the many opportunities available through technology. In low-income neighborhoods, community technology centers are springing up in locations that are convenient to residents, such as schools, malls, libraries, and public-housing complexes. Those projects help strengthen families by engaging them in neighborhood activities. A neighborhood home page or database can help families to exchange services, connect residents to jobs, give access to e-commerce, and strengthen education through computer labs and interactive learning software. Knowing how to use the Internet can help families secure information about a range of family needs and interests including health, education, and recreation.

People in *Making Connections* sites will have questions about how to get started with technology or how to improve what they already have. This guide tries to anticipate some of the questions and concerns of neighbors and other stakeholders.

Potential Requests, Opportunities, and Challenges gives information about getting started, finding the resources, and pursuing the strategies that might be useful. Opportunities are everywhere. With the cost of computer equipment falling—and with free equipment and e-mail accounts—neighborhood residents are beginning to realize that computers and technology can be theirs to use. Communities also are seeing the myriad of ways that computer technology can enhance the day-to-day life of residents—by participating in GED programs, getting help with English language skills, or even creating a neighborhood newsletter.

It's never easy. Bringing technology to a neighborhood, like any other significant effort, takes perseverance, resources, and neighborhood “ownership.” The time and effort required for planning, system installation, building partnerships, and sustaining user-friendly training are substantial. Fears about technology and how to use it can hamper efforts to help neighborhood residents get on line or use computers.

Promising Approaches and Resources can help *Making Connections* sites get started. Five program types or strategies are described:

A. Community Technology Centers are places where people can go to learn about and put computers to personal and professional use and gain access to the Internet.

B. Housing-Based Computer Learning Centers are already in operation in some places as part of the U.S. Department of Housing and Urban Development (HUD) Neighborhood Network, whose mission is “to create vibrant communities that foster economic opportunity and encourage life-long learning.”

C. School-Based Extended-Day Programs operate in many communities, and many of them offer computer use and instruction. In these programs, schools are open before and after classes to provide education and recreation in a safe, drug-free, supervised environment. Some of the extended-day programs allow adult and family members to use computer equipment too.

D. Community Networks are low-cost, locally managed on-line information networks sponsored by nonprofit organizations. Like the technology centers, many of those programs provide public access to computers and offer affordable Internet access and website hosting.

E. Community Programs and Model Partnerships between communities and various institutions and organizations exist in many neighborhoods. The partnerships are for the purposes of launching and sustaining community technology projects. They often involve public schools, libraries, the faith community, nonprofit organizations, and colleges and universities.

Resources: People, Places, and Materials includes lists of national technical assistance providers and other resource materials and websites. There is also a listing of community organizations that already sponsor technology projects in *Making Connections* neighborhoods.

introduction

Why is using computers and on-line networks important to Making Connections sites?

How can access to technology help build stronger families, strengthen neighborhood connections and institutions, and lead to lasting and sustainable community change?

From palm-sized computers to the World Wide Web, our society is being transformed by information technology. The Department of Labor reports that almost 50 percent of all workers use computers on the job (double the rate of a decade ago), and those who do, earn 43 percent more than other workers. The Office of Management and Budget has estimated that, within two years, 75 percent of all transactions between individuals and the government will take place electronically, including delivery of food stamps, Social Security benefits, and Medicaid information.¹

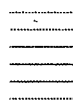
While mainstream Americans are learning to use this technology, people with low incomes, less education, and those who are in minority groups are being left behind. They are less likely to own computers or to have access to on-line networks. Lower income people are less likely to have friends and relatives with computer skills, too, because their education and work experiences are less likely to include exposure to computers. Without friends or relatives who are knowledgeable about computer technology (from work, school, or home use), poor people cannot rely on their informal social networks to help them sort out decisions about whether or which computer to buy, which on-line service is best, and what to do with those resources once they have them. And because fewer of their peers are on line, the perceived benefits of “getting wired” are reduced for low-income residents, making their technological isolation a self-perpetuating cycle.

¹ *Losing Ground Bit by Bit: Low-Income Communities in the Information Age*. Washington, D.C.: Benton Foundation, 1998. Available on the Benton Foundation website, www.benton.org/Library/Low-Income, or by calling 877-2-BENTON (877-223-6866).

Many communities are recognizing that, as computer technologies become embedded in our society, residents who cannot use them easily will experience new barriers to full participation in economic and social life. Those communities are trying to provide hands-on, active support for new users of computer technology. Public access sites and affordable computer ownership programs are one strategy. Another is the community technology center (CTC) where people come to learn about computers; gain access to the Internet or other on-line services; and use computers, printers, and other equipment to meet their personal and work needs. Such programs help residents gain access to important information, advance economically, and stay connected with their broader community—something that is especially important in isolated, disenfranchised neighborhoods.

Examples of successful public-access computer centers can already be found throughout the country—in housing developments, community-based organizations, churches and other faith-based locations, and many other venues. Connecting low-income residents to computers and on-line networks can help accomplish specific goals in a neighborhood such as connecting residents to up-to-date job listings, cutting-edge medical technologies, government and community services, and educational and reference materials. But community leaders need to think carefully about what they want to use technology for and how computers can be used to benefit their neighborhoods. Access to computers is just a means to an end, not an end in itself.

This guide presents ideas about how communities can help low-income residents gain access to and learn how to use computers and the Internet. There are, of course, many other uses of technology that are not covered here. For example, computers can be used to evaluate outcomes through the development of data warehouses, to diagnose community strengths and problems through geographic



guiding PRINCIPLES of

COMMUNITY TECHNOLOGY programs

ACCESS to computers and on-line networks should be convenient, welcoming, and affordable for low-income residents. Hardware and software should be up-to-date.

SOFTWARE and on-line information that is age-appropriate and culturally sensitive should be available to support families. This might include training or tutorials for common computer applications or access to CD-ROMs or websites. For children and youth, it might include games and tutorials that reinforce academic skills or that allow them to create art, music, or writing. In a Latino neighborhood, Spanish-language websites and software should be available, as should materials that support learning English.

TRAINING on how to use computers and on-line networks should be available. Content should be appropriate and of high quality.

USAGE POLICIES and expectations should be clear to potential users.

PROGRAMS for access and training should support the growth of formal and informal connections among community members. More experienced users might mentor new users; on-line resources might be identified that can help communities solve specific problems, such as high teenage pregnancy rates; or the community might create a neighborhood website.

ACCESSIBILITY for people with disabilities should be included in technology center planning, and facilities should be made physically accessible so that no one is excluded.

information systems, and to monitor client activity through client-tracking systems. Such technology programs also could be important for *Making Connections* communities, but the focus of this guide is on linking residents directly to computers and on-line networks.

How can community technology strategies help residents in *Making Connections* sites?

Community technology strategies that teach residents how to use computers and on-line networks, and that make the technology available to them, are useful in at least six ways:

- + They support the capacity of community stakeholders to produce and use information, a primary goal of *Making Connections*. Residents of *Making Connections* neighborhoods will benefit from being able to share ideas, tools, and

resources rapidly and conveniently. They will be able to establish a voice and a presence—as information producers, not merely as consumers—within this new and powerful communications medium.

- + Learning to use computers and on-line networks can enhance the employment prospects and educational opportunities of neighborhood residents. Residents of poor neighborhoods want to narrow the digital gap so that they and their children can compete successfully in the modern economy, whose growth is driven by computer and communications technology. Parents and older teens can use the Internet to search for information about jobs and careers, using on-line want ads, career information sites, and education sites. Many CTCs provide computer equipment and software tools that help users to prepare and

print resumes and offer access to useful “how to interview” material.

