

## SUCCESSFUL TECHNOLOGY USE IN SMALL GRASSROOTS NONPROFITS

### Introduction

*“Technology is like the air we breathe.”* This quote from one of our respondents highlights how essential technology has become to the survival of small grassroots nonprofits. They are no different from any other modern organization — they depend on technology to accomplish their mission. Even the smallest nonprofit is expected to maintain a website, have a telephone system that can transfer calls within the organization, and produce reports on a computer. Beyond this, innovative nonprofits use technology in novel and important ways, such as mapping the location of farm worker houses using handheld global positioning devices or creating a global peace community through the internet. In their effort to fulfill their mission, small grassroots nonprofits find both opportunities and pitfalls associated with the demands of technological integration.

This research examines how small nonprofits use technology and what it means for a nonprofit to use technology successfully. We discuss factors that help and hinder nonprofits’ ability to incorporate technology as a basic part of their operations. We consider how these small nonprofits learn about, acquire, use and improve technology to achieve their missions.

Our findings are based on interviews with 28 nonprofit organizations in California: nine in Southern California, nine in the Central Valley and 10 in the San Francisco Bay Area. Our choice of the three regions was dictated by assumptions about the sophistication of the technological resources available to the nonprofits in the different regions. We assumed that the San Francisco Bay Area was particularly rich in such resources, followed by Los Angeles, and that the Central Valley would have much less support. Interviews in the San Francisco Bay Area were conducted in person, while executive directors and others were interviewed by phone in the remainder of the state. We asked about how nonprofits decided on what technologies to use, how they acquired the resources to implement technology, experiences in training staff and other users, and the lessons they had learned.

All the nonprofits in this study had less than \$1 million in annual revenues, in most cases considerably under this amount. The missions of the organizations varied widely — some were involved with the rights of immigrant communities, some with farm workers and some with people with disabilities. Several worked on housing or criminal justice issues and two were involved in international activities. (See appendix for a complete list of the types of organizations interviewed.)

Our findings show a gradient of success for small grassroots nonprofits. Following a discussion of the varied examples of successful technology utilization, we identify internal and external factors that influence the success of technology utilization, provide examples of accessing necessary resources, and add a note about regional differences uncovered in this research. Our conclusion reflects on the implications of this research for nonprofit staff, nonprofit technology assistance providers, and funders.

### FINDINGS

#### What Technologies are Small Nonprofits Using, and How?

While the staff of the smallest of the nonprofits we talked to might still primarily operate out of their homes, all had access to computers, printers, e-mail and the internet. For those nonprofits that conducted their work out of offices, all had at least a basic phone system, with the capacity to transfer calls within the system. Most had a copier and many had cell phones to connect staff in the field to the home office. The majority networked their computers. This shows that technology advances that as recently as 10 years ago were seen as luxuries are now standard.

Beyond using desktop computer applications and communications systems, nonprofits used technology in innovative ways to fulfill their missions. A number of them used video cameras to document their demonstrations and other activities and then used the documentaries for political organizing and at public hearings. Several organizations tutored low income youth in video production and/or advanced web design so that they could create art and tell their stories. An educational tutoring organization was in the process of creating a solar powered computer bus to go to schools with limited computer resources. Another used software to target their organizing efforts by mapping social networks to create a picture of the linkages among slum

landlords and slum housing. The same nonprofit also used online collaboration software to share information with partner organizations. One advocacy group customized geographical information systems (GIS) software so that community leaders and organizers could use maps to graphically make their case in city council and other meetings. Another nonprofit developed a website to match volunteers in one county to another county where there were fewer people with similar politics. Yet another used message boards to network peace activists from around the world.

#### Innovative Uses for Technology

- Using video to document demonstrations
- Teaching kids digital media tools
- Mapping social networks among landowners
- Using a bus powered by solar panels to bring computers to schools
- Identifying need by location and mobilizing volunteers

Many of the nonprofits that we interviewed used technology to perform their work efficiently and to save money. A number of organizations used online newsletters and e-mail blasts to efficiently and inexpensively communicate with their constituents. Some used desktop graphics tools to design their own materials in-house and self-publish

reports, reducing design and printing costs. Several of the advocacy organizations relied heavily on the internet to research issues of concern to their members.

