Chapter 11: Best Practices in Community Networking

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Executive Summary

This chapter is structured as a series of sequential steps to guide a project team through the process of dreaming, inviting, planning, implementing, and evaluating an online community information project. By online community information I mean to imply a rather narrow subset of the palette of activities undertaken in the name of community networking. This Toolkit s working definition of a community information project is the use of the World Wide Web to provide ready access to local information. It does not address the use of Internet communication tools such as email, Usenet, and various kinds of two-way conferencing. It also does not treat the issues of bringing local dial-up access to a community; nor does it discuss general policy issues regarding Internet use.

Step One: What Are Your Ideas?

It starts with an idea or a dream. This first section presents examples of different types of community information projects. It is essentially a gallery of ideas with links to real projects. The types of projects include

- Organize electronic information relevant to the local community
- Create web sites for/with/about local organizations or the community as a whole
- Digitize a static collection of documents or artifacts
- Digitize a collection of documents or artifacts which grows or changes
- Create electronic directories of dynamic information
- Create e-commerce and online transaction applications
- Create webcasts of local events

Step Two: Do you need partners or participants?

It is helpful to be clear and deliberate about the relationships you form as part of a community information project. There are a variety of ways that those involved in your project can interact. Relationship problems usually arise because of misunderstandings or dissatisfaction with these interactions. There is a difference between having partners and having participants. Partnership means involving others in the decision making and implementation of the project. Participation means involving others but maintaining control and responsibility for yourself. This is a broad generalization, of course, which in real situations takes on many variations, but the framework is useful for thinking about and managing the relationships which form around a community information project. Partnership means involving others in the decision making and implementation of the project. You gain a wider base of support and creativity, the potential to attract more resources, and the opportunity to create widespread cooperation instead of competition. You also add complexity which increases the risk of failure and slows down the process. Defining and building a partnership becomes a process in itself which needs

attention separate from the processes which the partnership seeks to implement.

Participation means involving others in a well defined give and take exchange while you, the organizer and facilitator, maintain control and responsibility. Others may provide input into decision making, but final authority lies with the individual or group that called the meeting . The primary advantage is the ability to take action quickly and maintain control. Potential disadvantages include

- The challenge of maintaining committed and motivated participants when they may not feel ownership of the outcome.
- Difficulty in effectively incorporating the talents or resources of those not in the controlling organization.
- The possibility of finding yourself in competition (or being perceived as being in competition) with other initiatives for participants and resources.
- Difficulty in sustaining the project over the long term.

Step Three: What is your plan?

Regardless of who is participating and how, a planning process which yields a clearly defined mission and plan of action with measurable outcomes is essential. You may find yourself fleshing out your ideas and dreams from step one, especially if you don t build partnerships, but don t be surprised if the planning process takes you in unanticipated directions.

Decisions regarding staffing, financing, training, marketing, technology and design will all come into play throughout the planning process. Each of these topics is addressed in relation to community information projects.

Step Four: How will you manage the work?

Once your project moves from the planning stage into the implementation stage, the importance of the facilitator or coordinator comes into play. Make sure everyone understands his or her role, responsibilities, and deadlines. Identify where accountability is coming from. Develop a picture of the work relationships, procedures and communication channels in your project. Decide how the group will sense their own progress. Decide how progress will be reported outside the group. Come up with strategies for addressing problems.

Step Five: What are the implications for future projects?

Create some opportunities for reflection on the project and record lessons learned or stories to share. You may make these available to others through publication, conference presentations, or simply refer to them in the planning stages of your next project.

Step One: What are your ideas?

Organize electronic information relevant to the local community

Organized by Subject

- MAIN Metropolitan Austin Interactive Network http://www.main.org/

Audience Specific

- The Senior Alliance (Southern and Western Wayne County, Michigan) http://www.aaa1c.org/

Issue Specific

- Childhood Asthma Task Force in Flint, Michigan http://www.flint.lib.mi.us/catf/catf.html

Create web sites for/with/about local organizations and the community as a whole

Youth as Publishers

- WebLinks http://www.flint.lib.mi.us/weblinks/
- Plugged In http://www.pluggedin.org/

Neighborhoods

- Seattle Public Access Network Neighborhoods http://www.pan.ci.seattle.wa.us/html/citizen/#neighbor
- Austin Free-Net Neighborhood Network: East Austin http://afn-neighbor.net/eacn/index.htm

Comprehensive Local News and Information

- WinonaNet from Winona, Minnesota http://www.winonanet.com/

Support for Collaboration

- The Grand Community http://www.grandnet.org/
- Foleshill Area Coordination Team http://www.foleshill.org.uk/

Tourist information, local attractions and festivals

- The Texas Rural Recreation Association s Interactive Vacation http://texasrural.org/iVacation/index.html
- Cadillac, Michigan http://www.cadillacmichigan.com/

Economic and cultural profile to attract business and investment

- Gogebic County Economic Development Commission http://www.gogebic-edc.org/
- Traverse City, Michigan http://www.tcchamber.org/

Statistical Maps

- Environmental Systems Research Institute s Internet Mapping Sites http://www.esri.com/software/internetmaps/visit_sites.html

Digitize a static collection of documents or artifacts

Digitized Special Collections and Archives

- Making of America http://www.umdl.umich.edu/moa/
- American Memory Project http://memory.loc.gov/ammem/

Virtual Tour

- Sault Ste. Marie [Canada] - A Community History Through it's Historical Sites http://www.schoolnet.ca/collections/ssm/
- Historic Hancock http://www.cityofhancock.com/tourstart.html

Oral History Transcripts and Audio Files

- Conversations with World War I Veterans in Southwest Virginia http://www.roanoke.com/roatimes/ww1/vets.html

Culturally Significant Multimedia Learning Resources

- CHICO Music Heritage Network http://www.si.umich.edu/CHICO/MHN/index.html

Student Research Projects

- Virtual Museums: Constructing Meaning on the World Wide Web http://www.learningspace.org/global_conn/about/vmuseum/vmone.htm

Yearbook

- Benson Polytechnic High School s 1997 Benson Blueprint http://www.tpn.ml.org/yearbook/

Digitize a collection of documents or artifacts which grows or changes

History or Timeline Database

Blacksburg Electronic Village HistoryBase http://history.bev.net/bevhist/

Municipal Code

- Book Publishing Company s Online Municipal Codes http://www.bpcnet.com/codes.htm

Voter Guides

- California Voter Foundation http://www.calvoter.org/home.html

Court Records

- Washtenaw County Trial Court opinions, dockets, and signed orders http://www.co.washtenaw.mi.us/DEPTS/COURTS/index.htm

Newspapers or Newsletters

- School Newspapers from Highwired http://www.highwired.net/members/bystate/
- Hancock, Michigan Community News and Events http://www.cityofhancock.com/frameindex.html

Crime Reports

- Washington DC PSA 108 Crime Prevention http://crime.washingtondc-online.com/default.shtml

Agendas and Minutes

- St. Paul Minnesota City Council http://www1.stpaul.gov/council/

Create electronic directories of dynamic information

Local Job Listings and Resumes

- Three Rivers Free-Net Employment Resources http://trfn.pgh.pa.us/Employment/
- Boulder, Colorado s One Stop Career Network http://bcn.boulder.co.us/oscn/oscn.html

Community Events Calendar

- Davis, California community calendar http://www.dcn.davis.ca.us/events/
- ShiaNet (Shiawassee County, Michigan) community calendar http://www.shianet.org/community/
- Traverse Area Arts (Traverse City, Michigan) Events http://www.traverse.com/events/