- + Fostering access to and use of computers promotes social and political equity by reducing the isolation of low-income residents. Information *is* power. Basic computer skills and access are becoming important prerequisites for civic action. Campaigns for neighborhood equity—such as those that use electronic data on lending practices (in Chicago) or housing code violations (in Los Angeles)—depend on the ability of residents to find and analyze relevant information on line. Residents can gain immediate access to critical information, such as census data or the status of pending legislation in Congress. With computer skills, residents can communicate with others in their neighborhood, extended family, work group, or government agencies. In inner city Newark, New Jersey, neighbors created an on-line mailing to discuss the problem of violence in the community. Their discussions led to a meeting with police and an improved plan for monitoring neighborhood security.
- + Computer skills help residents to publish personal web pages for extended family or for neighborhood groups. Creating a record of personal or community accomplishments on a website can have profound effects on pride and identity, and it can teach useful skills and generate income for the community. In some communities, residents have created websites that give virtual neighborhood tours or document particular successes.
- + Helping families gain access to and use computers and the Internet allows them to obtain information about their family’s needs and interests much more easily. Family members can search the Internet for medical information so they know what to do in case of illness or an accident. They can find information about schools or about any topic they might be studying in school.

They can learn about a range of recreation activities available in their community.

- + Community technology strategies can help support strong parenting and family interaction.

Knowing how to find, use, and create on-line information; being able to communicate quickly using electronic mail; and having the skills that come with mastery of common software applications (such as word processing and spreadsheets) can help build stronger, more self-reliant families and create new bonds within communities. Specific examples of this include the following:

- + On-line parent support groups can allow parents to log on to message boards to exchange ideas about parenting, schooling, violence prevention, and health.
- + Children and young people can establish relationships with caring adults through programs such as SeniorNet (a national training and support organization for computer-using seniors, at www.seniornet.org) and the International Telementoring Center (which supports on-line work-related mentoring, www.telementor.org).
- + Homework assistance for students can be made available in a variety of formats, including websites, mailing lists, and chat rooms.
- + Acquisition of language skills or literacy through ESL (English as a Second Language) or other literacy programs is promoted by use of multimedia computers (computers that have sound and video capability) to reinforce language learning. And e-mail and chat sessions can be offered to help people practice writing in a new language.

In all of these ways, helping residents in *Making Connections* neighborhoods gain access to and learn how to use computers will strengthen their family life and improve their connections within the broader community as well as the world.

potential requests, opportunities, and challenges

A. WHAT ISSUES MIGHT NEIGHBORHOOD RESIDENTS AND LEADERS RAISE ABOUT COMMUNITY TECHNOLOGY?

As communities begin to understand the benefits of establishing community technology strategies in low-income neighborhoods, they are likely to ask site teams questions about how such programs are developed and operate. Among the most likely requests from neighborhood residents and leaders might be the following:

- + **How can we use technology to help us create a better neighborhood?** Residents might want to use technology to improve job and educational opportunities, to make their neighborhoods safer, or simply to create some connectedness within the community. There are many ways technology can improve the quality of life in *Making Connections* neighborhoods, as shown in the box below.
- + **How can our neighborhood set up a CTC? Where should it be located?** Site teams might want to

refer community leaders to the CTCNet Center Start-Up Manual listed in the Resources section of this guide. It includes chapters on mapping community resources, determining program focus, selecting software, budgeting, and funding.

B. WHAT ARE THE TRENDS AND OPPORTUNITIES ON WHICH SITES CAN BUILD?

Making Connections sites will have opportunities to improve their technology capacity. Currently, social and economic conditions make using computers and networks especially attractive and important:

- + **Grass-roots demand for computer access in low-income communities is already strong.** There is a connection between computer skill and career and educational achievement. People are excited, motivated, and ready to learn. Computers appeal especially to young people.
- + **The cost of computer equipment is falling fast.** Complete systems (monitor, keyboard, and processor) cost as little as \$500. Computer leases

WHY use COMPUTERS in LOW-INCOME neighborhoods?

HELP OVERCOME SOCIAL EXCLUSION AND ISOLATION by engaging families in a neighborhood home page, for example, or a database through which families can exchange services.

IMPROVE ECONOMIC CONDITIONS by connecting residents to jobs through access to e-commerce, on-line employment searches, or a job skills bank. Computer access can also offer opportunities for economic development by enabling residents to sell products and services on line.

SUPPORT LIFELONG LEARNING through computer labs, interactive learning, or Internet access.

PROVIDE IMPORTANT HEALTH-RELATED INFORMATION, such as wellness and health service delivery information, through the Internet.

ENHANCE THE CULTURAL VITALITY of a neighborhood by offering residents a place to develop electronic community art and achieve individual self-expression.

also are becoming very affordable (some as low as \$25 per month). Some businesses and organizations are willing to donate used equipment to CTCs and nonprofit organizations—although this can create more problems than it solves if the equipment lacks sufficient memory or disk capacity to run current versions of software. Increasing competition among Internet service providers and within the telecommunications industry also is driving down the cost of network access. Free e-mail accounts are available from several companies. More information is listed in the Resources section.

- + **As public perception of the need for equitable access to computing and on-line services grows, funding is beginning to increase.** The federal government underwrites such ventures as the

Technology Opportunity Program (TOP; formerly the Telecommunications and Information Infrastructure Assistance Program) of the Department of Commerce, Neighborhood Networks of the Department of Housing and Urban Development, and Community Technology Centers of the Department of Education—and funding is likely to grow. In addition, foundations are increasingly supporting efforts to make technology available to low-income residents.

- + **Many communities find that the prospect of creating a community computer center or network unites organizations and groups that might not have cooperated in the past.** The excitement created when people come together to do something new and positive energizes groups to find solutions. The complexity and expense of setting



SCANNING THE FIELD: what to ASK, who can ANSWER,
what kind of information to COLLECT?

Here are some questions for site teams who want to identify the people, organizations, and other stakeholders who already champion effective community technology strategies and who could be valued partners for advancing the agendas of *Making Connections* neighborhoods:

WHAT COMPUTER EDUCATION PROGRAMS have already been tried in this community, and what was learned from the experience?

CAN THE COMMUNITY CREATE an inclusive planning process that is based on the residents' own sense of what they would like to be able to do with computer technology?

DOES THE COMMUNITY HAVE ACCESS to the technical expertise needed to carry out the project?

HOW CAN THE COMMUNITY CREATE LINKAGES among its organizations and institutions that might be able to provide funding, other resources, and expertise to an initiative? These could include colleges, universities, faith-based groups, libraries, computer user groups, businesses, schools, civic associations, fraternal groups, foundations, medical centers, and the United Way.

Site teams might want to involve a range of stakeholders: youth and parents, elected officials, teachers and school administrators, local grant-makers, library staff, and staff from local media centers or other organizations that provide—or could provide—technology opportunities to residents.

and the

SURVEY RESULTS said

The results from a survey of 817 respondents, ages 13 to 91, at 44 community-based technology centers, indicate some of the positive outcomes from Community Technology Centers (CTCs). The locations are different, but all provide access to computers and related technologies, and typically all are available to underserved or otherwise disadvantaged persons:

- + CTCs offer a range of opportunities to use computers and other technologies in classes as well as in self-directed activities.
- + Many respondents acquired or improved English language skills, got tutoring and homework help, or participated in GED programs. They also used computers to get information from the Internet, send and receive e-mail, or set up web pages.
- + A comfortable, supportive atmosphere was ranked as the top reason for coming to a technology center. Also mentioned was the ability to use e-mail and obtain information about local events and local government. Other reasons were the resulting increase in user self-confidence and the reduction in fear or anxiety about using computers.

