

**COST,
UTILITY,
& VALUE**

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ACCESS *by Design*

TECHNOLOGY IN SERVICE TO COMMUNITY

ACCESS BY DESIGN

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Cost, Utility, and Value

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The computer won't feed me.

—Community Organization Member

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There are many good reasons for community organizations to use technology—it can help staff use their time more efficiently, streamline communication, and provide ready access to critical information. For those agencies that serve people who have had limited opportunities in education and employment, providing access to technology can be an equalizer, a tool for social justice and expression of voice, a means for individual advancement, and an essential connection to information, knowledge, and commerce. The belief that without technology individuals and groups will be “left behind” offers further motivation for many organizations to integrate technology into their systems and services.

The financial investment in technology can be significant, however, and there may be other social, ecological, and political costs as well. When planning for technology, it is often useful to identify the range of potential costs to your organization and your community, and make sure they don't outweigh the potential benefits.

The purpose of this paper is to share reflections from groups across the country that may help you identify your own issues, and to suggest some questions that can help you think through those issues. While the dilemmas presented here are perplexing, many organizations find manageable solutions. We have included some examples from the field to illustrate situations where cost, value, and utility seem to be in alignment.

Dilemmas and Obstacles

1. How much the technology costs in real dollars

The financial outlay is substantial and includes the human as well as financial infrastructure. The new technologies often require a significant initial investment, additional monthly charges, a new and permanent line item in the operational budget, new staff, and a serious investment in staff development. Community organizations often survive on budgets that have little to spare. They typically have limited discretionary monies and rely primarily on grant funds that rarely support operating costs or capital improvements. Although the cost of digital equipment continues to decline, there is a difference in thinking about cost for the individual consumer, who buys one machine and a connection to the Internet either through a phone or cable line, and an organization that may need to buy multiple work stations or pieces of equipment, set up a network, buy and maintain a server, and train and sustain an entire staff.

Among the community organizations that seem to have succeeded in raising the necessary dollars are those for which technology access and skill development are directly related to their mission. In affiliates of the National Urban League, for example, the push for technology is completely consistent with the League's mission. The original mission was to help African Americans moving from the post-Civil War agricultural South make the transition to the industrial economy of the urban North. The contemporary version, a hundred and some years later, is to help inner-city, poor, and minority persons make the transition to the technological economy—and to avoid or minimize the gap in access and opportunity that existed in the earlier transition. This consistency with mission appears to result in an energetic and aggressive stance toward fundraising as well as a relative lack of ambivalence about the technology itself.

2. Scarce resources and competing priorities

Groups often face difficult choices between pressing survival needs and longer-term community development. As young people from YouthBuild, USA sites across the country noted: “On the one hand, computers seem frivolous compared to shelter, food, and jobs; on the other, the new technologies may be essential to creating viable and sustainable communities.” A seventeen-year-old Mexican-American daughter of a migrant worker remarked, “Will you eat or will you have technology?”

Hector Calderon, a staff member at El Puente in the Williamsburg section of Brooklyn, says of his community, “The Digital Divide is a Grand Canyon here. Two-thirds of the people are on public assistance, and the idea of having computers is way way last on their priorities.”

Tackling these competing priorities head on, the Coalition for the Homeless has figured out ways that technology can be used to reconnect people to the mainstream, and ultimately to the food, shelter, and jobs that are core survival needs. Through the Community Voice Mail program, the Coalition assigns a seven-digit phone number to people without access to basic telephone service, so they can receive messages on what sounds like a regular answering machine. They can get calls from potential or current employers, lawyers, doctors, and service providers, who hear a professional-sounding message that gives no indication of the person’s homeless status. In fact, executive director John Sanful identified clients as “phoneless” rather than “homeless,” avoiding the stigma often associated with the homeless label. Thus the technology supports the Coalition’s efforts both to provide practical connections to employment and support, and to reestablish mutual respect and the right to human dignity as core social values.

3. Is it really better?

People wonder whether the new tools will significantly improve what folks do now with simpler equipment and personal interaction. “Nothing beats one-to-one, face-to-face,” asserted community organizer Milly Bonilla, who runs a parent group that advocates for better education in the public schools.