While some technologies had been successfully incorporated into the operations of the nonprofits, other technologies were problematic. For example, a number of the nonprofits had websites, but they were years out of date because they had been set up by volunteers who were no longer with the organization. Furthermore, many of the nonprofits knew that there were more efficient ways to accomplish basic tasks, but lacked personnel or time to set up the technology. One nonprofit struggled with simple tasks such as mail merges, while another let donor software sit in the box, and a third organization could not automate the production of an online newsletter. In these cases, the nonprofits did not have the staff time to set up, learn and use the software that could have helped them perform basic tasks more efficiently.

What differentiated the nonprofits that were successful in using technology from those who were not? To answer this, we need to first ask what is meant by success. We then identify the internal and the external factors that contribute to the successful use of technology by small social grassroots nonprofits.

### What is Meant by Success?

There are many components to success. The ability to install and get technology to work is the first measure. Knowledge of or ability to research available technology and how it might assist the organization is the second component of success. A third component of success is the ability of the organization to adapt existing technology to its needs. Success, finally, is dependent on the end user: technology must meet their needs and fit into their ways of working and communicating.

At its most basic, success for small nonprofits simply meant the ability to actually use the software and hardware that they had. Several nonprofits we interviewed bought software but never had the time to learn it, in one case not even loading it on a machine. Others struggled with getting the technology to perform as intended. One organizing group of congregations abandoned its plans to operate a wide area network, because of the unreliability of internet services in the areas where its member churches were located. Yet another organization struggled to maintain a reliable e-mail service.

Success is secondly the ability to identify what technology is needed to accomplish necessary tasks. Several disability organizations, for example, took advantage of existing technology designed to permit sports activities or computer and phone access for the sight and

hearing disabled. Their staff was sufficiently knowledgeable that they could recommend what equipment would work best in light of the actual needs of staff and clients. An after-school tutoring program knew what software would assist learning and fit into the school curriculum. Several nonprofits that trained students in graphic media and film production had strong understandings of the types of equipment and software necessary so that students could learn to use the most current technology.

Success is also the capacity to modify software and hardware to meet new needs. Several nonprofits had not upgraded or even updated their websites since they were initially created, since no one on staff had the time or expertise. Another nonprofit never had the time to learn how to automate sending out their email newsletter in batches to bypass their internet service provider's junk mail filters.

In dramatic contrast, successful nonprofits took advantage of diverse resources to improve existing applications. An immigrant advocacy and service organization we interviewed was in the process of converting their site to open-source software, so that they could use a package of applications and take advantage of some advanced features. A rural assistance program worked with a provider of user-friendly GIS mapping software to make their applications useful to farm workers.

Success is also built on understanding the technology well enough to know what not to do – knowing, for example, that it is not worthwhile to fix an old printer when a new printer will cost only slightly more and will function better. Success can be in the recognition that using older technology may be appropriate because of the technological resources of the community who will use it. A nonprofit that distributed solar cooking devices, for example, deliberately used technology that could be reproduced using locally available materials and skills.

These notions of success primarily involve acquiring and using technology. A more important issue is how technology enables the nonprofit to accomplish its mission. This is a multilayered concept. Basic operations for any organization now require technology – phone calls must easily go to the correct party, documents produced and finances managed. The next level of successful technology use in nonprofits is in effective communications with donors, clients, funders and the larger community to effect desired outcomes. Websites that are well designed, simple to navigate, informative and easy to find using search engines bring individual donors and funders to the organization and inform clients or members about available services and resources. Video cameras can document community actions or the work of the nonprofit and be used in presentations.

We should point out a difference between nonprofits with a technology-based mission, and those who use technology to accomplish a broader mission. Examples of the former include a nonprofit that refurbishes computers and gives them to students, one that teaches low income youth to do digital animation and photography, or one that provides solar powered cooking equipment to women in countries where fuel is scarce. Examples of the latter include a nonprofit that used an online forum to create a discussion on peace in the Middle East or another that provided a website where people either offering or needing physical assistance could find each other.

