

WORKING DRAFT

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**BRIDGING THE ORGANIZATIONAL DIVIDE:
PATHWAYS FOR CREATING ONLINE COMMUNITY
CONTENT AND APPLICATIONS**

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Bridging the Organizational Divide: Pathways for Creating Online Community Content and Applications

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I. Introduction and Overview

At the dawn of the 21st century, information technology is rapidly transforming our economy and society. In America, it has the ability to generate great wealth and prosperity, while at the same time reinforcing economic disparity and magnifying inequities. Many low-income neighborhoods, isolated from these economic transformations, are experiencing a “digital divide” -- lack of access to personal computers, to the Internet and to the interactions and opportunities these technologies provide. Policymakers, community practitioners, and the technology industry have quickly responded to the digital divide by creating policy and programs that provide low-income communities with access to and training on information technologies. However, access and training alone will not bridge the digital divide. This paper provide evidence for expanding the digital divide policy dialogue beyond resident access to include content and application development by the community based nonprofit sector.

Recently, several scholars and advocacy organizations have stated that universal access and training are just one pillar of the digital bridge, and the next generation of digital divide policy must support a second pillar -- the creation of local content and applications.¹ As we turn our attention to content and applications, nonprofit organizations working in marginalized

¹ Content is relevant and meaningful community-based information such as employment, housing, community events, schools and other types of education, child care, and faith institutions. This information must be able to be understood by limited-literacy users, published in appropriate languages and offered in culturally appropriate manners (Children’s Partnership, *Online Content Development for Low-Income and Underserved Americans – The Digital Divide’s New Frontier*, 2000, p. 4). Applications are the tools and mechanisms in which content is published, displayed and used on the Internet and computers.

neighborhoods must take the lead in this process. It is these organizations - and their resident constituency bases that possess the wisdom and knowledge to use information technology as a tool for building social and economic equity. Therefore, PolicyLink contends that a comprehensive policy campaign, which includes support for universal access, relevant local content, and the applications to share it will demonstrate how technology can be used as a tool for building strong, organized communities. (Box I).

Developing and advancing a policy campaign to create community-based online content will require new investment and capacity building. Traditional community based organizations, community development corporations and community builders -- a significant component of the community infrastructure² -- represent a segment of the nonprofit sector with little technology capacity. Incorporating these organizations into the digital divide policy process will be a considerable challenge, as many of them have historically been the last to benefit from technological innovations and, currently, they are struggling to find ways to use technology as a tool to advance their missions. Addressing this “organizational divide” -- or lack of technology capacity in the community nonprofit sector -- is the first step in engaging community based organizations in the digital divide policy dialogue. Once these organizations have the technical capacity to use information technologies, they can create and produce community-based content, participate in the new economy, and develop new policy to support other organizations’ efforts to use information technology as part of a comprehensive strategy to build social and economic equity.

² Community infrastructure includes residents, activists, community development corporations, social service organizations, affordable housing developments, faith institutions, business owners, schools, etc. working together and independently to address poverty and racism.

A Community Building Approach to Bridging the Digital Divide (Box I)

A comprehensive community building approach to addressing the digital divide would include three key elements: (1) universal access and basic technology literacy training; (2) relevant online content, created by and for communities; and (3) the development of innovative information technology applications that address community needs. Taken together this leads to the strategic use of technology as a tool for community ownership and empowerment.