Sometimes, though, the newer modes of communication may in fact serve to advance a community’s development. Darrell Waldron, executive director of the Rhode Island Indian Council, told of a conflict arising from the Native American Graves Repatriation Act, which provides for the return of ancestral bones taken by scientists and museums to the Indian tribe or nation of origin. It is not always clear who is the rightful recipient, and Waldron was asked to mediate a dispute between two groups. The dispute dragged on, and the town’s mayor and municipal staff—all non-native—got involved in the negotiations and decision-making. Waldron reflected that email might have made more frequent, private contact within the Indian community possible, allowing them to resolve the conflict among themselves and strengthening the native community.

4. Conflicting values

The familiar refrain that technology eliminates jobs has a slightly different ring among some of the community groups we interviewed. One group put off buying a printer as a more efficient way of addressing envelopes and getting out mailings because it would replace the labor of community members. They were also concerned that it would remove an important social gathering from the life of the community. They did finally purchase a printer, after they had figured out how to offer alternative jobs and gathering opportunities. Thus, the move to efficiency did not result in a loss of community interaction or development.

The Center for Anti-Violence Education, a women's self defense group in Brooklyn, values its open floors and the environment the light and space create for the women who come to learn how to stand up for themselves, leave abusive relationships, or protect themselves on dangerous streets. The Center has opted to use the fax machine in the office next door rather than give up their one tabletop or add other technology that might make their fundraising easier, but would impinge on the freedom that the open space offers to the women they serve.

Yet technology can also support the values of an organization. The Eureka! Teen Achievement program, an informal summer science program that promotes equity and opportunity for girls and young women, offers one example. Seventh- and eighth-grade girls learning marine biology attach probes to computers they use during summer break in Brooklyn College classrooms to collect data about water drawn from nearby Jamaica Bay. They record the data in a common database and consult with marine scientists who design and implement controlled experiments using the same technology. Girls get experience using scientific tools, which is one of the factors related to science participation and one of the areas in which girls have historically had fewer opportunities than boys.

5. Concern about impact beyond the immediate

"Technology comes with a price," says Darrell Waldron, "and I think we need to take a look at what technology is costing us in natural resources. Part of the Indian philosophy is that when you make a decision for your future, you make that decision based on the seven generations of children who are not

yet born. Will that decision be a benefit or a sacrifice for them?” Says Martín Espada from El Puente Community Center in Brooklyn, “There are certain devices that are totally great inventions—like the bicycle. But there are others that are completely inefficient, like automobiles, that are going to result in the world being paved. Looking at each, we have to ask, is it causing more harm than good?”

These environmental concerns are more difficult for community groups to reconcile, and there seem to be no easy answers at this point. We don’t have a counter story to offer, except to say that you may want to acknowledge these issues and keep them in mind even as you decide to move forward.

What Can Community Organizations Do?

Careful reflection can help you figure out a reasonable course of action that supports your community’s needs and values and enables you to make informed decisions about how to raise—and advocate for—the necessary funds. This process is not foolproof; things are still changing rapidly and may be years away from settling down. If you do decide to proceed, here are a few places to begin:

1. Start by identifying what you want, need, and value.

The clearer you are about what’s important to you in relation to community values, organizational mission, and ways of doing things, the better able you’ll be to anticipate, prevent, or resolve potential conflicts. Consider holding a community conversation to begin the process (see the Access by Design publication, *Technology in Your Community: a Community Conversation Guide*, for suggestions).

2. Find people with expertise to offer.

You may want to identify some consultants and advisors who can help you think about your own needs, what different technologies can do, and what the true costs of acquisition, setup, training, and maintenance will be. See the Access by Design publication, *Working with Technology Consultants*.

3. Consult with advisors, visit other organizations, and ask:

- Can technology help you do something better? What does “better” mean for you? What would be useful to do? What does “useful” mean for you?
- Will technology expand your capacity? How? What capacity do you already have? What would it build on, capitalize on? What slow or inefficient processes would it replace? What would you lose if you replace those inefficiencies? Think about what would have to move or change, in the space or in the way people talk to each other or do things. Are these expendable?
- How do you think the technology might honor, enhance, or expand what you care about? In what ways might it conflict? What do you want to be sure to protect? What matters less to you?
- What do you anticipate would be the benefits
 - To the organization?
 - To the community?
 - To your audience, purpose, mission?
 - To the environment, future generations?
- What are you worried about, what might be the negative effects
 - On the organization?
 - On the community?
 - On your audience, purpose, mission?
 - On the environment, future generations?