Course Catalog

- Cambridge Center for Adult Education http://www.ccae.org/index.html

Property and Tax Records

- Potter/Randall (Texas) Appraisal District http://www.prad.org/

Contract/Bid Opportunities

- Association of Bay Area Governments Contract Exchange http://www.abag.ca.gov/bayarea/commerce/ace/ace.html

Government Directory

- GovGuide for Silicon Valley http://www.svi.org/govguide/
- Lapeer County Government Directory http://www.county.lapeer.org/dir.html

Business Directory

- Leelanau Online http://www.leelanau.com/online/

Information and Referral Database

- Detroit Public Library s TIP database online http://comnet.org/local/tip/
- Arkansas Resource Information CyberCenter http://www.state.ar.us/aric/

Career Exploration Opportunities

- Grand Rapids Public Education Fund s PathFinder http://www.grpef.org/posting_area/PathFinder.htm

Guide to Local Health Services

- Blacksburg Electronic Village Health Information http://www.bev.net/health/

Sports Schedules and Stats for Local Amateur Leagues

- Amateur Sports Net http://www.asnsports.com/

Homework Assignments

- West Bloomfield Township Public Library Local School Assignments http://metronet.lib.mi.us/WEST/assign.html

Transportation Schedules and Routes

- Ann Arbor Transit Authority http://www.theride.org/home.html
- Grand Rapids Transit Authority (text-friendly) http://www.iserv.net/~grata/

Geographical Guide to Parks

- San Francisco Recreation and Parks Interactive Maps (requires Java-enable browser) http://civic-center.ci.sf.ca.us/recpark/location.nsf/Destinations+by+Map?OpenView

Create e-commerce and online transaction applications

Government forms and permits

- Santa Monica, California http://pen.ci.santa-monica.ca.us/city/cityforms/

Local hotel and restaurant and theatre reservations

- Telluride, Colorado Visitor s Guide http://telluridemm.com/

Online commerce incubator

- Public WebMarket http://www.civicnet.org/webmarket/

Charitable online fundraising

- Examples of Online Fundraising from UK Fundraising http://www.fundraising.co.uk/examples.html

Volunteer recruitment

- ImpactOnline s VolunteerMatch http://www.volunteermatch.org/

Class registration

- Farmington Public Schools Adult and Community Education http://www.farmington.k12.mi.us/FPS/ace/index.html

School tracking and reporting

- Internet Student Information System http://www.edulinksys.com/

Create webcasts of local events

Local sporting events

- Crim Festival of Races http://www.gfn.org/crim/
- University of Michigan Basketball Games http://www.michiganradio.umich.edu/basketball.html

Election night coverage

- Washtenaw County http://www.co.washtenaw.mi.us/depts/clerk/elect/repfrm.html

Disaster coverage and instructions

- Volusia County, Florida Wildfire Information http://volusia.org/firenews.htm

Traffic

- Michigan Intelligent Transportation List of Real Time Traffic Sites http://campus.merit.net/mdot/us.html

Day care center cameras

- KinderCam http://www.kindercam.com/

Step Two: Do you need partners or participants?

It is helpful to be clear and deliberate about the relationships you form as part of a community information project. There are a variety of ways that those involved in your project can interact. Relationship problems usually arise because of misunderstandings or dissatisfaction with these interactions. David Wilcox, a consultant, trainer and writer in the United Kingdom specializing in community participation and partnership building both in flesh and blood and online communities, has written a wonderful book blending theory and practical advice called The Guide to Effective Participation[1] In it, he discusses the key factors at work when we try to engage others in a project or a process, suggests a framework for understanding these factors, and offers practical methods for successfully managing them.

Wilcox puts forward a five level continuum to describe the possible stances that can be adopted when seeking community engagement. The five types of participation outlined by Wilcox are:

- Information, which is simply telling others what is already planned;
- Consultation, which involves presenting predetermined options, listening to feedback, then choosing an option;
- Deciding together, which involves soliciting ideas from the participants, allowing them a say in the decisions, but keeping control of implementation;
- Acting together, which shares both decision making and implementation; and
- Supporting independent community interests, in which others are offered funds, advice or other support to develop their own agendas within guidelines.

A hypothetical example of how these stances may translate practically into a community information project to create web sites representing local organizations:

- Information: gather public sources of information about each organization, create sites about them, post the sites, inform the organizations, ask them for corrections.
- Consultation: identify willing organizations, solicit specific information from them, design a few prototypes, seek their feedback, incorporate changes you think are appropriate, post the sites.
- Deciding together: identify qualified organizations, explore with them good web sites of organizations with missions similar to theirs, brainstorm with them what their site should be and do, decide together on a site plan, solicit content from them, create the sites for them, post the sites.
- Acting together: identify qualified organizations, help them design their site, train and assist them to create and maintain it themselves, post the sites.
- Supporting independent community interests: design a grant program whereby interested organizations receive basic web site planning training, then apply for a mix of funding and in-kind support to plan and develop their own web site in whatever way they see fit.

The last two models require the more complex management of what this paper calls partnerships, while the first three require good planning and some skill in presentation and persuasion. I will call those engaged at these three stages participants. No one approach is better than another. Different approaches are suited for different situations. To be effective, those engaged must be satisfied with

their level of involvement. That means consciously deciding beforehand what approach to use and not misrepresenting it. If you design an information or consultative program, but sell it as an opportunity for active participation, you will likely create disillusioned participants, whereas if you clearly explain the rules of the game and the reasoning behind them, your chances of having happy participants increases. On the flip side, you need to choose the approach which will yield the outcome you desire. If you want passionately devoted participants, you had better design a program which involves them in decisions and possibly implementation, because commitment comes from feeling ownership and ownership comes from feeling like you invented it yourself. In a real world project, you will find yourself working on different engagement levels with different stakeholders, changing the approaches over time. How much variety in engagement you allow depends on your tolerance for managing a complex process and hard restraints like time and money.

Partnerships

Why is partnering so hard?

Partnership relationships are tricky. Many community networking projects have faced grave challenges in this regard[2]. Why are they so hard?

Partnerships are demanding and require trust. Community information projects may bring you into contact with groups you haven t worked with before in an intense, interdependent relationship.

Although libraries for many years have joined with other libraries to increase the efficiency and decrease the cost of information delivery, public libraries have turned to new types of partnerships to help broaden their resource base and reach more deeply into the community. What is changing is that these libraries are forging alliances and partnerships with organizations many of which have not, until now, been central to the workings of public libraries. Further, these partnerships involve organizations on an operational level in relationships that are more complex and often more mutually beneficial than that of funder and grantee. [3]

By definition, partnership means sharing control and responsibility. Partners have to trust each other enough to be able to be honest about their strengths and weaknesses, to be able to express doubt, reluctance or frustration without fear that it will end the relationship, and to feel secure that others will do what they say they will do. The need for this kind of trust undergird the partnership only increases when the joint work involves cutting edge technology that virtually guarantees glitches and mistakes. The hype and hysteria surrounding the Internet can also cast a spotlight on the activities of a community information partnership, causing stress.

The endeavor of creating electronic community information is new and changes at a rapid pace. Even if partnering relationships are old hat and trouble free, the task of webbing without a net can test the strongest of relationships. Each partnering group is trying to figure out its own philosophy and use of the Internet while simultaneously negotiating its contribution to the community networking environment. Part of the learning process for anything

new sometimes includes failing, changing direction, even dropping out. How many times have you changed your major or your career? It is not unusual for partners to begin enthusiastically, hit a snag, drop out for a while, then re-join. If the climate doesn t allow for this flexibility, partnering can be miserable.