SOURCE: Laura Breeden and Associates, Palo Alto, California.

up computer projects also motivates people to share resources and to “leap frog” turf boundaries.

- + **Telecommunications industry deregulation has created new opportunities.** Local cable television franchises, for example, which obtain licenses from the public entities where they operate, are offering high-speed Internet access in some areas. Telephone companies, which are regulated by state and federal agencies, are installing DSL (digital subscriber line) service for high-speed connections. Community leaders and *Making Connections* site teams should be aware of these opportunities. They will need to advocate for equal treatment to ensure their low-income neighborhoods are not bypassed when technology infrastructure issues are considered at the city level.
- + **Communities are creating new opportunities for residents to interact on line.** The spread of Internet access is being accompanied by a proliferation of new community spaces on line. Some

of these are commercial spaces such as on-line auctions that allow consumers to sell or trade goods and services. Others are meeting spaces where individuals interact around a particular interest or topic—from chat rooms for hobbyists and on-line current events discussions, to support groups for people facing similar challenges. A community center in Arlington, Virginia, for example, provides Internet access to immigrants from many parts of the world, including South and Central America, Morocco, Bangladesh, and Albania, so they can send e-mail back to their home countries, and they also can participate in chat rooms where discussion is conducted in their native language.

C. WHAT CHALLENGES MIGHT SITES FACE?

There are several pitfalls that site teams should be aware of as they work with *Making Connections* sites to achieve technology access, equity, and capacity.

what information is provided
on line that can help

STRENGTHEN families?

- + Job and career counseling
- + Adult literacy program
- + Activities for senior citizens
- + Health conditions and treatment
- + Immigration services
- + E-mail and other communication services
- + New-citizen programs
- + Children's educational programs
- + Homework help

14

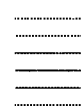
- + **Common to many projects is an uncritical faith that technology can "fix it."** No matter what "it" is. This leads people to focus on hardware and connectivity to the exclusion of content and outcomes. When planning any technology project, site teams should ask, "Technology for what purpose?" and link specific family and neighborhood outcomes to computer development activities.
- + **It takes money to connect residents to computers and teach people how to use them.** In-kind resources and access to technical expertise also are part of the equation. Technical support should be available to clients at all times so they do not become frustrated and give up trying to learn how to use computers.
- + **Even those who are experienced with technology tend to underestimate the time and effort required.** All aspects of technology program planning, system installation, building partnerships, and user training require resources, as independent evaluations of CTCNet and of the Commerce Department's TOP program have documented.^{2,3} Community leaders should build

extra time into their work schedules when developing neighborhood projects.

- + **Fears about technology are widespread and sometimes warranted.** For example, the cost and complexity of using computers and networks perplex some community leaders who are concerned that resources will be drawn away from other, perhaps more effective, programs. Issues such as privacy protection, access to pornography, and abuse of public computer systems are real and must be dealt with in any community effort. Some websites that can help residents deal with these issues are listed in the Resources section.
- + **Sites should avoid launching projects until needs assessments can weigh alternative options.** Without needs assessments and structured planning phases, many communities have developed technology projects that are either not needed or are severely underused.
- + **Relying only on community technology centers will not ultimately bridge the technological divide between the rich and poor.** Making computers and Internet access available at a community technology center is a good start, but unless it is taken to scale, it will be limited in the number of people it can serve. Ideally, computers should be located in everyone's home, so families can use them at their convenience and so that family members who cannot leave the house can use them.

²Chow, C., J. Ellis, J. Mark, and B. Wise. *Impact of CTCNet Affiliates: Findings from a National Survey of Users of Community Technology Centers*. Newton, Mass.: Education Development Center, Inc., July 1998. Available from www.ctcnet.org/impact98.html.

³Frechting, Joy, John Lockwood, Gary Silverstein, Laura Somers, and Paul Tuss. *Evaluation of the Telecommunications and Information Infrastructure Assistance Program for the 1994 and 1995 Grant Years*. Study conducted by Westat for the National Telecommunications and Information Administration, U.S. Department of Commerce. Rockville, Md.: Westat, February 1999.



promising approaches and resources

Several localities have launched successful community technology programs that can serve as exemplary approaches for *Making Connections* sites. Five strategies are described in this section: community technology centers (CTCs), housing-based computer learning centers, school-based extended-day programs, community networks, and community programs that have established model partnerships with local institutions. For each category, we describe the idea and offer suggestions about what site teams should look out for when they establish such a program. We also present examples of promising approaches from communities around the country and identify other resources that might be helpful to communities interested in learning more about the programs and strategies.

A. COMMUNITY TECHNOLOGY CENTERS

The Idea

CTCs are places where people can go to learn about computers; gain access to the Internet or other on-line services; and use computers, printers, and other equipment to meet their personal and work needs. Typically, several computers are made available in a room or in several rooms at some convenient location in the community. A CTC might be sponsored by an independent organization or it could be part of a larger organization, such as a library or multi-service center. Typically, a CTC is free to the user or made available at very low cost. Its aim is to provide public access to computers and on-line services.

What to Look Out For

Don't reinvent the wheel. Find out what has already been accomplished in the community. For example, there might be computers available in a church or local public library. Can your project work with these programs?

Understand who might want to use the CTC. Do you have many children and young people in your area? How about seniors? Does everyone speak English? If you decide to serve more than one group, you will need to provide software, materials, and classes that are appropriate to the needs of different community members.

Talk to schools and employers in your neighborhood. It might be possible for your computer access and training program to reinforce what is being taught in school or to teach skills that employers need.

Think about how you will pay for the program *before* you acquire the computers and other hardware. Finding funds for staff, new (or updated) hardware and software, communications links, space, and other expenses must be part of your plan from the beginning.

The Idea in Practice

United Neighborhood Houses (UNH) is an umbrella association of 37 community-based, multi-service, multigenerational settlement houses and community centers in New York City that together benefit half a million people. UNH received funding initially from the U.S. Department of Commerce and several private foundations to link five settlement houses in a wide area network (WAN) with shared electronic files and e-mail. Currently, the WAN links UNH and nine settlement houses with multiple program sites. UNH's technology initiative has broadened to include fostering capacity among its membership to manage computer learning centers, called Family Rooms, for use by neighborhood families; helping member agencies integrate the use of technology within program activities, evaluation, and overall management of the settlement house; and collaborating with other organizations to offer

participants training in an array of computer-related skills. Each settlement house is governed independently and funded individually by various government and private sources.

Contact:

*Michael Roberts, Director, Information
Technology Initiative
United Neighborhood Houses of New York
70 W. 36th Street, 5th Floor
New York, NY 10018
212-967-0322
212-967-0792 (fax)
212-967-0793 (fax)
www.unhny.org*

Break Away Technologies is a comprehensive community service organization whose mission is to improve the quality of life of urban children, youth, and families through values-based, character-building education, focusing on increasing computer literacy and availability in targeted areas. The Break Away Technologies Consortium for Community Technology, a division of Break Away Research Institute, is a nonprofit training center with 50 satellite digital resource centers, 50 community kiosks, 150 affiliated members, and a resource library.