Success also means that the intended community is receptive to the technology, that community members make use of the technology, and ideally that they can take ownership and help adapt the technology to better fit their needs. It does no good to have an online discussion board if few people ever use it, for example. It also does no good to train community members to use the computer if they are intimidated by the computer, and realistically cannot compete for the types of jobs that require the taught computer skills.

### Defining successful technology adoption in small nonprofits

The ability to:

- Use, maintain and upgrade the technology
- Research, identify and implement appropriate technology
- Adapt technology to new needs
- Be receptive to the end users of the technology – staff, clients and communities

### What Factors Determine the Success of a Nonprofit in Using Technology?

The factors that determine successful nonprofit technology use are both internal and external to the nonprofit. Internal factors include mission, organizational resources, vision and understanding of the capacity the technology can yield, and organizational culture. External factors include the needs of the nonprofit's clientele and how well the technology meets those needs, the nonprofit's relationship to the community and other resources, and what resources are available to them.

### Internal factors that contribute to the success of a nonprofit in using technology

The most successful nonprofits were those whose mission specifically included technology — their clientele came to them for the delivery of technological resources. These nonprofits

started with technologically savvy staff, a budget that included the necessary resources to support the technology, and a strong understanding of what would be required as new technology was added to their programs. The mission of these nonprofits might be to provide computer training, to teach computer graphics or to refurbish and distribute computers to school children.

For example, the nonprofit that trained children to do computer assisted graphics, photography and art worked with a large staff of volunteer artists who were already familiar with the technology they taught. Therefore, the executive director could draw on the vast experience of the teachers in making decisions about how to continually upgrade hardware, software and other equipment as the digital art field changed.

One of the most important internal issues affecting the nonprofits' successful use of technology was the provision of adequate resources. Technology adoption requires significant outlays of both time and money. Someone must envision how technology can help the organization accomplish its mission. The technology must then be researched, purchased and installed. Finally, staff must learn how to use it and integrate it into their work. There are financial costs for both the initial implementation and for ongoing maintenance of both hardware and software.

The maintenance of hardware and software also requires significant time by someone who has technical facility. Under-resourced nonprofits already stretched to accomplish basic tasks on constrained budgets often lack the financial resources, staff time, knowledge and willingness to implement a successful technology strategy. As a result, poorly or partially implemented technology tools may create headaches for already busy staff, go unused or create even more work as nonprofit staff struggle to keep even simple operations in place. This is a particular issue for the very small nonprofit. Technology all too often became yet one more drain on already scarce resources of time and money for small nonprofits.

One nonprofit executive director summed up the experience of many small nonprofits when asked how the organization paid for technology:

*By hook or crook. We haven't budgeted for it. Robbing Peter to pay Paul. But it is so important. A lot of people come to our website and it could be so strong.... [Laughs] We will lay someone off.*

In contrast, older nonprofits benefited from having more time to gradually add in the necessary software and hardware. One executive director offered the following advice:

*Start out budgeting a lot of money for it. When we first started our program it was very small ... technology at that time was coming into its own. Don't kid yourself. Budget appropriately and*

*realize that it will be an ongoing cost. Because in the long run it will save you money. But starting out can be very expensive. Plan accordingly and do some research.*

Vision and imagination exert significant influence on successful technology use. The more successful nonprofits thought about what they needed to do to accomplish their mission and searched for ways that technology could help them. The less successful nonprofits had a sense that technology might be useful to them, but did not fully understand the tools available or how they could be employed. One executive director summed up this dilemma:

*It is hard to even let your imagination go. You are so busy doing everything else that is right in front of you. We could use a really good computer with really good graphics. We are working on old computers that are continually crashing. There must be some way to do this where the challenges wouldn't be so great, if I even knew what they were.*

Another important factor in successful technology use is organizational culture. Staff might agree in principal about the importance of technology and feel comfortable with commonly used technology such as cell phones or DVD players, but in at least some of the nonprofits we talked to, they did not trust themselves to figure out how to learn and use more advanced technology. Some have suggested that this is a function of age – that the older generation of nonprofit leadership was not raised in a world where current technology was present. There was some truth

to that, but we talked to a number of younger executive directors who were apprehensive about technology, and older ones who were comfortable with it.