Cultures clash, especially between non-profit and for-profit entities. Consider the variety of philosophies and working habits among K-12 schools, small business owners, colleges, service clubs, libraries, local government, chambers of commerce, churches, hospitals, and grass roots non-profits, to name a few. Differences in philosophy quickly come to light in policy discussions. Misunderstandings about communication needs and styles also lead to resentment and frustration if not recognized and addressed.

I was involved as a representative of the library in the early stages of a Free-Net project and there were some rough times. I don t think you can over emphasize the fact that you need to make certain other people understand you when you talk and likewise that you understand them when they talk. Libraries have a unique perspective. As librarians, we were interested more in the information and access to it by all at public places like the library, while others were interested in the project for communication functions and individual access from home. And I don t think we understood that in the midst of it; only now looking back is it clear that that was what was going on. Charles Hansen

Why Do It?

If partnering is so hard, then why is everyone doing it (or killing themselves trying?)

Because funders like it. Perhaps that is a flip response, but it is increasingly true and is a significant incentive for bringing people to the table. Grant makers like to see collaboration because it reduces redundancy, improves chances of sustainability, and increases the potential impact of programs. But forming partnerships solely to get grant money won t cut it in the long term.

To pool resources and accomplish something no one group could do alone. In an age of do more with less, partnerships are the only way to innovate and deliver new services. As libraries realize that they can t afford not to embrace new technologies and the new roles they imply, they search valiantly for ways to absorb the costs into their service models and tight budgets. Partnerships are an important tool in facing the challenge.

More and more, public libraries must make difficult choices or seek external funds to pay for new programs. And the financial requirements for connecting community members to the Information Superhighway are immense. As they seek resources, library leaders are finding themselves in new and unprecedented relationships with public and private funding agencies of all kinds. [4]

To solve complex problems. Problems in economic development, improving education and public health involve hundreds of factors from various community sectors, and unless those sectors work in concert to solve the problems, solutions are elusive. Many

community information projects are founded in the service of these larger community goals.

For example, the common perception of Silicon Valley is as the home of technological innovation and a model of the information age. But the outlook in the Valley was not always so bright. In the early 1990s, after decades of expansion, job growth slowed dramatically. Key jobs moved outside the area. Regulatory delays, transportation congestion, high housing costs and unpredictable taxation contributed to a high and often prohibitive cost of doing business in the Valley. In early 1992, hundreds of business, government, education, and community leaders assembled in a series of town meetings. Out of that, various initiatives to rejuvenate the region were launched, one of which was SmartValley. Through private and public sector collaboration, Smart Valley has created projects in the last four years that have focused on accelerating the community's adoption of technology, initially in business, now especially in education and local government. The projects demonstrate the value of technology as a means of addressing regional problems such as improving the quality of public schools, streamlining local government, and creating alternatives to transportation gridlock. Two examples are SmartVoter and GovGuide, both sites dedicated to helping the citizen connect with and participate in local government.[5]

To negotiate conflict. *In a time of widespread frustration with politics-as-usual, in which confrontation, hierarchy, and exclusion characterize our primary means of problem-solving, the principles of collaboration are seen by many organizations, communities, and civic leaders as a more effective means of working for change* [6] That is, well planned partnerships allow people to envision and work together toward a positive goal, rather than complain about or work destructively against some perceived evil.

Tips for Building Effective Partnerships

So what can you do to maximize your chances of building effective partnerships?

Start Small. Find a Niche. Be successful. Build from there. In the first wave of community networking and information projects, many of the partnerships tried to do everything all at once create Internet infrastructure in the community, provide dial-up Internet service, install public access facilities, build training centers and offer classes, foster distance learning, and publish community information. They were so busy doing all these things, they often didn t have time to carefully build their working relationships. Over time, many efforts burned out or reinvented themselves midstream.

The technology picture for most communities is drastically different today than it was even three years ago. With more and more commercial options available for Internet access, training, and web hosting, the locus of Internet based activity in a community is becoming more and more dispersed. Whereas three years ago a community network may have been the only game in town for access, training, and information hosting, today there may be a variety of options for obtaining those services. This is sometimes due in large part to the pioneering work of community networkers

themselves. As the number and diversity of skilled, technologically savvy stakeholders in a community grows, smaller coalitions can concentrate on niches.

For example, in Austin, Texas, the Austin Free-Net <http://www.austinfree.net/> concentrates on creating public access stations and training for those who would not otherwise have access; the Metropolitan Austin Interactive Network (MAIN) <http://www.main.org/> provides free web hosting and publishing training for non-profits, as well as a well organized gateway to Austin information wherever it is hosted; the city of Austin <http://www.ci.austin.tx.us/> undertakes many sophisticated online publishing projects concerning their unique data collections; Austin360 <http://austin360.com/> is a large site created by the parent conglomerate of local media outlets that publishes local news and entertainment, as well as offers free sites for non-commercial groups; and the AFN Neighborhood Network <http://www.afn-neighbor.net/> is a project focussed on putting the Internet to practical use in low income neighborhoods. These efforts overlap or compete in some respects and specialize in others. What are your unique specialties and what potential partners share your goals?

Choose your partners carefully. Partnerships require trust. Who have you worked with successfully in the past? What potential new partners have a good reputation for cooperation? What personal contacts do you or your staff have which can be leveraged into more formal relationships? *In Rochester Hills, partners were identified by brainstorming logical choices then approaching those with whom the library already had a collegial relationship.*

Keep the number of acting together partners at a level appropriate to the task. Partnership means involving others in the decision making and governance of the project. In general, the more inclusive a collaborative project is, the greater the likelihood that it will survive over the long term[7]. On the other hand, the more partners you add to the mix, the longer, slower and riskier the process becomes. The trick is to find the right balance. The good news is not everyone needs or wants to partner with you at the acting together level. You can get partners to support you at the highest level of engagement on the scale. The supporting independent community interests level is less entangling because that partner supports you within guidelines you define together without interfering. On the other hand, you can also involve people as participants. A couple of cautions:

- Some groups may wish to be partners in name only because they do not have the time or resources to partner fully. Their participation may be advantageous to the project because their name lends clout or they can offer money. However there is a danger that such a partner may try to manipulate the relationship down the line. However, if the expectations and responsibilities of each party are

clear up front and the in name only partners agree not to exert pressure beyond their scope of involvement or subvert the project by acting independently in opposition to it, it can work. *In our first year, our funder micro-managed us to some extent, but in the second year, they trusted us and got out of the way. Allyson Knox*

- While you want to keep the number of partners down at a workable number, failing to include a key stakeholder, even if you can t imagine working with them, may predestine failure. For example, a partnership to create an online calendar of events which does not involve whatever local media sources currently fulfill that need in a community may well find itself at odds in the future with a higher profile site drawing on long established sources of information run by that local media interest you failed to approach. If you can t convince all the key stakeholders to partner, proceed only with your eyes open to the added challenges. *At the Traverse Community Network (TCN), their interest in posting local community events led them to approach the small weekly community paper, the Grand Traverse Herald. Mike McGuire presented them with a mocked up prototype and they agreed to supply the weekly information. The Traverse Community Network became their first home on the web <http://tcnet.org/gtherald/index.html>. When the Herald s sister publication, the larger Traverse City Record Eagle, later went online <http://www.record-eagle.com/>, the Herald was represented there, too, but rather than pull out of their relationship with TCN, the Herald continues to publish its calendar there. The design of their new site <http://www.record-eagle.com/herald.htm> even echoes the graphics from that first prototype.*

Don t underestimate the importance of good facilitation. Partnerships need a person or team whose task is to keep the partnership on track. The facilitator leads the planning process, keeps meetings on track, tracks implementation, nurtures communication, and mediates conflict. This takes a lot of skill, effort and commitment. If at all possible, try to design it into someone s paid job description. If no one on your team has these skills, invest in training. See the bibliography for some good resources.