Contact:

*Linda Watson, Executive Director
Break Away Technologies
3417 W. Jefferson Boulevard
Los Angeles, CA 90018
323-737-7677
323-737-3979 (fax)
www.breakaway.org*

Located in a low-income community in the heart of Silicon Valley, **Plugged In** provides computer access and training, business services, a children's program, and a teen-run web page design business. At the core of Plugged In is the economic, skill, and opportunity deficit that has created the "digital

divide" in East Palo Alto, California. Despite its proximity to the epicenter of the technology revolution, East Palo Alto residents are struggling to get by in Silicon Valley. The Plugged In mission is to close the gap by training community members to use technology to increase their professional, educational, and social opportunities. Plugged In is completely funded by outside donations.

Contact:

*Magda Escobar, Executive Director
Plugged In
2115 University Avenue
East Palo Alto, CA 94303
650-322-1134
650-322-6147 (fax)
www.pluggedin.org
mescobar@pluggedin.org*

The best overall resource for communities interested in developing community technology centers is the **Community Technology Centers Network (CTCNet)**. (See *Resources*, page 25.) CTCNet is a national nonprofit association of about 300 CTCs. It provides information, technical assistance, on-line forums, and leadership development to its members.

Contact:

*Karen Chandler, Program Manager
CTCNet
372 Broadway Street
Cambridge, MA 02139
617-354-0825
617-354-8437 (fax)
www.ctcnet.org
kchandler@ctcnet.org*

B. HOUSING-BASED COMPUTER LEARNING CENTERS

The Idea

Housing-based computer learning centers, such as those in the U.S. Department of Housing and

Urban Development (HUD). Neighborhood Networks, are CTCs in low-income housing developments. They are really a subset of the CTCs described previously that are treated separately here because they have some unique characteristics.

Housing-based centers can be sponsored by owners, residents, civic groups, or local housing authorities. The mission of the Neighborhood Networks program is to create vibrant communities that foster economic opportunity and encourage life-long learning; primarily in HUD-insured and HUD-assisted housing. HUD provides technical assistance to participants in this program. *Making Connections* sites might be interested in exploring such centers for some of their low-income housing developments. An on-line list of Neighborhood Network Centers is available at www.hud.gov/nmw/nmwcent.html. A good general resource is the Neighborhood Networks Web page: www.neighborhoodnetworks.org.

The Idea in Practice

Gateway @ Edgewood Terrace is an ambitious technology program integrated into all aspects of the management and operation of a low-income housing complex in Washington, D.C. There are several well-designed modern computer rooms (including the largest, the center called Gateway). Social, educational, and employment services for residents incorporate computers and the Internet. Classes and open access hours serve ages 5 through senior. Gateway @ Edgewood Terrace was originally funded and built through a seed grant from HUD with the help of the Community Preservation and Development Corporation, an affordable-housing organization. The residents wanted to revitalize their community and promote good jobs. Building a CTC was a logical step in the change process. The center is maintained through other programs of the Community Preservation and

Development Corporation and aggressive fundraising. In 1999, the owner began to install personal computers in several hundred apartments and attach them to a complex-wide network.

Contact:

Gateway @ Edgewood Terrace
601 Edgewood Street, NE
Washington, DC 20017
202-832-5000
www.cpdc.org/gateway/intro.html

The **Commonwealth Tenants Association Computer Learning Center** offers computer and Internet access to low-income residents in a public-housing development. Residents are encouraged to take ownership of the center and its programs through a resident advisory committee, and every user of the center is encouraged to teach others and to learn to operate the center. Programs for adults include job skills, resume preparation, and computer applications. The center offers classes in Russian, Spanish, and English. There is an after-school program that matches kids with college volunteers for homework help, educational games, and other activities.

Contact:

Clark D. Kiser
Commonwealth Tenants Association Computer Learning Center
35 Fidelis Way
Brighton, MA 02135
617-787-2727
617-787-2282 (fax)
CTACLC@gte.net

ACORN Village is a partnership between the City of Oakland, California, and IBM Global Learning Services that focuses on providing basic job skills and career development to the adult population living in low-income housing. It also provides enhanced educational programming for school-age residents of the housing development and community.

ACORN Village began when the city of Oakland sought corporate sponsors to invest in welfare-to-work activities for families. IBM agreed to work with the West Oakland neighborhood of ACORN Village, one of the most impoverished communities in the nation. IBM installed state-of-the-art hardware and began on-site training and individual skill assessments. Eventually, the residents plan to assume responsibility for providing their own technical assistance to other residents.

Contacts:

Dr. Elexie Berri
ACORN Village
ACORN Learning Center
1143 Adeline Street
Oakland, CA 94607
510-444-1206
deberri@hotmail.com

William Warren
IBM Global Learning Services
415-550-7647
415-550-1004 (fax)
warrenb@us.ibm.com

C. SCHOOL-BASED EXTENDED-DAY PROGRAMS

The Idea

School-based extended-day programs operate in many communities, and many offer computer use or instruction. After-school hours give students a chance to learn more about how to use computers and provide a structured environment for Internet access.

What to Look Out For

Unstructured or unsupervised computer use by children and teenagers can be a waste of time or even dangerous (if they are not informed about how to use the Internet safely). It is important to provide

activities that are instructive as well as fun, such as nonviolent games, Internet treasure hunts, and arts projects. Activities should be of interest to girls and boys. Studies have shown that, as they get older, girls might need more encouragement than boys to use technology. Girls also tend to prefer collaborative activities that involve communicating with others.

Older teenagers, parents, and other adults might become interested in technology after they see children using it. Check to see whether there are programs for these age groups available in your community. Some school-based centers might be able to open their facilities to other groups at night or on weekends.

The Idea in Practice

The 21st Century Learning Center program, funded by the U.S. Department of Education and the Charles S. Mott Foundation, is an example of a large-scale effort to promote extended-day programs in public schools in low-income urban neighborhoods and rural areas. The centers are open outside of school hours, providing educational and recreational activities—many of them computer-based—for children in a safe, drug-free, supervised environment. Through this program, thousands of schools and communities have developed after-school programs for elementary and secondary school students. The average grant awarded in 2000 was \$600,000 and supported three or four after-school programs. Congress appropriated \$186 million for the program in 2000. Sixteen *Making Connections* cities have been awarded 21st Century Learning Center grants for extended-day programs.

Contact:

www.ed.gov/21stcclc

The Center for Education Technology of the National Education Association (NEA) provides news, examples from the classroom, assistance for



teachers, and many other features. NEA is the nation's oldest and largest association of public school teachers.

Contact:

*National Education Association
1201 Sixteenth Street, NW
Washington, DC 20036
202-833-4000
www.nea.org/cet*

D. COMMUNITY NETWORKS

The Idea

Community networks are low-cost, locally managed on-line information networks, usually sponsored by nonprofit community organizations. Like CTCs, many of these programs provide public access to computers and offer affordable Internet access or website hosting. In addition, they often publish information of local interest about recreational activities, employment opportunities, or community events. A sponsoring organization might organize voter information or develop a database of information on services available from various community agencies.

Typically, a neighborhood group forms a community network by making alliances with local libraries, city or county government, other community-based organizations, schools, churches, homeless shelters, community foundations, or local law enforcement agencies. Nonprofit organizations that sponsor community networks have made a conscious decision to serve as community information brokers: They want to produce information and make it available to residents—a more ambitious task than just increasing public access to other people's information. Nonprofit organizations in *Making Connections* sites that decide to organize, produce, and disseminate information on line might be interested in learning more about the community network models described here.

What to Look Out For

Many communities will already have some of the services previously described. Before launching a community network, check to see what kind of on-line information is already available about your area and which nonprofit organizations are already "up" on the Internet. Do you have something to add? Could you partner with one or more of the current participants?