More successful were the organizations with knowledgeable staff, even if they lacked the necessary time to fully implement and use the technology they had acquired. In some cases, staff learned the software on their own time, at home. In other cases, the organization took advantage of recent hires or student interns who were already familiar with the technology. In some instances, this person – an “accidental techie” not hired for their tech experience – trained others. In others, they were the only point of information, leaving the organization bereft when they left.

The most successful nonprofits did their research. Technology was a part of their strategic plan. They knew it was necessary and they budgeted time to discover the best solution. When they needed more information, they knew whom to ask. For example, an after-school tutoring program both consulted with the local school and reviewed information available on the web to find the best computer assisted learning program.

The least successful nonprofits attempted to add technology to their work without planning for sufficient time to train staff. Successful nonprofits recognized that they needed to

budget time to learn the technology and make improvements as necessary. Organizations that failed to plan adequate time for technology felt that they had to “steal” time from staffs’ other tasks:

*We have talked about having online donations (or) an interactive website where people can put in comments directly for others to see. We want to explore further how we can make our website better, but that means taking time out for community activists who are already working on projects. Capacity building is also dependent on funds.*

As a result, nonprofits sometimes used inefficient solutions that did not take full advantage of the technology. For example, one nonprofit used a “sneakernet” – physically carrying their master database on disc from one staff member’s home to another – to ensure that there was a unique copy with all the updated information, and that they were not working on separate updates on different versions of the file. Another divided its e-mail list into several small batches to get past junk mail filters and manually sent out their e-newsletters each time batch by batch, rather than automating the process. In a few cases, especially motivated staff used personal time to learn what was required. Since these nonprofits were small and typically had far more work to be done than staff hours to do it, release time was hard to come by. This was ironic given the ultimate savings in time and

### Factors that Help Foster Successful Technology Use in Small Nonprofits

#### Internal:

- At least one technologically knowledgeable staff person
- Creativity in thinking of ways to use the technology and research the possibilities
- Allocation of sufficient time and money for training, adoption, and maintenance of the technology
- Staff receptivity to technology
- Understanding of and willingness to listen to the communities served

#### External:

- Availability of knowledgeable and affordable support personnel
- Start-up funding
- Reliable technological infrastructure

#### Bridging Networks:

- Consistent access to people who provide technological resources and knowledge
- Ability to use the internet to access others who can provide assistance

increased ability to achieve mission that using the technology would have provided.

Finally, successful nonprofits recognized that staff are not all equally receptive to technology – some might doubt their own ability to learn it or simply not understand how the technology can help them accomplish their work:

*The challenge that we had — that nonprofits have at large — there may be nonprofit people who grasp the potential of technology and computers and the internet and networking and they get why it is important... [but] there are people who are technologically resistant and look at a computer as a more sophisticated typewriter and adding machine and they are resistant and they don't get it at a basic level... It takes time for them to get why we need these things.*

A staff member who is resistant to change cannot be forced to adapt. One solution to resistant staff is to include them in the discussion about how to improve technology and how to make it more accessible to people like themselves. For example, one organization had a technologically savvy staff member make recommendations to the rest of the staff about what changes should be made and asked other staff to voice their needs and concerns. Because all were involved in the decision process, there was a greater understanding of the tradeoffs that were being made.

### External factors that contribute to the success of a nonprofit in using technology

The most successful nonprofits understood the interests and technological capacity of the communities they served. A nonprofit that served farm workers knew that the people it wanted to reach did not have access to high speed connections or up-to-date computers, so they kept the graphic content of their website to a minimum. Another nonprofit understood that most of its clients were not good candidates for software training as a job

development skill because they were uninterested in using computers and English was not their first language. The nonprofit that distributed solar cooking equipment worked with local communities to adapt the technology to local needs and resources.