- **Access and Basic Technology Literacy Training:** Universal access to computers and the Internet, combined with basic technology literacy training is a critical component to bridging the digital divide. Creating diverse and varied access points, opportunities for computer ownership for disadvantaged families, and building technology literacy constitute the basic infrastructure required for a digitally equitable society. As we continue to work towards universal access it is important to create access points in locations that fit in the lives of the technologically underserved, whether by co-locating with community based institutions they already utilize, public housing projects, libraries, etc. Additionally, as further advances in broadband technologies occur we must insure they are made available to all segments of society.
- **Relevant Content, Created By and For Communities:** A recent strategic audit of online content conducted by the Children's Partnership demonstrated that another dimension of the digital divide is the lack of content that is relevant to the lives of low-income and underserved communities.³ The study indicates that the content most useful to communities at risk of being left behind includes the following: (1) employment, education, business development, and other information; (2) information that can be clearly understood by limited-literacy users; (3) information in multiple languages; and (4) opportunities to create content and interact with it so that it is culturally appropriate. PolicyLink views the development of relevant online content - created by and for low-income communities - as a critical component to bridging the digital divide, and one that is a parallel strategy to promoting universal access. The presence of content that addresses the needs of the underserved can spark a desire to acquire access to and facility in using digital technologies. As such universal access and relevant online content are mutually reinforcing variables in the digital equity equation. As more content relevant to the needs of low-income, underserved communities is developed, we must insure that this is a participatory process with the end users shaping the process. It is also critical that community-based organizations be active participants in the process of online content development, given their strong connection to underserved constituents.
- **Development of Innovative Information Technology Applications.** Information technologies are powerful tools that have revolutionized production processes, increased productivity gains, etc., in many sectors of the economy. These technologies can also be as a tool for community problem solving. For example, innovative IT applications can enhance and improve service delivery, create social and economic opportunity, etc. While we are seeing promising examples of community-based organizations using information technologies as a strategic tool to further their work, these often occur in isolation of policy supports and are quite nascent. A critical barrier in the development of community relevant IT applications is what PolicyLink refers to as the "organizational divide", the historic fact that community based organizations have been the last to benefit from technological innovations and are currently struggling to find ways to use technology as a tool to advance their missions. In order to use technology as a strategic tool for community problem solving, we need policies in place that provide community based organizations with the technological tools that are essential to being effective in the digital age.

Access, content, and applications taken together constitute a comprehensive strategy for bridging the digital divide. The universal access movement serves the important function of building the infrastructure upon which we develop strategies for greater social and economic inclusion. Parallel to universal access strategies we need ones that promote the development of relevant content for residents and innovative IT applications that can support the work of community based organizations focused on promoting equity. In order to do this we need to support the existing community infrastructure by building technological capacity.

³ Children's Partnership, *Online Content Development for Low-Income and Underserved Americans – The Digital Divide's New Frontier*, 2000.

While the community infrastructure might be technology deficient, it is extremely information rich. Community organizations are the gatekeepers of local information and the essential ingredient for making local content relevant and useful. Therefore, as policymakers, advocates and practitioners our task is not to create local content, rather it is to build the capacity of the sector to make available online the wealth of information maintained by local community based organizations. Future community technology policy and programs must create opportunities for community groups to be at the forefront of the online content publishing process. When this process is lead by community organizations and residents they move from being consumers of information to producers and owners of information, which ultimately leads to economic advancement.

This paper will focus on the capacity needs of community-based nonprofit organizations. Building the capacity of community-based organizations to effectively use information technology is a hurdle that can be overcome, and several organizations have developed community-based content and applications that serve as excellent examples of promising practices. We will profile of six types of activities that community-based organizations are supporting with information technology, including: 1) advocacy and online organizing, 2) community information clearinghouses, 3) networking and online communities, 4) innovations in service delivery, 5) interactive database development, and 6) community mapping.

This paper presents a context for supporting the community infrastructure with technology policy, highlights some of the challenges facing the community based nonprofit sector to use technology, identifies resources available to build the technology capacity of the nonprofit

sector, shares promising practices for developing meaningful content and applications and offers a set of policy options for supporting community based nonprofits to use technology.

II. Moving Beyond Access: Why Is the Existing Community Infrastructure Important to the Digital Divide?

If an access-centered approach were the only solution to the digital divide and every home had computers and Internet connectivity, with the requisite training, our country would still be faced with an array of social problems such as persistent poverty, lack of access to quality healthcare for many Americans, and institutional racism. In other words, the technology itself will not bridge the dynamics that divide our society. Rather, digital technologies are tools that can be used to promote equity, and build strong organized communities. This section provides background and context on the community infrastructure for building policies and programs to support the creation of digital content and applications by community-based organizations.