Good facilitation will avoid the common problems of feeling like meetings don t accomplish anything, that a project is all talk and no action, that a small subset of the group is doing all the work, that input is ignored, that the project is too vague, that people are fighting turf wars, that one group is calling all the shots, or that sexism/racism/classism or some other bias is infecting the partnership. A good facilitator can help a group be deliberate in the way they communicate and work together. *So often in partnerships, the theory is so inspiring, but people forget about the tangibles. Without someone looking after the details, the work/results process isn t as effective, efficient or thorough. Allyson Knox*

Gauge and account for skill and confidence levels. *Ideas and wish lists are little use if they cannot be put into practice. The ability to do that depends as much on people's confidence and skills as it does on money. Many participation*

processes involve breaking new ground - tackling difficult projects and setting up new forms of organisations. It is unrealistic to expect individuals or small groups suddenly to develop the capability to make complex decisions and become involved in major projects. They need training - or better still the opportunity to learn formally and informally, to develop confidence, and trust in each other. [8] Because publishing information electronically is so new to most people, their initial confidence and skill levels are quite low. Witness the popularity of books for Dummies and Idiots. In this situation, it is perhaps unrealistic to expect success with a partnering approach unless significant training and support resources are available. Starting with a less demanding participation level can build success, trust, and confidence which can be tapped later in a more ambitious project.

The WebLinks project started with 10 at-risk kids who had very limited experience with using computers. The goal was to train the students as web developers, then pair them with non-profit agencies to create web sites. We designed the program with several repetitions of the process, each round working with a new set of agencies. Each round concluded with a public, show-and-tell unveiling of the sites, in which the students got to say I did this. In the first round, it was an accomplishment just to get the sites done based on filling information into templates. By the third round, the kids were branching out beyond the template, creating their own designs, manipulating information, and getting much more adventurous and skilled at graphics. It was an incremental process. If we had stopped after the first round, I m not sure anyone would have felt as successful. Cynthia Stilley

Deal with conflict. When conflict arises, and it will, deal with it in constructive ways. Reframe it in terms of understanding the underlying needs and strengths of each point of view and work together to come up with creative ways to meet as many of those needs as possible.

Conflicts are inevitable and necessary in order to air differences. Nevertheless, they can present a barrier to the partnership achieving its goals. Conflicts come up because people feel that their needs, perceptions, rights, power, values, and/or feelings are being attacked or overlooked. When the partnership addresses these concerns as a group, however, new, often innovative, perceptions and options frequently emerge. Conflict can be beneficial in that it allows dissatisfaction and dissention to surface and be dealt with, provides an opportunity to reassess norms for appropriate behavior, tests the strength of current power structures, and breaks the group out of stagnation by stimulating a search for new solutions. Conflict periods may be a partnership's times of greatest growth. [9]

Acknowledge and understand the cultures of each partner s organization. Each partner comes from a different organizational culture with various constraints. Variations in business cycles, fiscal years, reporting structures or computing platforms, staff turnover, or less tangible (but just as real) strictures such as inflexible policies, resistance to change, or a we know best patronizing attitude can all limit the effectiveness of a partner s contribution. Each partner should identify and share their limitations with the group in an honest way so that they can be factored into plans. Stereotypical

assumptions about other partners should also be aired and addressed in a non-confrontational way.

Businesses tend to be impatient with long processes because time is money for them. Universities, governments, and large corporations tend to be concerned about their reputations. Non-profits worry about their financial survival and are loyal advocates for their constituencies. Academics are interested in theories, vision, and process. Schools and governments are often overwhelmed by their bureaucracies and rules. Governments also tend to be fearful because of public scrutiny. Allyson Knox

Keep a local focus. Especially when a community lacks money or people with specific skills, it is tempting to court big players from outside the community to help. This is not a bad thing in and of itself. However, make sure that such non-local entities are sensitive to local control and behave as equal partners. Also be on guard that local partners do not succumb to the ease of being led in unfamiliar territory and subsequently abdicate responsibility. Non-local partners eventually go away. After they leave, will the local stakeholders feel committed and empowered to continue?

Guard against fatigue. Remind yourselves often of the benefits each partner derives from the relationship. Explain these benefits in terms that each partner understands. A business owner may respond to the bottom line, while a social worker may value improved networking relationships. Celebrate success. Acknowledge and reward individual contributions. Pay attention to little things like refreshments at meetings and the need to socialize. Make sure that the benefits continue to be worth the considerable time and effort invested. If not, fix the problems or get out.

We found it not only helpful, but necessary to set aside time to go on a day-long retreat away from the daily demands and familiar situation. It both rejuvenated the relationships among the group members and brought back into focus what the near term goals were. Charles Hansen

Make sure your own house is in order and proceed with integrity. Before you enter into partnerships, examine your own motivations for doing so. Make sure there is support in your own organization for the partnering activity. Be clear about the impact this activity will have on the organization in terms of staffing, time, and money. Be prepared to express intentions and agendas honestly and openly, be specific from the start about your objectives so as not to create false expectations, and do what you say you will do.

Participation

As opposed to partnership, in which groups share decision making and responsibility for implementing decisions, participation means engaging in a well defined exchange in which the entity seeking participation maintains control of decisions and their implementation.

Tips for fostering good participation:

Allow enough planning time. *Many problems in participation processes develop because of inadequate preparation within the promoting organisation - with the result that*

when community interest is engaged the organisation cannot deliver on its promises [10]
Most experienced facilitators and trainers agree that 80% of successful participation lies in preparation - so don't skimp on it. [11]

If you ask people to participate in something, they naturally want to see some tangible result of their effort. Sufficient planning will allow you to be ready to act and to produce that feedback which will impress and satisfy your participants. Anticipate what might happen and plan a range of responses. *When we wanted to start offering Internet training for the general public, we knew we couldn t do it with staff librarians who were already stretched to cover current services. So we trained volunteer trainers over several months, developed a schedule and then publicized it with a big kickoff during National Library Week. The registrations filled immediately for 2 months of training and a waiting list grew to several hundred names. Even with all that preparation, we still scrambled to schedule extra sessions to deliver on our promises. Charles Hansen*