The best nonprofits worked directly with the communities they served on technology solutions. They hired from the community, placed community members on committees to make decisions about new services, spent time really listening to people's needs, and understood what they could and could not do. The quote below is from an organization that provided computer training to women:

*We can be very intimidating to our students if we put out too much information and we don't take into consideration their background. We could very easily scare them away from what we want them to learn... I see that other schools, people want to get into this field, but they can't because the way these schools present is to give information to the students who then go and study it at home... If I give homework, they are not going to do homework. What they are going to learn, they are going to learn here in class, because when they go home, they have a husband and children to tend to and they aren't going to be able to sit down and do homework as we traditionally think in a regular school.*

Some organizations used data to help plan their technology strategy:

*Basically we sent a survey about access to computers out to each school along with the regular survey we do; we surveyed about 1,500 children. Then we get more information from the*

*school district ... we used their data and our data and put it together. We realized about six or seven percent [of the children] had regular access, regular access meaning that you can go on anytime you want. And other than that the only time they had access was at school.*

Once assured of interest, successful nonprofits taught their communities how to access the technology they had available. They did not assume that everyone had regular access to technology and planned accordingly.

*We are also teaching our members how to use technology and get online. A lot don't have computers, but go to libraries so we provide training in offices, homes, libraries.*

Less successful nonprofits assumed that the community would use their technology once it was available. For example, one organization established an online discussion forum so people could discuss common issues and recruit volunteers online. The discussion forum was largely unused. While the organization's staff recognized that they needed to do greater outreach, they failed to consider whether their constituents wanted this technology.

Technology is only effective if people have the time and interest to become involved in the issue in the first place.

### **How Did Nonprofits Learn About, Acquire, Use and Improve Technology?**

Over and over again, nonprofit leaders told us the issue was money. They might receive an initial grant to purchase hardware, but funding for maintaining and upgrading was more

difficult. Funding for a dedicated technology position was also problematic.

*The biggest barrier is being able to fund sufficiently and upgrade. We have to have a much higher equipment and software budget every single year than it used to be. Not everyone likes to fund that. At some point there is the need for someone's job to be tech related. I don't think we would have trouble funding that position the first year, but it wouldn't necessarily be an easy position to fund year after year. So it is something we would have to absorb into fundraising and that isn't easy.*

In spite of these challenges, the nonprofits we interviewed achieved great things. One critical factor was the extent to which they had access to people who were already technologically sophisticated. Some were lucky enough to have a knowledgeable staff person. One nonprofit, for example, hired a student volunteer as a permanent staff member. Since he had learned web design in college (and even ran a small consulting business) they were able to make use of his expertise and update a very old website. Some of the nonprofits we interviewed would only hire people if they were familiar with the basic hardware and software used by the organization. The digital media training organization called upon the considerable knowledge of its volunteer artists to make recommendations about upgrading and adding new programs.

*We have one of our volunteer artists who is a technological wiz and he came to us with an idea that is an integration of his creativity and technological knowledge. When someone comes to*

*us with something that we feel really pushes the boundaries, we try to be very open to it.*

This quote shows the importance of staff openness to trying new ways of integrating technology into their work.

One organization called upon a technologically knowledgeable member of their board for assistance. Other organizations used family members or friends. Assistance in this case might grow out of a belief in the mission of the organization or simply a desire to help a child or spouse.

In the examples above, small nonprofits relied on social networks to access technological expertise. Of particular importance were “bridging networks” – staff, volunteers, board members, spouses and relatives, etc. who could provide access to other people who could help the organization with technology issues. Thus, a spouse of a staff member might introduce the organization to a technology consultant whom she had used at another company. Consultants reached through these types of referrals sometimes offered discounted rates because they knew the people involved and believed in the mission of the nonprofit. In one case, a volunteer knew of a distant nonprofit with a website that was well designed for his nonprofit’s needs. The volunteer reached out to the web designer and arranged to purchase the website code at a discount because the initial development work had already occurred.

Nonprofits whose staff and board lacked technological expertise themselves were less likely to have technology bridging networks. Furthermore, novice organizations often lacked the ability to judge the credentials of those who offered help. In some instances, this left the organization with enthusiastic but not necessarily competent help. Since the staff was uneasy with technology in the first place, the failed implementation created even greater resistance to technology use.

Particularly problematic was reliance on student help. Students could provide invaluable free assistance, but the students moved on once they finished their coursework. When software or hardware did not perform as desired, the nonprofit was unable to go back to them for continuing help.