Make it clear to people who might access your information who is responsible for its accuracy. For instance, if you are linked to another website (with a hypertext link), let users know that you do not maintain that site. You can learn more about these issues by exploring the sites listed below to see how they handle liability and copyright issues.

The Idea in Practice

The **Seattle Community Network (SCN)** was founded by a small group of concerned Boeing employees in 1994 in the basement of a public library in downtown Seattle. SCN is committed to providing equal access to information and networks for those who could not otherwise afford it. SCN is a nonprofit organization that makes computer accounts available at no charge to low-income people, and it publishes or hosts information about the region on its Community Pages. Organizations that have taken advantage of the Community Pages include neighborhood, environmental, and arts groups as well as political parties, schools, health care and social advocates, and outdoor clubs. SCN also hosts many mailing lists on a variety of topics. Any registered SCN user can create a personal website. SCN is exclusively funded through donations from its users, although it recently qualified for a \$26,000 grant from the city of Seattle. It is run exclusively by volunteers—it has no staff or office.

Contact:

Seattle Community Network
206-365-4528 (voicemail only)
www.scn.org
scna@scn.org

LibertyNet.com offers extensive news and information about nonprofit organizations, businesses, education resources, economic development, civic issues, and community services in the Philadelphia region. Recreational activities in and around Philadelphia also are highlighted. Additional services include outreach to nonprofit organizations and training in computer and web skills. LibertyNet recently affiliated with a for-profit company called Regional Network Communications, Inc.

Contact:

www.libertynet.com

The **Association for Community Networking** seeks to assist and connect people and organizations to build public awareness, identify best practices, influence policy, and encourage research. Its website, the on-line home of the national association, has links to other useful information sites for community networkers.

Contact:

Andrew Cobill, President
840 University City Boulevard, Suite 5
PO Box 10155
Blacksburg, VA 24060
540-231-1619
540-231-2139 (fax)
www.afcn.net
cobill@bev.net

Community Connector is a good reference site maintained by the University of Michigan that contains information on topics such as funding sources, civic engagement, and evaluation, and includes a directory of community networks.

Contact:

www.si.umich.edu/Community

The **Benton Foundation** website hosts a good collection of best practices and a toolkit for networkers.

Contact:

Benton Foundation
950 Eighteenth Street, NW
Washington, DC 20006
202-638-5770
202-638-5771 (fax)
www.benton.org/Cyber/cp-freenets.html

E. COMMUNITY PROGRAMS AND MODEL PARTNERSHIPS

The Idea

Several communities have forged local partnerships to launch and sustain community technology projects. The projects span the types of efforts described above; they include CTCs, community networks, and housing-based or school-based computer centers. We treat them here separately because they offer useful information about building local partnerships to establish and sustain community technology programs.

Typical partners include the local public schools, libraries, churches and faith groups, businesses, cable TV stations, nonprofit organizations, and colleges and universities. In addition to being helpful to a community technology program, such groups are important stakeholders in *Making Connections*. Early on, they can contribute valuable information to the community's needs assessment or asset-mapping process; later, when programs are getting off the

ground, they can provide critical resources, such as funding, space, and volunteers. They also can help promote the technology program throughout the community.

What to Look Out For

Studies across many sectors (government, higher education, and industry) have demonstrated that successful partnerships are harder to create than most people think. Partners need to take the time to get to know one another, to be honest about what they need and what they can contribute to the partnership, and to be clear about the results they expect. Strong, sustained communication between partners is essential. Establish good practices early in the relationship, and problems later on will be easier to handle.

Credit for achievement (and responsibility for slip-ups) should be shared, publicly. In addition, written agreements and objectives can help keep partnerships on track.

The Idea in Practice

The **Women's Economic Agenda Project** (WEAP) in Oakland, California, works effectively with many allies, including city government, community-based organizations, schools, job training programs, and industry (most recently as a Cisco Networking Academy site).

Contact:

Ethel Long-Scott
Women's Economic Agenda Project
Women and Family Center
449 Fifteenth Street, 2nd Floor
Oakland, CA 94612
510-451-7379
510-968-8628 (fax)
www.weap.org
weap@ccnet.com

Cambridge Community Television (CCTV) is a public access media center that provides video production and computer-based technology training and access to three community cable channels, a community radio station, a gallery, studio and editing facilities, and a computer center in Central Square, Cambridge, Massachusetts. The Family Computer Literacy Project (FCLP) offers a unique multilingual computer and literacy program for low-level-literacy and linguistic minority parents and their children. A new outreach and training initiative, Targeted Tutorials, extends this project to provide instructional support to underserved communities. Tutorials are offered for seniors and Spanish-speakers. FCLP began as a pilot project of the Center for Applied Special Technology. Additional past and current supporters include Apple Computers, Lotus, the Boston Foundation, the W. K. Kellogg Foundation, the Massachusetts Cultural Council, the National Endowment for the Arts, and the Nord Family Foundation.

Contact:

Ginny Berkowitz, Director of Development
Cambridge Community Television
675 Massachusetts Avenue
Cambridge, MA 02139
617-661-6100
617-661-6927 (fax)
www.cctvcambridge.org
ginny@cctvcambridge.org

The **Telecommunications Opportunity Program** (TOP) of the U.S. Department of Commerce National Telecommunications and Information Administration has a website that offers tips on how communities can build effective partnerships for technology programs.

Contact:

*Stephen J. Downs, Director
Technology Opportunity Program
U.S. Department of Commerce
1401 Constitution Avenue, NW
Washington, DC 20230
202-482-2048
202-501-5136 (fax)
www.ntia.doc.gov/otiahome/top
sdowns@ntia.doc.gov*

The **Benton Foundation's** "Lessons Learned" website includes first-person stories from the field about what went wrong (and right) in community technology projects.

Contact:

www.benton.org/Practice/Lessons

22



resources: people, places, and materials

In addition to the specific models of community technology programs listed in the previous section, there are many organizations and individuals that help community nonprofit organizations in the field of emerging technologies. Resources are listed here in the following categories: national technical assistance providers, resource materials and websites, and technology projects in *Making Connections* sites.

A. NATIONAL ORGANIZATIONS

National technical assistance organizations provide affordable advice, knowledgeable mentors, and helpful information about how to use computers and on-line communications in the nonprofit world. They offer services and products, such as on-line training in nonprofit management and low-cost (or free) software designed especially for non-profits, and mailing lists (frequently stored on a central computer for easy reference) for computer users in the nonprofit sector.

The **OMB Watch Nonprofits' Policy & Technology** project is focused on providing opportunities for nonprofits to learn about and use new technologies for public policy activities, improve communication and coordination among technology and public policy professionals in the nonprofit sector, and find ways to increase nonprofits' access to and comfort level with these tools.

Contact:
www.ombwatch.org/npt

The **Idealist** website, a project of Action Without Borders, is an on-line-only technical assistance organization for nonprofits. It includes a directory of local technical assistance providers that can be searched by location, and it offers a wealth of other information about funding, policy, and technology.

Contact:
Russ Finkelstein
Action Without Borders
350 Fifth Avenue, Suite 6614
New York, NY 10118
212-843-3973
212-564-3377 (fax)
www.idealist.org
russ@idealist.org

HandsNet is a pioneer in providing on-line information and support to social service organizations. The website includes reference material and action alerts on children, youth, and families; health care; welfare reform; and many others. It also offers excellent training in the use of network technologies to improve effectiveness.

Contact:
HandsNet
2 N. Second Street, Suite 375
San Jose, CA 95113
408-291-5111
408-291-5119 (fax)
www.handsnet.org
hninfo@handsnet.org

Coyote Communications provides nonprofit technology tip sheets and practical, field-tested advice.