The Digital Divide in Context

The need for linking community technology efforts to broader neighborhood revitalization becomes clear when the digital divide is placed in the context of larger social justice efforts. The divide is not new, as America has been divided in terms of income, race, and education for many decades. Rather the term “digital” has been recently introduced as one of the many modifiers that define these inequities. If we consider the information poor and rich in America, we see that the digital fault line falls along historic social and economic divides. African Americans, Latinos, and other central city and rural residents with lower incomes, less education, and from single parent households, are using technology at rates far lower than their white, Asian/Pacific

Islander, higher income, more educated, dual parent household counterparts. And as digital technologies transform the workplace, our educational institutions, financial systems, and social spaces, communities who lack access will be further marginalized from full participation in society, which will exacerbate these existing inequities.

In the past, various social movements have worked to bridge our historic divides and promote a more equitable and democratic society. These efforts -- often spearheaded by community development corporations, social service providers, activists, organizers, and residents -- have built vibrant community infrastructures in neighborhoods around the country. As we develop policies and programs to bridge the digital divide we must insure that this technology-based social movement is linked to broader strategies for social change in two ways. First, we must utilize the wisdom and experience of the existing community infrastructure to inform our work around the digital divide. Second, our efforts should focus on using emerging technologies as a tool to strengthen and support the community infrastructure.

III. Technology Challenges and Opportunities Facing Community Based Organizations

Despite the absence of substantive public policy and programs to promote the use of information technology by nonprofit agencies, a number of community-based organizations have created innovative technology applications to share local content. These pioneering organizations overcame several significant barriers -- limited resources, minimal internal capacity, lack of supportive policy, and technologically ambivalent cultures -- to use information technology to advance their missions of social and economic equity. In turn, these applications provide us with a vision of future community building, where organizations and residents are using locally-

relevant content to improve the quality-of-life in low-income neighborhoods. This section of the paper highlights the challenges facing the nonprofit sector in using technology and capacity building assistance for publishing local content.

Nonprofit Organizations are Slow to Adopt Technology

As the digital divide gained national attention throughout the late 1990s, the nonprofit sector recognized that it was experiencing a technology divide of its own. Few nonprofit organizations had the resources or capacity to maintain computer systems and create new community-based applications. In response to this “organizational divide” several nonprofit technical assistance (TA) providers and technology TA providers created the National Strategy for Nonprofit Technology (NSNT). In 1998, NSNT, a leadership network of nonprofit staff members, funders, and TA providers, developed a blueprint for how the nonprofit sector can use technology more effectively and creatively. The blueprint noted that,

...Most nonprofits are hesitant to use technology and are ill-informed about the impact it could have on their work, that funders are reluctant to invest in efforts that seem unrelated to program delivery, and that technology assistance providers are ill-equipped to provide the kind and scale of support necessary to transform the nonprofit sector’s use of technology. Also, research indicates that there are disparities in nonprofits’ access to and use of technology – namely, that many nonprofits in low-income communities and in communities of color are underserved with respect to technology acquisition and use.⁴

⁴ National Strategy for Nonprofit Technology, 1998.

NSNT also notes how the nonprofit sector has been penalized for failing to be an early adopter of technological innovations. These penalties include: the inability to meet potential increases in service demand, the loss of funding due to inability to demonstrate program outcomes, the inability to compete with for-profit enterprises, and the inability to communicate effectively with their constituencies. The most devastating impact of not being able to adopt these new technologies is that most nonprofits are distancing or isolating themselves from the new economy.⁵

Trabian Shorters of Technology Works in Washington, D.C. has also noted the ambivalence of the nonprofit sector to fully utilize technology. Shorters developed a classification system for understanding “technology cultures” in nonprofit organizations. Organizations, regardless of mission, budget or size, tend to classify technology in four distinct categories:

Unnecessary: failing to see the benefits of technology and avoiding it as much as possible. No Internet access and limited computer use.

Necessary Evil: having a limited use of technology. Limited Internet access and limited computer use.

Necessary Good: viewing technology as a necessary part of their work. Internet access and computer use.

⁵ Shorters, 1999.

Strategic Advantage: believing that their effective use of technology will give them strategic advantage. Using both the Internet and computers as strategic tools.