Commitment and apathy aren t things you necessarily control. *People are committed when they want to achieve something, apathetic when they don't. But what leads to commitment? Not, in my experience, telling people you ought to care , inviting them to public meetings or bombarding them with glossy leaflets. I think people care about what they are interested in, and become committed when they feel they can achieve something. Hard selling won't achieve that. If people are apathetic about your proposals, it may simply be that they don't share your interests or concerns.* [12] This is especially true of creating online community information. Some people get very excited about the potential of the medium after only minimal exposure, others become committed only after a personal experience convinces them of its usefulness, others simply aren t interested. Cultivate the people who show interest early on and don t spend too much time hard-selling the apathetic. The folks in the middle will most likely be turned on at some point in the future. If you ve nurtured the early adopters, they will be your allies and support in generating future participation. All these processes take time. *Since 1995, the Community Access Program, an initiative managed by Industry Canada to help provide Canadians with affordable public access to the Internet and the skills to utilize it effectively, has brought close to 2,200 rural and remote communities online. The program establishes Internet centers in local schools, libraries and community centers that act as "on-ramps" to the Information Highway and provide support on how to make the best use of the Internet. Their Checklist of Success Factors*[13] *notes that personal enthusiasm and commitment are essential and that a successful project must have at least one champion who is deeply and passionately committed to the project. Wider adoption and buy-in happen when projects provide a way for members of the community to "internalize" technology, creating programs that give people exposure to what technology really is and a way for people to discover how they can transfer computer and information technology into fields that they had not thought of using it in before.*

Clear rules of the game and expectations help nurture follow through. Even excited, committed people get busy or distracted and find it difficult to consistently follow through on promises. This seems to especially plague community information sites in the maintenance phase. The initial push and thrill of publishing the site fades and keeping up with monthly event postings and news gets tedious or takes more time than initially thought. Clear rules and expectations up front about maintaining information and a system of

reminders and support can help with compliance. Training your information providers in your procedures both empowers them to act and removes their excuses for not keeping their end of the bargain. Automating functions like event calendar postings or news items in a way that allows editing via the web with a password also eases the maintenance burden. As a last resort, you can pull the plug on a site which despite your best efforts otherwise is out of date and shows no signs of being maintained. It is hard to do so, especially when you consider all the effort put into the initial publishing, but a ghost site is a disservice to everyone involved.

The biggest stumbling block so far is the matter of getting updates from people. I have created 22 local pages, and I would say the contacts for half of them are very reliable. The other half...not so great. I am sending our my second annual "Remember your web page and update it" letter in mid August, hoping it will stimulate people to get back in the swing in the fall Madelyn Ryan

Raising awareness is not just advertising. *For people to become involved in any process or project they need to be aware it is happening, see some benefit or relevance to themselves, and feel confident about their role. The three are closely linked - attempts to raise people's awareness will be more successful if they start by considering the interests of the audience, and what will be a comfortable way for people to respond. Start where people are - value their knowledge and experience. Advertising, leaflets, videos and exhibitions all have a part to play. Networking and personal contact may be more effective, particularly used with workshops techniques.* [14] The importance of personal invitation is especially strong when you are asking people to participate in an activity that is potentially threatening or has a high potential for failure. Few things alarm people over age 30 more than computers. Flyers and advertisements may pique their curiosity, but personal contact may be necessary to calm their fears of failure or embarrassment. On the other hand, children and youth are much less fearful of computers. Instead of reassurance, they may need respect and challenge. Another way to raise awareness at others comfort zone is to get out of *your* comfort zone and go to them. Visit them on their turf on their terms.

The Flint Public Library was approached by the Childhood Asthma Task Force to be a member of their interagency project aimed at addressing the serious and growing problem of childhood asthma. Librarian Grace Tucker was assigned to work with them. After the first meeting, Grace volunteered to pull together a list of resources, including relevant web sites. Grace subsequently presented the resource list to the group in print form, intending to publish it also on the FPL web site as a subject guide. However, when the Task Force began studying statistics and maps that had been developed concerning the prevalence of asthma in the Flint area, members began to consider the idea of sharing this information and other resources through a web site. Grace and the library were ready to help. With input from the project coordinator, Grace worked up a prototype and distributed a printed copy. An impressed group gave the green light and the result can be viewed at <http://www.flint.lib.mi.us/catf/catf.html>. In this way, an invitation to participate was turned into an opportunity to demonstrate the usefulness of online information and engage the group in new ways to accomplish their mission. Personal contact was key.

Aims and objectives go both ways. If you are trying to get people to participate rather than partner, you are by definition deciding the agenda and imposing your goals on the situation. Be honest and forthright about them

from the beginning. Spell out the rules and expectations governing the interaction. Even if some potential participants drop out, it is best that they do it for clear reasons and not out of disappointment or frustration because of unclear ground rules. However, don t forget that your potential participants still have personal goals. They may want to learn a new skill, escape their office, or meet new people. Try to discover these and satisfy them to the extent possible without sacrificing your own goals completely. The result will be happier participants.

Step Three: What is your plan?

Regardless of who is participating and how, a planning process which yields a clearly defined mission and plan of action with measurable outcomes is essential. You may find yourself fleshing out your ideas and dreams from step one, especially if you don t build partnerships, but don t be surprised if the planning process takes you in unanticipated directions.

Plan Elements

Planning schemes come in many flavors, but the end product usually has answers to the following questions:

- What is the mission or purpose motivating our work?
- What values will guide our work?
- What goals will we strive for in fulfilling our purpose?
- What are the practical, concrete steps we need to take to achieve our goals? Who is going to do them, when, and with what resources?
- How will we know when we ve achieved our goals?

It doesn t have to be long or fancy. The important thing is that it reflects a genuine process of deliberation and decision making and serves as a tool to focus the work. It should be a ready reference and be changed when circumstances require.

Writing a thoughtful plan takes a lot of work and time. It is tempting to discuss ideas and form consensus as you go along, but the value of writing your plan down becomes obvious when things start to feel muddled, conflict arises, or you need to repeatedly inform others about the project.

Writing things down is insurance. You can fax it around and people can react (or not react) which then allows them to feel informed and involved, and gets you off the I didn t know hook. Relationships are maintained while allowing things to move forward
Allyson Knox

Planning Processes

There are many roads you can travel to arrive at a workable plan. Your organization may practice a particular method already or you may need to do some reading or attend some training to gain some familiarity with the process. You may encounter resistance to participating in a formal process if those involved have had previous planning experiences which were poorly facilitated or were ineffective. Finding solutions that work for all the members sometimes requires a bit of individual discomfort and risk. However, good planning processes are designed to make sure that all the partners feel comfortable working together, share a common purpose and create a workable plan in which all can take ownership. It also helps anticipate problems and stumbling blocks so that you can plan strategies to

overcome them from the beginning instead of being caught off guard and struggling midstream.

Outlined below is a generic outline of planning steps with some basic information about specific techniques which can be used to help with that step. More information about techniques can be found in the resources in the bibliography. Most of the technique descriptions were adapted from Wilcox s Guide to Effective Participation. You don t have to do every step. Choose the steps which seem most helpful for your situation. In general, the more diverse your partners or the more ambitious your aim, the more thorough and formal your process should become to ensure a good result.

Pre-planning

Figure out the players. Determine who could be involved in and impacted by the planning process. One technique for doing this is a stakeholder analysis, in which the following questions are answered: Who will benefit from your work? Who might suffer as a consequence of your work? Who has the power to help or hinder you? Who has relevant skills, money, or equipment? Who has authority to make and enforce decisions?

Common strong supporters of community information projects are libraries, universities, and individual community activists and computer professionals. Other commonly involved stakeholders include local government, K-12 schools, businesses, media, and health care agencies.

Set a timetable. Determine how long the planning process might take not the whole project, just the planning stage. Your potential team members will need a sense of what they are committing to initially. During the actual planning process they can decide the extent of their involvement during implementation stage.

Decide who among the stakeholders will be partners. Invite them to be involved in the planning process. You may also identify and make informal contact with potential participants to give them a heads up or to gauge their interest. It can be helpful at this point to review the partners or participants sections. *Don t contact us too late in the game. We may not wish to get deeply involved in the planning, but keep us informed. If you spring something on us at the last minute and want us to participate on your timetable, that can be hard to say yes to. Allyson Knox*

Research and disseminate background information. Your planning team needs to be fully conversant about the issues that the planning will address.