Contact:
www.coyotecom.com

+ Public Libraries and National Associations

In addition to the national technical assistance providers listed above, there are several national nonprofit technology access and outreach programs that are sponsored by professional associations and public libraries. These groups offer training, information, discounts on computers and related services,

or "how to" manuals for using computers in a particular setting, such as a library.

The **National Urban League**, founded in 1910, supports African Americans in achieving social and economic equality. The organization has 115 affiliates nationwide and hopes to include a technology program in every one of them by 2006.

Contact:
www.nul.org.

The **American Library Association** is the major professional association for librarians and includes school librarians, public librarians, and many other groups.

Contact:
www.ala.org

Libraries for the Future, the national association of friends-of-the-library groups, is a powerful advocate for library services. It has a strong commitment to technology equity and sponsors innovative social programs in libraries.

Contact:
www.lff.org

The **Gates Library Foundation** was organized by Bill and Melinda Gates to support Internet access in public libraries. The foundation makes grants to pay for training and technical assistance as well as computer equipment and software.

Contact:
www.glf.org

+ **Technology for Persons with Disabilities**

For specific resources that can help communities establish technology programs for persons with disabilities, *Making Connections* sites might want to contact the following organizations:

The **World Institute on Disability** is an excellent source of information on using computer technology to serve and empower people with disabilities.

Contact:
World Institute on Disability
510 Sixteenth Street, Suite 100
Oakland, CA 94612
510-763-4100
510-208-9496 (TTY)
510-763-4109 (fax)
www.wid.org

The **Alliance for Technology Access** is a national network of 42 community-based, consumer-driven technology resource centers working in collaboration with 80 technology vendors, other organizations with similar missions, and individuals working in the field of assistive technology to increase access to standard and assistive technologies for people with disabilities.

Contact:
Joyce Hakansson, Executive Director
Alliance for Technology Access
2175 East Francisco Boulevard, Suite L
San Rafael, CA 94901
415-455-4575
415-455-0654 (fax)
www.ataccess.org
atainfo@ataccess.org

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B. MATERIALS AND WEBSITES

The materials identified in this section can give site teams and *Making Connections* sites "how to" information: how to design and evaluate a community technology program, how to help residents find the best websites for specific age groups, and so on.

+ Design and Evaluate Community Technology Projects

Grunwald, Terry. *Making the Net Work: On-Line Strategies for Community Based Organizations*. NCexChange, 1996. This handbook takes the nonprofit organization through a step-by-step, outcomes-driven process for analyzing its on-line networking requirements. Available for \$20 from NCexChange, PO Box 28068, Raleigh, NC 27611; 919-856-2176; www.ncexchange.org/guideorder.html; e-mail: info@ncexchange.org.

Stone, Antonia. *CTCNet Center Start Up Manual*. Community Technology Centers Network. This "how to" manual was written by one of the pioneers in community technology. Its 186 pages lead community groups through the process of assessing the local need for community computer centers, planning a center, and getting it up and running. Available for \$25 from the Community Technology Centers Network, EDC, 55 Chapel Street, Newton, MA 02158. Free copies on line at www.ctcnet.org/toc.htm; e-mail: ctcnet@edc.org.

The Eastern LINCS Technology Planning Leadership Program Resources web page includes links to and information about technology planning, technology funding, computer hardware, and educational software publishers. The page is part of the Eastern LINCS (Literacy Information and Communications System) site managed by World Education/ The New England Literacy Resource Center.

Contact:

<http://easternlincs.worlded.org/nelrctech/techplanning/index.htm>.

The research and evaluation area of the **Technology Opportunity Program (TOP)** website contains a resource list for evaluators of technology programs and links to published evaluations of TOP projects. TOP (formerly TIIAP, the Telecommunications and Information Infrastructure Assistance Program) is a federal matching-grant project for nonprofit organizations and for state and local governments engaged in innovative projects using computer-based communications.

Contact:

www.ntia.doc.gov/otiahome/top/index.html

+ Training and Curriculum Materials

The following materials provide community organizations with packaged curricula for training computer users. Some are available for purchase; others are free.

Basic Computer Skills

www.urbantech.org

The **National Urban Technology Center** in New York City offers curricula and lesson plans for teaching basic computer skills, such as word processing, using spreadsheets, and using the Internet. The materials are tailored for the reading abilities and ethnic diversity of inner-city residents. The center also provides staff development services and turnkey installation of computer centers.

www.iste.org

The **International Society for Technology in Education (ISTE)** publishes basic technology skills standards for students and teachers that help planners identify what residents need to learn.

Literacy Training

www.literacyonline.org

Literacy Online is a project of the National Center on Adult Literacy at the University of Pennsylvania. It offers information about literacy, including how to use computers to improve literacy programs. For more information, contact the center at the University of Pennsylvania, 3910 Chestnut Street, Philadelphia, PA 19104; 215-898-2100; 215-898-9804 (fax); e-mail: editor@literacy.upenn.edu.

Workforce Development Training

www.microsoft.com/skills2000

The **Microsoft Corporation Skills 2000** website provides information about careers in information technology and includes a self-administered technology aptitude test.

www.ajb.dni.us

America's Job Bank is sponsored by the U.S. Department of Labor and state employment services. It announces thousands of job openings (updated daily), has links to state search engines, and connects jobseekers to employer-maintained job listings. Most of the listings are for full-time jobs in the private sector. They represent all types of work, from professional and technical to blue collar, from management to clerical and sales. The service is free to employers and jobseekers.

+ Policy Issues, Telecommunications, and Technology

Two resources may be helpful to community leaders who want to become familiar with the latest telecommunications policy issues:

www.benton.org

The **Benton Foundation** promotes communications in the public interest, translates communications policy for lay people (www.benton.org/cpphome.html), and highlights effective, noncommercial uses of the Internet (www.benton.org/Practice). The foundation also

provides an opportunity for individuals and organizations to share information and learn from each other about what works and what doesn't in this field. See in particular the 1998 report, *Losing Ground Bit by Bit: Low-Income Communities in the Information Age* on line at the website.

www.cme.org

The **Center for Media Education** is a national nonprofit organization dedicated to improving the quality of electronic media, especially on behalf of children and families. The center has done important work in children's television programming, digital broadcasting, and on-line safeguards for children, and it is an excellent source of information about the spectrum of telecommunications policy issues.

+ Websites for Children, Teens, and Families

Polly, Jean Armour. *The Internet Kids and Family Yellow Pages*. Osborne McGraw Hill, 1999.