Most community-based organizations are in the “Necessary Evil” stage of evolution and still have a long way to go before technology will become part of their strategic tool kit. This is confirmed in a 1999 study by Wired for Good, where Silicon Valley nonprofits were asked to name the three most frequently used methods of communication. The top three responses included telephone (77%), in person meetings (70%), and hard copy memos (45%). Email was near the bottom of the list at 28% and sharing files across a computer network ranked even lower at 18%. Thus, an enormous capacity gap around information technology in the nonprofit sector has developed.

Technology Technical Assistance for Nonprofit Organizations

In response to this lack of capacity in the nonprofit sector during the rise of the Internet, a constellation of technology TA organizations emerged around the country. By 2000, most traditional nonprofit technical assistance providers offered technology services and new organizations, were being formed, which were focused on providing technology assistance,⁶.

Together, these two types of organizations have become a new infrastructure to support the use of technology by the nonprofit sector.

This capacity building infrastructure is comprised of two primary levels of service: national and local. National groups such as National Council of Nonprofit Organizations, CompuMentor, the

⁶ In fact, building the technical capacity of nonprofit community-serving organizations precedes much of the conversation around the digital divide, as traditional nonprofit TA providers have maintained technology-based TA programs for decades.

Benton Foundation, the Rockefeller Technology Project, the Progressive Technology Project, OMB Watch's Nonprofits' Policy and Technology Project, and the National Strategy for Nonprofit Technology tend to play research and clearinghouse roles and connect nonprofits to local service providers that can provide direct assistance. In some cases, these organizations provide direct service (CompuMentor) and support public policy campaigns (the Benton Foundation). At the local level, programs like CompassPoint (San Francisco), Npower (Seattle), and TechnologyWorks (Washington, D.C.) provide service through dispatching staff to organizations, linking technicians to organizations and offering technology courses for organizations.

Technology Technical Assistance Providers National and Local Examples (Box 2)

CompuMentor (www.compumentor.org)

CompuMentor, based in San Francisco, California, is among the largest and oldest national nonprofit computerization assistance organizations. Since 1987, CompuMentor has served over 23,000 nonprofits and schools with a range of person-to-person computer services. These include matching skilled volunteers with schools and nonprofits, technology planning (TEAM) and consulting. The organization recently launched TechSoup.org a one-stop information resource for nonprofit technology issues. TechSoup provides information on hardware, finding the right software application, guidelines for selecting an appropriate database, planning your organization's network, and how to get funding.

NPower (www.npower.org)

NPower is a regional nonprofit technology assistance provider serving the Greater Puget Sound area. The organization operates on a membership bases with dues calculated on a sliding scale, depending on an agency's budget. Services include: technology assessment and planning, technical assistance for application development, basic training classes for staff, volunteer matching program, resource library and community events. NPower partners with regional and national TA providers to build the capacity of the region's nonprofit sector.

Much of the technology technical assistance has been made available on a "build-it-and-they-will-come" basis, where community-based nonprofits are expected to seek out the TA providers and request the services needed. However, many nonprofit organizations have not traditionally used information technology as a tool to promote their work and have not been exposed to the

recent innovations and potential of the Internet. In many cases technology is often considered in isolation from or in competition with other program tasks rather than as a tool that can support all of the organization's work. For example, many nonprofits are not aware of training labs in their own neighborhoods or TA providers at either the local or national levels. This isolation may lead organizations to acquire the wrong technology and training that leads to further frustration and greater isolation from using technology as a tool. As the technology TA field matures, more outreach is needed to community-based nonprofits and community groups need to be exposed to the benefits of information technologies.

Community Technology Centers – An Emerging Source of Technical Assistance

In addition to being one pillar of the digital bridge, the nation's access-centered policy approach has supported a powerful and new institution in low-income neighborhoods -- the community technology movement. In almost every low-income community across the country, you will find at least one computer training lab that provides free or low cost access to and training on computers and the Internet. However, many of these community technology centers (CTCs) have been created independent of the traditional community infrastructure with missions more closely tied to technology access than neighborhood revitalization. In effect, the community technology movement has tended to focus on an equitable diffusion of technology in low-income communities, while the community building movement has tackled social and economic inequity without the help of technology. However, these two movements have the experience and wisdom to use technology as a tool to advance an equity agenda.