The internet proved to be a useful tool for some organizations to gain the knowledge and assistance they lacked. One nonprofit advertised its need for someone with video editing skills on several list-serves and had three offers for help. Other sophisticated nonprofits conducted online searches for software that could be used to convene a virtual community, and identified networking software that could be adapted to map complex connections among slum landlords and the properties they owned. Another nonprofit posted questions about a particular

fundraising software on users' groups and got some of the answers they needed.

### **Does Nonprofit Technology Success Vary by Region?**

We conducted our research in three regions to see if differences in the availability of technological resources and infrastructure affected nonprofits' use of technology. We began with the assumption that nonprofits in the Bay Area would be the most technologically advanced because of the existence of major technical assistance groups and the resources of nearby Silicon Valley. We suspected that Los Angeles would have the next richest environment for technological support and the Central Valley the least, and that the nonprofits in these regions would reflect these differences.

To some extent, our predictions were born out. Bay Area nonprofits could get technology consulting, and never mentioned technical infrastructure problems as being a barrier to the successful integration of technology. Several organizations in the Bay Area took advantage of dot-com lay-offs and hired technologically savvy people, a few of whom decided that serving the mission of the organization was more important than the higher salaries they could make in the tech sector.

In Los Angeles, very few of the nonprofits we talked to even knew about the classes offered

by technical assistance groups in that region, nor were they aware of nationally known organizations. To the extent that they knew about technology assistance organizations, they mentioned TechSoup as a source for discounted software. Furthermore, one Los Angeles nonprofit abandoned its wide area network because the infrastructure in South Central Los Angeles was too unreliable.

While there were no differences between regions in the level of technological sophistication of staff, there were clear differences in the conditions in the larger community. Central Valley nonprofits were most affected by the technological resources available in their region. We have already mentioned how a nonprofit that sends information to farm workers had to keep its graphic content simple so that it would not overwhelm old computers and dial-up connections. An interviewee from a disability organization mentioned that making testimonials in city council chambers was challenging since they were not wired to permit assisted hearing devices. She further added:

*The majority of spaces for trainings or meetings are not set up for assisted hearing devices. That bothers me. I ask for accommodations. People call me and say "where do I get this stuff?" They call me 24 hours before the event which makes it almost impossible.*

When asked if they used technological consultants to help with their work, many in

the Central Valley mentioned for-profit vendors, but none knew of any local nonprofit organizations or individuals who specialized in assisting nonprofits.

However, we should not exaggerate the relative differences by region in technical assistance. Very few of the organizations we surveyed used the services of a technology assistance group, or a freestanding nonprofit technical assistance provider (N-TAP) to help them. The majority, even those in the Bay Area, did not know about the services of CompuMentor, a major player in the technical assistance field.

A few of the organizations we interviewed sent individuals to classes to learn particular software, but only one of the 28 organizations surveyed for this study found the classes to be helpful. This organization sent someone who was already proficient to learn addition skills. She had the exact dimensions of the project she needed to accomplish in mind (upgrading the functionality of an Access database) so could ask targeted questions. In contrast, some nonprofits sent staff to classes not because they had a specific project in mind, but because the executive director felt that a particular staff should have the competency being taught. These classes were not considered helpful because the staff did not have an immediate application to apply what they had learned. Others felt that they did not get much out of

the trainings because the classes were too general, or pitched at too high or low a level.

More often, people came to work already familiar with the software or hardware in use, or were trained by others in the organization. Those who felt comfortable with technology often taught themselves or upgraded their skills through their own initiative. Those who were uncomfortable with technology learned the bare minimum necessary to do their work, and relied on others to troubleshoot when there was a problem. When no one in the organization could serve as an accidental techie, then paid assistance and reliance on contacts among volunteers or friends and family became necessary. For small, struggling nonprofits, the costs of assistance might be more than they could afford, and technology would fall out of use altogether.

### CONCLUSION

Technology is an integral part of work today; a nonprofit cannot hope to achieve its mission if it does not have access to and the ability to use technological tools. The creative use of technology can lead to greater efficiencies in managing the organization, new ways of involving disparate communities, and greater visibility and presence with funders, potential clients and partners. The nonprofits we talked to understood the need to use technology effectively, whether they were successful in their technology use or not.