Ensure that the participants understand the background information. This can be especially necessary and tricky for technology projects where experience and skills vary considerably. To compound this problem, sometimes the people at the decision making levels of organizations have the least experience and are reluctant to show their ignorance. Some techniques for this are

- informal contacts to ask and answer questions.

- a pre-planning exploration workshop such as hands-on time with the Internet or site visits.
- Communities Online Game[15], a simulation in which technology models are explored to address given scenarios with fixed resources

Planning

Craft a mission statement: Alternate names for the mission are purpose or vision. As a group, develop a short statement that describes the ultimate aim of your work qualified with some statements that indicate how. For example, if you want to publish local health information online, a mission statement could be We seek to improve the health of individuals and families in our community by using Internet technologies to connect people with local health services. If the pre-planning has been done effectively, everyone already has a general sense of the aims. One technique involves having each individual write a mission statement, then share and discuss them, identifying agreements and discussing disagreements. Blend them into a group statement by consensus. Try not to get stuck on nitpicking word choices. You can return to the mission statement later and polish it. Working through the remainder of the planning process can help clarify things.

Sample missions statements for community information projects are available through the bibliography.

Discover and commit to shared values. Discuss and form consensus about the values which the group will try to uphold throughout the project. Values commonly expressed (and hotly debated) by community information projects include:

- ensuring access for disabled and otherwise disadvantaged people
- respecting privacy of individuals
- minimizing financial barriers to participation
- striving for accuracy, quality and balance in information presented
- promoting the free flow of information and respecting the individual s right to choose what information is appropriate for their needs
- not discriminating based on gender, class, age, race, or ethnicity

Understand the Environment: Create a shared understanding of the various factors which will effect your ability to fulfill your purpose.

[I was least prepared for] the challenge from commercial businesses encroaching upon virtually every area of traditional nonprofit activity (education, libraries, medicine, and so on.), in large measure because of the shift in the economy to an information/service base. one respondent to the question what happened that you were least prepared for? posed by the Benton Foundation of participants at

the Up for Grabs conference, a gathering of community practitioners to discuss telecommunications policy[16]

Some techniques for understanding your environment include:

- an environmental scan, in which the group lists factors external to the partner organizations and beyond their control which may influence for good or ill the ability to achieve objectives, then do the same with factors internal to the partner organizations. Because these factors are beyond the direct control of the partners, this exercise serves to air and acknowledge honestly the limitations of the plan, recognize the role simple good fortune may play, and serves as a check against assumptions.
- a SWOT analysis, in which the group brainstorms internal Strengths and Weaknesses as well as external Opportunities and Threats. Then discuss ways to build on your strengths, address weaknesses, exploit opportunities, and avoid or eliminate threats.
- force field analysis, in which the group lists forces acting in favor of your mission and those against it. Underline the most important forces, and of those identify those which can be influenced. Brainstorm lists of strategies for magnifying the positive forces and reducing the negative forces. Reducing the negative forces is a tactical approach which is often overlooked and underestimated.
- surveys, in which a formal needs assessment or assets inventory is undertaken. This is sometimes necessary when there is not enough information known about a situation to accurately describe the forces at work.

See the bibliography for more resources to help you with these planning techniques.

Decide what the group is going to do. We will call these goals. They should be short descriptive statements of ways in which the mission will be achieved. For example, one way to to improve the health of individuals and families in our community by using Internet technologies to connect people with local health services is to create a popular web site which helps users discover the relevant local health resources available to them to address a specific health concern.

This planning step can be achieved through a process of generating options, analyzing them, and choosing the best ones. Some techniques for generating options include:

- brainstorming, in which the group quickly and intensely, without judgement or regard for practicality, lists possibilities. The ideas are posted for all to see to encourage piggy backing. The goal is quantity in a set amount of time. The next step is to go back over the list and cross off ideas which all agree are out of the question. Group similar ideas into workable options. Brainstorming is usually more appropriate for groups of 5 to 20 people.
- nominal group technique, in which individuals or pairs are asked to work for 10-15 minutes on answers to a specific question (in

this case a re-statement of the mission in question form). The results are then shared with a larger group of 6-8 people and listed for all to see. Others can ask for clarification and refinements can be made. Each member then votes for his or her top five options. If the planning group is large, the top five options arising out of all the sub-groups are presented to a session of the whole. Similar options are consolidated.

Some techniques for analyzing options include:

- a simplified cost/benefit analysis, in which three columns are filled in for each option costs, benefits, and unknowns. If the unknown information for an option prevents a fair determination of its value, try to find out the information and apply your new knowledge to the appropriate cost or benefit column.
- pros and cons, in which arguments for and against each option are listed. Below the pros and cons list other influencing factors.
- head and heart, in which the following questions are answered yes or no: Does this option meet a real need? Is this option fully developed and thought through? Does this option reflect our values? What does our intuition say? Does the customer deserve better?

Some techniques for choosing among options include:

- discussion and consensus.
- criteria and ranking, in which criteria for judging among the options are developed, then each option is ranked in regard to each criteria. Total ranking is then added up and the ones with the highest totals win. Ranking can be done as a whole group by consensus, or individually. When developing criteria, review your values.
- proportional voting, in which each member is given 10 votes which he or she can spread among the options in whatever way he or she sees fit. The options with the most votes win.

See the bibliography for more resources to help you with these planning techniques.

Decide how the group is going to achieve the goals. These can be called objectives, strategies or action steps. They should be short descriptions of measurable actions which will help achieve each goal. For example, one strategy for creating a popular web site which helps users discover the relevant local health resources available to them to address a specific health concern is to compile and program a searchable directory of local health resources indexed by health concern by June 15, 1998. Another might be demonstrate how to use the directory to 1,000 people by September 30, 1998. Making your objectives measurable is very important. How will you know when you are finished or if you ve been successful if you haven t defined this for yourself? Deciding how to measure your success depends on external and internal values. How will your work

be judged by external people? What will it take to satisfy yourselves? Some example measurements for community information projects:

- Quantitative production measures: how many sites, records, pages, or megabytes were produced?
- Qualitative production measures: How significant is the resource culturally? How unique is the resource? How attractive is the product? How important is the information?
- Quantitative impact measures: How many times were web pages viewed? How much time did users spend at the site? How deep into the site did users go? How often and what percentage of users return to use the site again? How many and what percentage of the community is aware of the resource? How many and what percentage of the community have effective access to the resource?
- Qualitative impact measures: How did information impact user s lives? How satisfied are users with the product? How accessible is the product for people with disabilities?
- Quantitative participation measures: How many people were trained? How many organizations were engaged? How many people are impacted indirectly by each organization s involvement?
- Qualitative participation measures: How satisfied are project participants? How did participating in the project effect individuals? How did participating in the project effect how community organizations carry out their missions? What unanticipated benefits arose from the relationships created by this project?
- Quantitative effectiveness measures: How quickly can users find what they need? What percentage of the true extent of the information is represented and accessible online? How many and what percentage of users found what they wanted or needed?

Like the goal setting step, the strategy planning step can be achieved through a process of generating options, analyzing them, and choosing the best ones using the techniques outlined previously.

Assign responsibilities to action steps. For each action, identify who is going to do it, by when, and with what resources. If the required staff and resources are yet to be committed or generated, identify the requirements and add an action step which secures them.