While access and training are still at the forefront of many CTC programs, some community technology efforts are providing resources beyond access and have connected to larger neighborhood revitalization efforts. In a few cases, mature CTCs have provided technology capacity building assistance to community-based organizations. CTCs have also become leaders of community building activities. Examples of this work include CTCs at the head of projects around government and democracy; health and human services, educational services; community involvement; quality of life information; discounted access to the information; economic development; and job training. Many of the connections between community builders and community technology have been developed in the absence of policy and have demonstrated the important role for CTCs in strengthening the existing community infrastructure.

IV. Community Based Technology Content and Applications

Despite the fact that the community based nonprofit sector has been slow to adopt technology, our case study research indicated that there are examples of innovative community based organizations using technology as a strategic tool to support their work⁷. These entrepreneurial organizations have overcome a variety of challenges and utilized several mechanisms to support their efforts to incorporate technology into their programmatic activities. While not an exhaustive list, the box below highlights six ways in which community based organizations are utilizing technology.

How Community Serving Organizations Are Utilizing Technology (Box 3)

Advocacy/Online Organizing. Digital technologies are effective tools to support and enhance advocacy and organizing efforts. Email list serves, facilitated discussion lists, online action alerts, and other IT tools, help non-profit organizations communicate with their constituencies, policymakers, and other key stakeholders. Online advocacy efforts are most successful when they promote or build upon offline activities.

Community Information Clearinghouse. The World Wide Web is an effective vehicle for gathering and disseminating information. Community serving organizations are using the Internet to develop and share localized and issue specific information with their constituents or other stakeholders interested in their work.

Online Communities/Networking. One of the most effective uses of IT tools is to facilitate coordination of activities, improve communication and build/strengthen relationships. Community serving groups are utilizing a variety of resources such as email, websites, Virtual Private Networks (VPN) to work collaboratively with other organizations and their constituencies. In the process they are building online communities that enhance and support their offline networks.

Innovations in Service Delivery. Just as information technologies are leading to productivity gains in the private sector, IT tools can be applied in the nonprofit sector to improve the delivery of social services. For example the strategic use of technology can streamline service delivery, assist social service organizations serve a larger number of constituents, and collaborate across organizations.

Interactive Database development. The Internet is increasingly moving towards interactivity, with complex backend databases allowing users to create individual online experiences by accessing information that is customized to their needs. Community serving organizations are using interactive databases to assist their constituencies in finding employment, community assets, and other local information.

Community Mapping. Geographic Information Systems (GIS) is a computer system that assembles, stores, manipulates, and displays geographically referenced information. GIS and other information systems help identify and organizing data according to location. These IT tools are increasingly being used by nonprofit organizations for public policy development, neighborhood planning, advocacy, and research.

It should be noted that the six identified areas are broad thematic categories of how technology can be used to promote equity, and that there is often great overlap between these activities. For example, the information gathered through a community mapping process may be an important tool in an advocacy campaign, or a community information clearinghouse might be powered by an interactive database to provide material to its constituents. It is also interesting to note that using technology to support advocacy or information dissemination are often the entry points for community based organizations, with the more advanced functions such as community mapping and interactive database development often occurring later in the technological evolution of an organization.

The table below highlights ways in which community based organizations are using technology to strengthen their work and promote equity.

Innovative Community Based Organizations Using Information Technology

Type of Activity	Organization	Issue Area	IT Tools
Advocacy/Online Organizing	Welfare Law Center, Community Voices Heard, Make The Road By Walking	Welfare reform, promoting participation by low income communities	Website, list serves, Internet, training, technical assistance
	1000 Friends of Oregon	Urban sprawl and other environmental issues	List serves, email, other electronic tools
Information Clearinghouse	CDC Network	Community development, affordable housing	Internet, email, online resource bank, other e-business tools
Online Communities/ Networking	Grace Hill	Building social capital, neighborhood revitalization	Web-based Time Dollar Exchange system, computer mentoring, online resource bank
	Technology Access Foundation	Organizational development for youth serving agencies	Virtual Private Network (VPN)
Innovations in Service Delivery	Sexual Assault Crisis Center	Support services for survivors of sexual violence, advocacy	Online support group (similar to a "chat room")
Interactive Database Development	East Bay Works	Employment and training services	Web based data systems, online job training resource bank, individualized email accounts
	Cabrini Connections	Tutoring and mentoring	Web based data systems, GIS technologies, resource bank mentoring services and best practices
Community Mapping	Neighborhood Knowledge Los Angeles	Neighborhood revitalization, advocacy, public policy	Interactive Electronic Monitoring System, GIS, training for residents
	National Neighborhood Indicators Project, Boston Community Building Network	Neighborhood development, community building	Various information systems including GIS, resource banks, interactive databases