4. Estimate and don't underestimate costs.

You'll do yourself a disservice if you talk yourself into believing that this will cost less than it actually will. Figure that you'll need to provide for:

- An initial outlay for the system you want to put in place—equipment and connections
- Monthly charges for being connected to the Internet
- Ongoing maintenance budget—probably an additional line in your operating budget.

The current wisdom is that you should spend 30% on equipment and 70% on the human infrastructure—staff and staff development. So you need to add estimates for:

- Staff responsible for the technology—acquisition, upgrading, and technical support
- Initial staff training in how to use the equipment and begin the process of integrating technology into the organization
- Mechanisms for training new staff as they join the agency
- Ongoing staff training for integrating technology into programmatic and educational activities.

The training costs will also depend on what you are using the technology for. Beyond the basics, different purposes require different kinds of training and support. A couple of training sessions and some degree of troubleshooting tech support can probably suffice when you computerize your office and administrative functions. But using technology as part of an educational program, whether in schools or afterschool organizations, will probably require ongoing training and opportunities for teachers/leaders to support and advance one another's learning.

5. Compare costs and benefits.

Take some time to analyze what the advantages and tensions might be. Some people find charts or graphic organizers helpful, listing costs in one column and benefits in the other, perhaps in relation to systems within the organization (e.g., communication system, financial management, fundraising and development, curriculum and program, atmosphere and environment, professional development) or in the community (e.g., jobs creation and community development, health and environment, educational opportunity). Be sure to include costs and benefits that are not financial. For example, some people may be concerned that virtual educational experiences will be a poor substitute for hands-on activities, while others might point to the potential advantages of involving young people from a range of backgrounds and geographic locations in joint problem-solving adventures.

6. Finding the money and planning for the future.

Chances are you'll need a short-term plan as well as a long-term plan. Figure out what resources you can acquire in a limited time period, and what equipment and training is most important to put in place right away. Buy some time and get some experience as you develop a more comprehensive approach. Scan the funding horizon to determine the likelihood and level of support you can expect for this venture. Might your regular funders consider a one-time capital request? Are you eligible for state or federal initiatives that have been providing support for community groups to build technological infrastructure and conduct professional development? Can you come up with strategies for funding ongoing maintenance, which funders have been less willing to supply? For example, you might add a line to your budget for computer maintenance or depreciation based on an estimate of how much it costs each year to maintain and upgrade your system (e.g., \$1500 per person per year).

*Technology
is a Tool*

The real key here is to be thoughtful about the advantages and consequences of embarking on different levels of involvement with digital technologies. Technology is simply a tool. At its best, it offers you a way to extend your capacity. Being mindful that there may also be costs can help you determine whether and how to use technology to advance what matters to you and your community.

About Access by Design

In 1996, Education Development Center, Inc./Center for Children and Technology, the American Association for the Advancement of Science, and Campbell-Kibler Associates, Inc., began a research and action project about the equity issues in technology. We conducted interviews with community leaders and organizations in more than 50 places across the country, in small and large cities, in rural areas and Indian reservations, with people from a range of ethnic, language, class, and racial groups. We spoke with people with disabilities and disability rights advocates, representatives from industry, community leaders and activists, youth workers and educators, funders and policymakers. We worked closely with a number of community-based and national organizations to examine the issues related to technology access, including how technology is designed and how well—or poorly—it serves diverse communities. Our partners included the Progressive Baptist Church in New Orleans, the Rhode Island Indian Council, El Puente in Williamsburg, Brooklyn, the Oyotunji African Village in South Carolina, the Accommodation Resource Center at the University of Nebraska–Lincoln, the Young Scientists Club in East Harlem, New York, the Collaborative Visualization (Co-Vis) project of Northwestern University and their afterschool career program at the Kelly High School in Chicago, and the Innovation Center for Community and Youth Development of the National 4-H Council.

The work began much earlier, however, among educators and activists in a variety of settings, including the Center for Children and Technology (CCT), established in 1980 at Bank Street College of Education and now part of Education Development Center. In pursuing how the new computer technologies could best support teaching and learning, researchers at CCT became aware of inequities in access and decisions about design that favored some groups over others, noticing first the gender issues and subsequently race and disability concerns. Yet even by 1996, relatively little attention and few resources were being dedicated to these concerns.

Access by Design was an attempt to gather together educators, activists, policymakers, and industry representatives to build awareness and action for increased equity and diversity in technology.

The products from this effort include materials for community leaders and organizations, as well as a report and action agenda based on the interviews, meetings, and policy efforts conducted from 1996 through the beginning of 2000.