Decide how and when to measure outcomes. If you have written good action steps, you will have a list of outcomes that can be measured. Now decide what information needs to be collected, and when and how to collect it. Don t forget that some outcome measures only make sense if compared to measurements taken at the beginning of the project. Don t forget to assign these tasks!

Staffing

A great deal has been shared already regarding the art of partnering and promoting participation. Here are some further guidelines on staffing your community information project.

Pay people. It sounds simplistic and it isn t always true, but people tend to behave more accountably when tasks are tied to a paycheck. If at all possible,

critical functions of your project should be performed by people who consider it part of their jobs. This doesn t mean you have to create and fund full time positions. It can be accomplished by hiring contractors, part time employees, or committing a percentage of an existing position to the assigned task. Internships or cooperative education positions, if structured carefully to the timeline of the project and filled with a capable candidate, can also be a creative staffing solution.

With 1997 LSCA money, the Lapeer County Library launched a year long initiative aimed at publishing Lapeer County government information on the Lapeer County Information Depot (LCID), the local community information server <http://www.lapeer.org>. Oversight and coordination of the project was performed by Cynthia Terwilliger, assistant director of the library whose position included such duties and who was also community information development chair of the Lapeer County Technology Coalition, overseers of LCID. With LSCA funds, the library hired a contractor and a college co-op student to help implement the project. The three worked together throughout the grant to coordinate the grant activities. As the government outreach project wound down and the contractual staff were finishing their involvement, Cynthia also accepted a new job outside Lapeer County. The Technology Coalition that oversees LCID saw enough value in the progress enabled by these paid positions that they set about raising money to retain the continued services of the co-op student to serve as webmaster for government, library and community service organizations.

"Without funds for a project facilitator and assistant, I am certain that our vision of a content-rich site providing information for all county departments and helping to meet the information needs of the residents of Lapeer County, would not have been attainable. The writing in of funds to support these positions and the scheduling of time for me to work with them was critical to our success Cynthia Terwilliger

Hire consultants carefully. Sometimes it is necessary to hire expertise which does not exist in your project team or that there is not sufficient time or resources to develop. Often in community information projects, this is a technology specialist who helps with planning, installation, programming or training, but it also may include a professional facilitator or administrator, depending on the dynamics or size of the group trying to work together.

A successful experience with a contractor is a two-way street. It starts with a well written, detailed description of the work to be performed and an explanation of other requirements such as deadlines, reporting, and participation in administrative processes. Include in your plan how the functions performed by the contractor will be carried forward after her terms of work are finished and she is gone, and include in the contractor s work plan any activities necessary for knowledge transfer. Clearly define the deliverables and criteria which govern the successful fulfillment of the contract. Ensure that all payment procedures are in place through your designated fiscal agent. Define for yourselves and the contractor where she fits in your org chart, chain of command, and communication channels. Give her an orientation you would provide to any new member of the team.

On the other side of the coin, ask for and check the references of a potential contractor, not just for subject expertise, but for work style, timeliness, and responsiveness to the customer s needs. Gauge her ability to see beyond the deliverables to how they fit into the mission and goals of the project. Ensure

that her communication skills match your needs for communication. Pay a fair price for experience, but feel free to bargain if she doesn t have direct experience in the skills you want. However, you must be confident in her ability and motivation to learn and deliver. Finally, decide whether geography is important to you. Depending on the individuals involved, you may not have as easy access to an out of town consultant, or you may find it harder to communicate or keep her accountable. On the other hand, sometimes local politics make an outside contractor desirable or the skills simply don t exist in the community.

Be deliberate about spreading the work around. Nothing burns a person out faster than assigning (or volunteering for) an unreasonable work load. Sometimes a person feels obligated to volunteer or is singled out because he has the most skills. An alternative to piling more work on his plate is to lengthen the timeline for completion of the task and appoint someone who is motivated but not as skilled. Another technique is to do a skill inventory of the team to discover talent or experience lurking in the group. At the very least, take something off his full plate before adding something new. Two more reasons for spreading the work around is to avoid the formation of cliques which upset the balance of power in a team, and to guard against disaster if your worker bee is assigned to another hive.

Treat your volunteers like paid contractors. Sometimes people fall into the trap of believing that volunteers will be an easy answer to staffing problems. They belatedly discover that managing volunteers is hard work. Volunteers are just like contractors, except their payment is something other than money. Sometimes it is the opportunity to gain experience or learn a new skill. Sometimes it is the reward of helping other people. Sometimes it is to make new friends, get out of the house, or to feel useful. Sometimes it is to fulfill obligations like a service requirement for graduation, a work requirement to receive government aid, or part of a sentence served for a crime. Whatever the compensation, the volunteer manager should know what it is for each volunteer and understand how that effects his or her accountability. Aside from that important distinction, the section on hiring a contractor applies equally to volunteers.

Over time, I noticed three patterns among our volunteers. One set of people stopped participating as soon as the novelty wore off. They were extrinsically motivated by learning something new, but once the work got repetitive, they no longer were committed. Another set of people stayed with it a little longer even when the novelty wore off because they felt they had made a personal commitment and wanted to fulfill their obligation. The third set, mostly retirees or those without other strong demands like a family or work, have stayed on and can t do enough! They are so self-motivated that they find ways to make it interesting and fresh for themselves. Volunteers are a valuable asset, but they do require time and energy not only to find, but also to train and retain. Charles Hansen

Don t overlook untraditional populations. Either because of stereotypes or uncreative thinking, many sources of personnel are often overlooked, perhaps because the planning team itself is relatively homogenous, if not by race, gender, and ethnicity, probably by age or education.

Senior citizens can be fantastic resources in a community information project they often are retired and have flexible schedules (but don t assume

they aren t busy!), they tend to be very loyal and responsible, they often have deep roots in the community and know a lot of people, and contrary to stereotype, many are eager to learn about computers and become skillful users.

Youth can also make excellent personnel. They often combine the enviable qualities of curiosity and fearlessness which are important to mastering and exploiting technology. (Although to be sure, too much fearlessness should be tempered with adult guidance. Learning to balance exuberance and responsibility can be a valuable maturing process for kids.) Youth also tend to have open minds, creativity, and energy. If managed well and treated with respect, youth can make important contributions.

All of our help desk folks have been high school and college age kids. They know a lot about the technical aspects of unix, sendmail, configurations, and the like. In our new library, we re going to have 19 public access computers in a special room and this will be staffed with high school and college students. Mike McGuire

Other overlooked populations might include disabled people, ethnically or culturally isolated groups, and the economically disadvantaged. The key to getting involvement from any group is to make contacts, build bridges of trust and understanding, and be sensitive and accommodating to special needs. It is tempting to assume that the accommodations will take too much effort or resources, and then use this as an excuse not to reach out. Casting a larger net does not require sacrificing the goals or standards of your project. If handled skillfully, it increases the chances for success.

When the Genesee District Library was seeking participants from organizations in Montrose, Michigan who were willing to learn how to build and maintain web pages on the Genesee Free-Net, an older woman volunteered from the Senior Center. She had suffered a severe stroke years ago and had relearned how to walk and talk, but had not recovered the use of her right arm. She was interested and motivated, but not very confident of her ability to operate a computer. With some adjustments to monitor resolution and the mouse, patience, and encouragement, she was very successful. She paid back the extra attention with loyalty to the project and invaluable word of mouth marketing.

Financing

Where to find the money for new technology? There are often two phases in the financing of a project, startup costs and continuing costs. There are various strategies for both.