That said, unlike the field of dreams, if you build it they won't necessarily come. To be effective, technology must meet the needs of those who use it. Internally, it should meet the needs of and be embraced by staff. Staff of small nonprofits must see that technology permits them to do something they already want to do in more productive ways. They must not feel intimidated by the technology, and technology use must be adaptive to the realities of their work, the routines they have established, and the time they have available. Otherwise, technology will go unused.

The most successful nonprofits we interviewed involved the ultimate users of the technology in their decision-making process. Staff might rely on a particular person within the organization to suggest technological changes, but users were consulted and became part of the ultimate decision process. Organizations seeking to introduce new technology to communities involved the community and modified or even abandoned plans based on community input.

The best nonprofits similarly recognized that technology is a tool – not an end in itself. If people have no time or interest in sharing experiences or reading others' blogs, then the most sophisticated and well-designed website will not draw them in. Similarly, mapping can be an effective means to show the location of community assets and problems and can

empower local communities in making presentations to public bodies or others, since it allows them to effectively present their story. But if there are not already at least some community members who want to do this work, the tool will accomplish little.

The second lesson for nonprofits is that technology use must be carefully budgeted. Beyond the initial cost of hardware and software, human resource development and ongoing maintenance costs must be accounted for. While the typical small nonprofit may have no slack capacity to absorb the financial and staffing resources needed, failure to do so has major costs in lost efficiency.

The most successful nonprofits did their research and then budgeted sufficient staff time and other resources. They also recognized that they might not be able to afford to do everything with internal staff resources and would have to look outside for funding and expertise. These nonprofits did not rely on volunteers' free assistance if they could not be assured that the volunteer would be available in the future. Additionally, they knew enough to not immediately assume old technology was bad – the use of the technology determined whether the latest computers and software were necessary. Finally, they understood that technology changes rapidly and wasn't always worth the cost of repair.

This leads to the third lesson. As with everything else, whom you know matters. Successful nonprofits parlayed their social networks into valuable resources. They relied on friends, relatives and acquaintances for technical knowledge, for connections to vendors, and for actual help in building websites, networking offices and developing specialized applications. Nonprofits whose staff themselves did not have the knowledge and did not possess links to people with technical expertise suffered.

The nonprofits that did best were those that possessed “bridging networks,” connections to other organizations or individuals outside their immediate circles from whom they were able to garner valuable information about software, hardware and implementation. Some nonprofits took advantage of the internet to develop such connections – searching for online groups or individuals developing interesting applications that could be adapted to the needs of the nonprofit.

The most creative nonprofits kept their eyes open, looking for inspiration in how to apply technology. They typically didn’t start from scratch, but adapted technologies developed for other applications, for example, seeing a solar powered bus offering financial services and translating that into an idea for a solar powered computer bus. The ability to discover new technologies and the creative uses to

which they could be put required that nonprofit staff and boards have access to diverse users and developers of technology, so as to get ideas. This is one area where the internet can be invaluable, since it easily permits people to learn from others despite geographical distance.

Another lesson emerges in these results. There is an entire network of technical assistance providers – circuit riders, management service organizations, and simply individuals who specialize in helping nonprofits. Surprisingly, very few of the organizations we interviewed utilized them. And of those who did, most did not find them very helpful. The reasons are perplexing. Many simply did not know of the existence of this form of assistance, which suggests a need for better marketing of services. But many of those who did use services were not overly enthusiastic about them. Our research only permits us to speculate why this is the case. No one complained about technical competency. Instead, those who got the most out of the technical assistance were people who already knew something about technology, had a specific need, and were able to get sufficient training to take over the project on their own. Those who lacked technological competency did not gain much from trainings, since the application was less immediately clear to them. Additionally, for those nonprofits that lacked internal technological competency, what

mattered was ongoing technical assistance.

This kind of support was more easily obtained from a paid provider or a long-time volunteer.

There is a lesson for the philanthropic and the public sectors as well. Support for technology is crucial to nonprofits. It is an essential cost of general operations. Furthermore, this support must go beyond simple hardware and software to cover the costs of learning about new software and hardware, staff training, maintenance and upgrading.