While our complete analysis contains case studies for each of the organizations above, we have highlighted one case within the *Community Mapping* typology and one within the *Online*

Communities/Networking area as examples of how a community organizations are utilizing technology.

Community Mapping

Neighborhood Knowledge Los Angeles (NKLA), a project of the UCLA Advanced Policy Institute, the Community Development Information Coalition, and a host of city agencies and non-profit organizations, provides residents of Los Angeles with localized information about their neighborhoods. The NKLA website integrates several databases to develop an Interactive Neighborhood Electronic Monitoring System (NEMS), which allows visitors to view comprehensive information on individual properties or neighborhoods. For example, residents can view information about tax delinquencies, code violations, utility liens, and other signs of property neglect, allowing them to develop strategies to improve local living conditions. A community asset mapping component helps residents to identify and build upon community strengths. Census demographic information, as well as the ability to conduct advanced queries such as, “how many properties in my zip code are tax delinquent and have code complaints” is also available. To insure broad community involvement, there are English, Spanish, and text only versions of the NKLA website. NKLA also provides training to residents on how to use the community information they find on the website as a tool for neighborhood change. As government agencies increasingly make raw data sets available online, NKLA can localize and contextualize this information in a manner that makes it relevant to community residents.

The NKLA project is an innovative example of how community leaders and residents can use information technology tools to strengthen neighborhoods. Rich and detailed information about their communities, allow residents to hold government officials accountable, have timely information about neighborhood decline, and to craft strategies for neighborhood improvement that are well informed. In addition to strengthening community development activities, this powerful IT application also offers a new, community-driven model for research and public policy development. The technical knowledge of the university, coupled with the deep local knowledge of the community partners, were essential to the success of the NKLA project.

Online Communities/Networking

Founded in 1903, **Grace Hill** is a neighborhood development organization serving disadvantaged communities in the St. Louis metropolitan area. The organization bases its work on the self-help tradition of the Settlement House movement and strives to: (1) work for social change within society to foster greater support and understanding of the disadvantaged; and (2) work in disadvantaged neighborhoods to create strong, healthy, helping communities by encouraging and supporting neighbors as they help themselves and others.

Grace Hill’s Member Organized Resource Exchange (MORE) is an example of “neighbors helping neighbors” approach to community change. The MORE Time Dollar Exchange is a community based network of services that can be exchanged like currency between neighbors. The MORE system allows neighbors to earn and save “time dollars” when they volunteer their services to one another. The computerized tracking system allows Grace Hill to monitor and track activity while providing participating residents with a monthly report of Time Dollars earned and owed. Services bartered between neighbors under the MORE system include: auto repair, childcare, gardening, photography, tax assistance, transportation, tutoring, writing, etc. The MORE Time Dollar system is an IT application that supports Grace Hill’s approach to providing services, one that is based on the belief that neighbors have both natural and learned skills. The time dollar approach was first implemented in 1982 and its accounting system was maintained by Grace Hill staff on index cards. In 1985, the time dollar system was computerized. This allowed staff to more easily update, categorize and share information about residents’ skills and abilities. The automation led to a massive increase in number of residents that participated in MORE Time Dollar Exchange.

In 1995 a TIIAP grant (now referred to as TOP from the Department of Commerce) facilitated a third upgrade to the Time Dollar system. TIIAP funds were used to upgrade existing computer systems and establish a network of personal computers in agencies and public sites throughout the Grace Hill service area. This led to a significant increase in participation in the Time Dollar program, since residents were now able to access their accounts without the assistance of Grace Hill staff. Over time, Grace Hill has expanded the Time Dollar system to include a comprehensive online resource bank of services available in the St. Louis metropolitan area, as well as a geo-spatial mapping of community resources and assets.