Those who would prefer a print introduction to the World Wide Web should consider this directory of more than 4000 interesting, fun, and useful websites for kids and families. All sites have been checked by professional librarians and other "kid" experts, and the book comes with a companion CD-ROM. ISBN 0072118490. Retail price \$34.99; cheaper if purchased on line.

www.homeworkcentral.com

Homework help for students from elementary through college age, with many reference materials available, as well as e-mail access to personal assistance. Free to the user; contains a modest amount of advertising.

www.yahooligans.com

www.ajkids.com

Yahooligans! is a well-constructed **directory service for kids**, based on the popular Yahoo! service for adults. Material is topically organized and easy to navigate. A terrific **search engine for children** is AskJeeves for Kids. Kids can type in their questions

in ordinary English and receive a list of similar questions that "Jeeves" knows the answers to, along with links to websites. Great for narrowing down the vastness of the web. Both sites contain modest amounts of advertising.

www.ipl.org/teen

The **Internet Public Library**, a project of the University of Michigan, has a well-researched teen page. Many other resources also are available, but this is a good starting point.

www.parentsoup.com

Parent Soup offers parenting advice, chat groups, and activities for kids, along with some advertising. The service is free, but users must respond to a brief questionnaire before registering. Policies on the use of personal data for marketing are thoughtful and appropriate.

www.connectforkids.org

Connect for Kids helps adults get connected to the information and resources they need to make a difference for kids and their communities. Offers ideas and materials to support advocacy, and includes an action-oriented, state-by-state guide to the status of children.

www.ala.org/parents/greatsites/guide.html

The **Librarian's Guide to Cyberspace for Parents & Kids** of the American Library Association has an introduction to the Internet, definitions, safety tips, and a list of more than 50 great sites for kids and parents. It also includes Teen Hoopla, an Internet guide for teens; more than 700 sites for adults and kids to visit; and tips for children's use of computers at the public library.

www.zdnet.com/familypc

FamilyPC magazine's website contains information about computer activities for children and families, using the Internet safely, and purchasing computer equipment, along with some advertising.

+ **Human, Material, and Financial Resources**

The sites listed below offer suggestions to community organizations for finding volunteers, affordable computers, and software.

www.impactonline.org

Impact Online has a Virtual Volunteering project that matches volunteers throughout the U.S. with appropriate service opportunities.

www.servenet.org

ServeNet has a service similar to the one above. Check both to find a match for your needs.

www.cns.gov

VISTA/Americorps and other federal service programs can be great sources of low-cost staff and volunteers, from college age to seniors.

Funding Information and Resources

www.srainternational.org/cws/sra/resource.htm

GrantsWeb is a mind-bendingly complete guide to finding money, with a special focus on government funding. Sponsored by the Society of Research Administrators.

www.fdncenter.org

The **Foundation Center** is a national association dedicated to "fostering public understanding of the foundation field by collecting, organizing, analyzing, and disseminating information on foundations, corporate giving, and related subjects." It publishes comprehensive directories of private and corporate foundations, offers many tools for grant-seekers, and operates regional libraries.

+ **Affordable Hardware, Software, and Other Resources**

www.sharetechnology.org

Share the Technology is a nonprofit devoted to recycling older computers. The home page is a good place to begin to look for recycled and refurbished

computer equipment (or to find out how to donate your old equipment).

www.compumentor.org

CompuMentor offers a distribution service for low-cost Microsoft and other commercial software aimed at nonprofits. (Note: Microsoft donations are not available to political organizations, K-12 schools, or religious organizations.) Software is available in several categories:

- + office suites and applications (such as Microsoft Office and Word)
- + database programs
- + web and communications software
- + desktop publishing and multimedia titles
- + utilities
- + educational software
- + games
- + books

To keep costs down, all software must be ordered on line. To order a print catalog, call 415-512-7784.

www.ebase.org

Ebase is a powerful, free database management application designed especially for nonprofits and distributed at no charge by a nonprofit technical assistance organization, the **Technology Project**. Ebase runs on Apple Macintosh or PC-clone computers. (Note that to customize the standard version or to use it on a network server requires purchasing the underlying program, Filemaker Pro.) Ebase supports management of constituent contacts, e-mail merges, and analysis of results. Contact the Technology Project or Marshall Mayer, marshall@egroup.org.

www.hotmail.com

www.juno.com

Free e-mail accounts are available from several companies, including Juno and Hotmail. The catch is that users must endure a fair amount of on-screen

advertising or in some cases fill out personal questionnaires. It's wise to check policies on use of personal data before signing up.

C. TECHNOLOGY PROJECTS IN MAKING CONNECTIONS CITIES

There are community organizations in *Making Connections* sites that already sponsor technology programs. Those organizations generally do not provide technical assistance, but they are usually willing to "show their wares" to visitors. Therefore, community representatives in a *Making Connections* site might want to call or visit the organizations listed for ideas about how to expand technology programs to other neighborhoods.

All of the organizations listed here have received some funding for and are operating programs, so they have some experience that could help other organizations design and implement them. The organizations are listed by *Making Connections* sites.

BALTIMORE

Communities On-Line, a Neighborhood Networks affiliate, is the result of a collaborative effort among the residents of McCulloh Homes and Orchard Mews, HUD, Representative Elijah Cummings, and the Baltimore Urban League, Inc. Communities On-Line uses computer technology to help residents of public and assisted housing—and the community at large—to become more self-sufficient, employable, and economically self-reliant.

Contact:

*Michael Smith, Vice-President, Technology
Baltimore Urban League, Inc.
512 Orchard Street
Baltimore, MD 21201
410-523-8150, ext. 247
410-523-4022 (fax)
www.bul.org
msmith@bul.org*

The **Shelter Foundation** operates a resident services program in a 500-person low-income-housing project. Among the services are an after-school program and a computer center for kids and adults. Kids use the computers for educational games and enrichment; adults use them for Internet access, research, artwork, and employment-related activities.

Contact:

*Tom Bonderenko
Shelter Properties
218 N. Charles Street
Baltimore, MD 21201
410-962-0595
410-625-9653 (fax)
aburns@sheltergrp.com*

BOSTON

The **Dorchester Family YMCA** provides computer classes and special training for adults, elders, children, preschoolers, and youth. Classes are offered weekdays, evenings, and Saturdays.

Contact:

*Louise Powell, Director of Education and Training
Dorchester Family YMCA
776 Washington Street
Dorchester, MA 02124
617-436-7750
617-436-9212 (fax)
www.ymcaboston.org
lpowell@dotymca.org*

United South End Settlements (USES) technology resources include a modern computer lab with 25 computers, laser and color printers, scanners, and a digital camera. All have Internet access. USES also hosts a satellite branch of the Boston Computer Museum's Computer Clubhouse for 8- to 13-year-olds. This program is open for after-school drop-in. Participants work on a variety of projects using professional software such as Adobe Photoshop and Macromedia Director.

Contact:

*Amy Grabel, Computer Instructor
United South End Settlements
566 Columbus Avenue
Boston, MA 02118
617-375-8127
617-536-9638 (fax)
agrabel@uses.org*

DETROIT

The **Head Start Family Service Center (HSFSC)** operates a public access computer lab for Head Start staff and families. Head Start is a federally funded program for low-income families with children ages 3 to 5. In addition to operating the computer lab Monday through Saturday, the agency provides technical assistance and training to seven other Head Start labs in the city, and it cofounded the Detroit Technology Coalition in November 1999. The HSFSC provides open lab access, classes, Internet access, and special programs for almost 1000 families, children, and staff each year.

Contact:

*Scott Gifford, Executive Director
City of Detroit Head Start Family Service Center
Learning Lab
13560 East McNichols
Detroit, MI 48205
313-526-4001
313-526-6319 (fax)
www.matrixhumanservices.org
sgiffbsfsc@aol.com*

HARTFORD

Leadership, Education, and Athletics in Partnership (LEAP) is a community-based non-profit organization that develops the strengths and talents of young leaders recruited from local colleges and high schools. LEAP helps to create and implement year-round programming to improve academic and social outcomes for children aged 7-14 who live

in poor urban neighborhoods. LEAP currently serves about 1300 children in Bridgeport, Hartford, New Haven, New London, and Waterbury, Connecticut. It operates five LEAP Computer Learning Centers—in Hartford, New Haven, and New London. Children who go to the centers each week are engaged in projects that enhance their knowledge of advanced telecommunications technology as they strengthen their communication and problem-solving skills.