The simple lesson of this research is that nonprofits can no longer survive using staff members' personal email and internet connections, old computers that are not networked, and rudimentary phone systems. Technology requires continual investment if nonprofits are to be most effective in accomplishing their missions. All the nonprofits we surveyed, including those who struggled with technology, were doing interesting and important work. None of them could do it without the assistance of technology.

### Recommendations for Small Nonprofits

- Budget time and money for technology
- When possible and appropriate, involve end-users (clients and staff) in technology planning and decision making
- Recruit technological expertise to staff or board
- Build networks using board, staff and other friends
- Better utilize online resources for technology expertise

### Recommendations for Foundations

- Push grantees to budget time and money for technology
- Provide technology funding in project overhead or in separate grants

### Recommendations for Technical Assistance Providers

- Increase marketing to small nonprofits
- Develop ongoing technical assistance relationships with nonprofits

## APPENDIX

### Types of Organizations Interviewed for This Report

The categories below are based on the National Taxonomy of Exempt Entities (NTEE) classification system. We grouped interviewees based on their primary activity, the work which consumed 50% or more of the organization's time and resources. These are not exclusive categories.

Social Action and Advocacy	9
Arts, Education and Youth Development	7
Community Development	7
Human Services	5

### Nonprofits and Technology Resources

#### **TechSoup**

[www.techsoup.org](http://www.techsoup.org)

TechSoup provides free information, resources, and support for nonprofits' technology needs.

#### **TechSoup Stock**

<http://www.techsoup.org/stock/>

TechSoup Stock provides donated and discounted technology products, generously provided by corporate and nonprofit technology partners.

#### **CompuMentor**

[www.compumentor.org](http://www.compumentor.org)

CompuMentor provides person-to-person services, low-cost software, and online resources to nonprofits and schools serving low-income communities. Home of TechSoup and TechSoup Stock.

#### **Aspiration**

[www.aspirationtech.org](http://www.aspirationtech.org)

Aspiration connects nonprofits to software solutions that help them more effectively meet their missions of positive global change.

#### **N-TEN**

[www.nten.org](http://www.nten.org)

NTEN is the membership organization of nonprofit professionals who put technology to use for their causes. It enables members to strategically use technology so that they, in turn, make the world a better, just and equitable place.

#### **NPower**

[www.npower.org](http://www.npower.org)

NPower is a national network that helps thousands of organizations each year to expand their impact through the strategic use of technology. Local NPower services include technology planning, consulting, education and support.

#### **Verizon Foundation Resource Center**

[foundation.verizon.com/resourcecenter](http://foundation.verizon.com/resourcecenter)

Verizon Foundation Resource Center is a suite of online tools that give nonprofit managers access to national training partners and business resources.

#### **Idealware**

[www.idealware.org](http://www.idealware.org)

Idealware intends to provide rigorous reviews of many different kinds of nonprofit software.

#### **Community Technology Foundation of California**

[www.zerodivide.org](http://www.zerodivide.org)

Through engaged grantmaking, the Community Technology Foundation of California invests in community enterprises that accelerate civic engagement and economic empowerment.

#### **California Emerging Technology Fund**

[www.cetfund.org](http://www.cetfund.org)

This fund will focus on achieving ubiquitous access to broadband and advanced services in California, particularly in underserved communities through the use of existing and emerging technologies. The board anticipates making decisions about first investments in mid-2007 and early 2008.

#### **AT&T Exceleator Grant Program**

[www.att.com/gen/corporate-citizenship?pid=7745](http://www.att.com/gen/corporate-citizenship?pid=7745)

The 2007 AT&T Exceleator grant program will provide \$9 million in competitive technology grants to help local nonprofit organizations integrate technology into their operations and community outreach.

## SUCCESSFUL TECHNOLOGY USE IN SMALL GRASSROOTS NONPROFITS

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The USF Institute for Nonprofit Organization Management is a multidisciplinary center for research and curriculum development in nonprofit and philanthropic studies. It serves the mission and core values of the University of San Francisco by creating and sharing knowledge to strengthen the nonprofit sector and is a resource for organizations working toward a more humane and just world.

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