V. Next Steps: Strengthening The Community Infrastructure With Information Technologies

We are at a critical juncture in the evolution of digital divide public policy. We have made significant advances in creating access points for marginalized communities, but also realize that access alone is not going to bridge the digital divide. If the United States continues to primarily support access policy, we are at the risk of building digital bridges to nowhere – a national network of computers and trained residents with little reason to use information technology. In fact, a new generation of programs and policies are needed to utilize technology as a tool for building strong communities. Three integrated components -- universal access, community driven content and locally relevant applications -- will promote empowerment and ownership opportunities for low income communities. Community based organizations, the gatekeepers of the community infrastructure in marginalized neighborhoods, must be key actors in the development of community relevant content and applications.

At this juncture we need a new digital divide policy framework that builds the capacity of community based organizations to effectively utilize technology to promote and support their missions. This paper suggested how this could be achieved through entrepreneurial efforts of community based organizations to create and publish relevant online content.

In order to bridge the digital divide, as a nation we need to move from scattered local successes of community based organizations utilizing IT as a strategic tool, to building a vibrant community infrastructure that creates dynamic content and applications. Various supports are needed to address the barriers facing community organizations and create an environment that

promotes the use of technology as a tool for empowerment. Some areas where program and policy supports need to be implemented are presented below.

Capacity Building. Building the technological capacity of community-based nonprofit organizations is an important step to bridging the digital divide, as these groups have the deep knowledge of local communities necessary to develop content and applications. Also, as community organizations build their technology capacity they develop the ability to secure new resources; modify their cultures that are ambivalent to technology; and influence future policy. Some strategies to build the IT capacity of community organizations include:

- Forge strong relationships at the local level between community builders and community technology providers. To support building connections between these two movements, policies and programs should: (1) create venues for collaboration; (2) identify concrete areas where links can be made (e.g., job training, economic development, etc.); and (3) develop intermediaries that facilitate relationship building and garner resources for support.
- Develop opportunities for collaboration between technical assistance providers and community based organizations by: (1) increased outreach by TA providers to community groups; (2) forums that create opportunities for mutual learning; and (3) programs that fund and support such capacity building relationships.

Resources. Increased financial resources are needed to assist community based organizations' efforts to develop content and applications that strengthen their programmatic work. Too often

limited budgets force organizations to choose between technology and other activities, whereas technology is a tool that can support a range of activities. Some policies and programs that would increase the resources available to community based organizations for IT tools include:

- Increasing funding dollars for programs such as NTIA's Technology Opportunities Program (TOP)
- Create new federal, state and local funding streams that support the use of technology by nonprofit organizations
- Direct private sector funding for digital divide efforts to support community groups build their technological capacity
- Foundations fund technology components to the various community initiatives that they support

Public Policy. While the federal government has contributed hundreds of millions of dollars to create a supportive technology infrastructure, community based organizations have been a minority player in most federally sponsored initiatives. Federal, state and local policies must be reshaped so they are more aligned with the technology needs of community-based organizations, and promote the development of content and applications by local communities. Three federal mechanisms to support the next phase of digital divide programs include:

- Expanding the mission of the Technology Opportunities Program to emphasize content and IT application development
- Expand the E-Rate program so that community based organizations can benefit from telecommunications discounts.

- Insure that innovations in broadband technology are extended to community based nonprofit organizations.

Culture of Use. In order to develop the content and applications necessary to bridge the digital divide, community organizations must shift their thinking and view technology not as a “Necessary Evil” but as a “Strategic Advantage.” Strategies that promote a culture of use in community based organizations, and the disadvantaged constituencies they work with, are critical. Some activities that promote a culture of use include:

- Developing stronger and deeper linkages between technologists and community builders so that awareness of technological impacts are better understood by community based organizations.
- Developing an inventory of community based applications, along with technology descriptions that illustrate how IT tools can be used as a tool for social change.
- Creating online and offline opportunities for community based organizations to share knowledge and experience around developing content and applications.