Contact:

Conrad Wynter, Jr.
Leadership, Education and Athletics in Partnership
PO Box 260217
Hartford, CT 06126
860-951-0767
860-951-0374 (fax)
www.leap.yale.edu
conradw@leap.yale.edu

MILWAUKEE

MATA Community Media (formerly the Milwaukee Access Telecom) is a nonprofit community multimedia center serving the residents of Milwaukee and seven suburbs. Its primary focus is on video broadcast and computers. MATA's education department trains youth in video production and various computer skills. All equipment, props, and computers are made available free of charge.

Contact:

Vel Wiley-Hooper
MATA Community Media
1610 N. Second Street
Milwaukee, WI 53212
414-225-3560, ext. 112
414-225-3564 (fax)
www.matamedia.org

The Greentree and Teutonia Community Learning Center is a state-of-the-art learning

center located in a Section 8 apartment complex on Milwaukee's northwest side. The center provides Head Start, day care, after-school and other programs to young families living in the apartment complex, many of whom are headed by single parents. The learning center is housed in a newly designed "high tech" space that has 30 "high end" workstations complete with fast computers, scanners, digital cameras, and printers. Children use the computer lab for homework assistance and as an educational resource; parents use it to improve their employability and to learn technical skills. The center is staffed by residents.

Contact:

Greentree Apartment Corporation
Greentree Teutonia Community Learning Center
3744 W. Greentree Road
Milwaukee, WI 53209
608-255-2759

OAKLAND

OCCUR's Eastmont Computing Center (ECC) serves as a community resource on information technologies, committed to providing universal computer and Internet access to Oakland, California, and employment-focused, cutting-edge, information technology training to youth and other residents of underserved communities. OCCUR is a broad-based community action agency in Oakland.

Contact:

Tony Fleming, Director
Eastmont Computing Center
7200 Bancroft Avenue, Suite 209
Eastmont Town Center
Oakland, CA 94605
510-382-0555
510-382-1050 (fax)
www.eastmont.net
director@eastmont.net

The **Computer and Telecommunications Skills Center** provides computer access and training for low-income youth and adults in Oakland. Among center offerings are CalWorks computer and life skills training for those making the transition from welfare to the job market, high-tech training for web design and for the Cisco Regional Networking Academy, and self-employment training.

Contact:

*Ethel Long-Scott, Executive Director
Women's Economic Agenda Project
Computer and Telecommunication Skills Center
449 Fifteenth Street, 2nd Floor
Oakland, CA 94612
510-451-7379, ext. 226
510-986-8628 (fax)
www.weap.org
weap@ccnet.com
rhalpern@weap.org*

PHILADELPHIA

The technology programs at Philadelphia's **Lutheran Settlement House** are integrated into a holistic youth and community development program based on establishing continuing relationships with neighborhood residents. Current projects include TechSmart, an after-school program for middle school students; an open access computer lab; and the Kensington Computer Reuse Program, which teaches teenagers to repair and test older computers and then sends computers home with the kids for family use. Refurbished computers are also made available to social service and nonprofit agencies.

Contact:

*Wendy DePuy, Youth and Technology Programs
Coordinator
Computer Lab/Neighborhood Access Center
Lutheran Settlement House
1340 Frankford Avenue
Philadelphia, PA 19125
215-426-8610, ext. 208
215-426-0581 (fax)
Wdepuy@lutheransettlement.org*

The **Philadelphia Parent Child Center, Inc.**, operates computer labs in two North Philadelphia locations. The labs are open to parents of children enrolled in the Early Head Start and Head Start programs. One lab is predominately for English speakers; the other is bilingual (English-Spanish). Agency staff members have access to the labs and to training opportunities. There are also computers in every classroom for use by the children.

Contact:

*Jacqueline Green, Assistant Executive Director
Philadelphia Parent Child Center
2515 Germantown Avenue
Philadelphia, PA 19133
215-229-1800, ext. 230
215-229-5860 (fax)
ppcc@ctcnet.org*

SAN DIEGO

Casa Familiar, in San Ysidro, California, a low-income community of San Diego, operates four computer labs with a total of 68 workstations. There is an open-access lab, an education lab, a parent-child lab, and a young children's lab. Adult and youth programs include instruction in computer literacy, computer applications, job preparation, Internet use, and graphic design. Staff members also

help with job searches, Internet searches, homework, and personal projects. Community partners include the San Diego Housing Commission, Gateway Computers, and Cox Communications.

Contact:

Andrea Skorepa, Executive Director

Casa Familiar

119 West Hall Avenue

San Diego, CA 92173

619-428-1115

619-428-2802 (fax)

www.casafamiliar.org

andreas@casafamiliar.org

SEATTLE

At the **Literacy Learning Center**, staff members believe that computer literacy is as important as the three R's. They work with adults to improve literacy skills or learn English as a second language, and computers are used by staff, students, and volunteers to support literacy building. A GTE grant supports a family literacy and technology program in which reading, writing, and parenting skills are developed. Students are economically and ethnically diverse.

Contact:

Anne Helmbolz, Director

Washington Literacy Learning Center

8016 Greenwood North

Seattle, WA 98103

206-782-2050

206-684-4024 (fax)

www.waliteracy.org

litaction@waliteracy.org

The **Great Computer Giveaway Program** is run by Powerful Schools, a consortium of four elementary schools and two community organizations in Seattle's Rainier Valley. It serves a large population of low-income, immigrant, and ethnic families. Participants in the program learn basic computer

skills at free computer classes and receive free second-hand machines for home use, along with modems and e-mail accounts. The program encourages past participants to become volunteers and trainers. Grass-roots technology program participants also have access to the other family and community support programs offered by Powerful Schools, including after-school classes for the whole family.

Contact:

Irene Woo, Associate Director

Powerful Schools Great Computer Giveaway Program

3301 South Horton

Seattle, WA 98144

206-722-5543

206-760-1723 (fax)

www.powerfulschools.org

toising@nwlink.com

WASHINGTON, D.C.

Calvary Bilingual Multicultural Learning Center serves preschoolers to adults. Computers are used in the early childhood years through a partnership with the IBM Corporation. Children aged 5-15 use the Community Technology Learning Center after school for homework help, academic enrichment, and skill building. Calvary works closely with other youth-serving organizations in the community, sharing the computer facilities with them to strengthen neighborhood ties and create a supportive network for youth.

Contact:

Beatriz Otero, Executive Director

Calvary Bilingual Multicultural Learning Center

1420 Columbia Road, NW

Washington, DC 20009

202-332-4200

202-745-2562 (fax)

www.cbmlc.org

info@cbmlc.org

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resource
GUIDES

As part of the *Making Connections* Technical Assistance/ Resource Center, the following Resource Guides are scheduled to be produced during 2000:

Economic Opportunities for Families

- + Connecting Families to Jobs
- + Building Family Assets

Enhancing Social Networks

- + Family Support
- + Engaging Residents in an Agenda to Strengthen Families

Building High-Quality Services and Supports

- + Building More Effective Community Schools
- + Community Safety and Justice
- + Child Care for Communities
- + Meeting the Housing Needs of Families
- + Community Partnerships to Support Families
- + Improving Health Care for Children and Families
- + Developing Community Responses to Domestic Violence

Techniques for Advancing a Family Strengthening Agenda in Neighborhoods

- + Using Communications to Support Families and Neighborhoods
- + Connecting Families to Computers and On-Line Networks
- + Outcomes-Based Accountability

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The Annie E. Casey Foundation

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Baltimore, MD 21202
410.547.6600
410.547.6624 fax
www.aecf.org



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