Seed Money

Grants Some of the big dollar, high profile, competitive grant opportunities for community information projects are:

- **The Telecommunications and Information Infrastructure Assistance Program (TIIAP)** TIIAP is administered by the U.S. Department of Commerce. It provides matching grants to non-profit organizations such as schools, libraries, hospitals, public safety entities, and state and local governments. Grants are used to fund projects that improve the quality of, and the public's access to, education, health care, public safety, and other community-based services. The grants are used to purchase equipment for connection to networks, including computers, video

conferencing systems, network routers, and telephones; to buy software for organizing and processing all kinds of information, including computer graphics and databases; to train staff, users, and others in the use of equipment and software; to purchase communications services, such as Internet access; to evaluate the projects; and to disseminate the project's findings. More information about this very competitive program is on their web site: http://www.ntia.doc.gov/otiahome/tiiap/index.html

- **Library of Congress/Ameritech National Digital Library Competition** With a gift from Ameritech, the Library of Congress is sponsoring a competition to enable public, research, and academic libraries, museums, historical societies, and archival institutions to create digital collections of primary resources. More information at http://memory.loc.gov/ammem/award/index.html
- **National Endowment for the Humanities** Various opportunities exist for digitizing collections within the funding guidelines of the National Endowment for Humanities Divisions of Preservation and Access, Public Programs, and Research and Education. http://www.neh.fed.us/index.html

At the state level in Michigan, some opportunities include:

- **Library Services and Technology Act (LSTA) subgrants** The Library of Michigan administers a competitive subgrant program through The Library Services and Technology Act. The advanced technology: research and demonstration projects funding area is designed to help Michigan libraries be forward looking and to participate in leading edge projects to help to develop the next generation of information skills and technology. This funding area is intended to assist libraries and library networks in pioneering new applications of information technology, and in sharing their knowledge with other Michigan libraries. More information and applications are available on the Library of Michigan web site: http://www.libofmich.lib.mi.us/lsta/lstaprog.html
- **Technology Literacy Challenge Fund (TLCF)** The Michigan Department of Education administers the Technology Literacy Challenge Fund which awards "competitive grants to local and intermediate public school districts and academies to promote the acquisition and effective use of technology and telecommunications to improve the delivery of educational services." Some funded projects include using technology in community education, outreach with the business community, and school/family support. More information is available at http://www.mde.state.mi.us/money/
- **Michigan Humanities Council** The Michigan Humanities Council encourages proposals for collaborative projects in communities, especially in those with limited access to humanities programming and resources. The emphasis is on partnerships that use the disciplines of the humanities to explore community issues and concerns. More information at http://mihumanities.h-net.msu.edu/grants/index.html

Also explore local or regional grantmakers such as Community Foundations (consult the Council of Michigan Foundations for pointers http://www.novagate.net/~cmf/). It may require some extra time and effort to educate local foundations about the technology, but local funders are often more accessible and flexible, with less competition and bureaucracy. Especially for first time efforts at community information projects, it can be overwhelming to be infused with cash and saddled with the restrictive grant administration requirements of large grants.

An excellent starting place for grant quests is the Foundation Center, publisher of the Foundation Directory and Philanthropy News Digest <http://www.fdncenter.org>. Remember that you aren t looking for grants for computers and networks. You are simply using technology to address health, history, children s issues, etc.

Sponsors Another source of start-up funds for community information projects are sponsors. Of course the partners who are planning and implementing the project may also contribute funds. However, there may be local businesses, organizations, or individuals who could be convinced to lend financial support without being involved in the day to day planning and implementation. Sponsors can be acknowledged in on-screen credits and marketing materials. You ll want to keep the list of sponsors small by asking for significant funding from each. Too many sponsors devalues the public relations boost for each sponsor. If you want to approach many groups, consider a direct appeal fundraising campaign.

When planning a corporate funding campaign, there is one basic fact that must be recognized: ***they don't have to give*** *. . .every contribution represents money that would otherwise have gone to pay taxes, to pay shareholders, or to reinvestment in future growth. Charitable support is generally seen as an "investment." Companies are looking for a primary benefit to their community of customers, employees, and shareholders, and only secondarily to the society at large. Given this very business-like attitude its easy to understand that the following are the main reasons companies give: supporting services that benefit employees and their families, supporting services that educate employees and raise their skill levels, providing public recognition and prestige to the company, improving the market for a company's products, supporting the personal interests of senior management, supporting groups in which employees are involved, responding to peer pressure, and maintaining good community relations.* [17]

Direct appeals A direct appeal fundraising campaign can be a wonderful, if not exhausting, way of creating widespread awareness and buy-in for your community information project. Between your planning and implementation phase, an effective presentation trotted around to every service club, association, government office, church and social hall can raise funds while also serving as an informal barometer of community interest and readiness. However, be ready with a clear plan and budget, ask for a target amount from each group or provide a scale of giving levels, and be ready

administratively to take donations. Sometimes an incentive is also effective (but make sure you can deliver on it).

Sell the benefits, not the technology. Potential funders may be mystified, terrified, or just plain uninterested in technology itself. Talking about computers may raise images of the last bad experience they had with a phone answering system, an ATM, or computerized record keeping system. *Tailor your explanation of the benefits of your networking project to the various program areas that do interest your potential funding partner. This may be obvious, but it is pretty hard to do. Never mention bandwidth until invited to do so by a program officer* [18]

Continuing Funds

Many community information projects stumble on the issue of financial sustainability, especially if the start up costs were funded with grants. Think about both stages of financing when planning your project. Some approaches used by others include:

Institutionalization Although worrying about the financial sustainability of a community information project may lead you to feeling like *you* need to be institutionalized, what I mean to say is that there are many existing organizations in your community who may incorporate significant portions of the ongoing costs into their operating budgets. A library is certainly a likely candidate. Local governments, higher education, United Way and local media companies are others. Strategic partnering with these types of entities from the beginning will help them discover how these activities relate to their mission and perhaps lead them to embrace community networking as central to their work and thus a regular part of their budget.

Grants A patchwork of smaller grants aimed at specific aspects of your overall community information project can provide needed funds. This approach is good for adding new resources or enhancing existing ones through training or marketing, but it is difficult to win grants for ongoing operational costs like staffing, connectivity, or data maintenance. Another way to benefit from grants is to be written into other grants as a tool for marketing, communication, or coordination. For example, if a child care partnership writes a grant to improve child care opportunities in your community, the budget could include funds for using your community information project to publish a directory or facilitate the work of the group online.

Sponsorship and Direct Appeals See these sections in the start-up funding section. These approaches can be used repeatedly throughout the life of a community information project.

Fees Some community information projects charge fees for services. The first consideration is whether fees are compatible with the values of the project. Libraries often have strong feelings about erecting any financial barriers to participation or access and decide that fees work against their aims and image as a democratically supported public good. They would rather exhaust all other avenues of fundraising first

or limit the project rather than charge fees. However, community partners may not share those values or even understand them. These value conflicts are often central to the decision about imposing fees. If you do decide to charge fees, it requires careful planning and a sound business model. Make sure the fees are worthwhile, meaning that they don t cost more to administer than they do as a source of income. Survey carefully what your target market can afford and will pay. If your services were free in the past, will users balk at imposed fees down the road? How will charging fees increase the expectations of users for service and support? Weigh the pros and cons of competing with local commercial access, web design, hosting, and training businesses. Might a tiered system work, where basic services are free or low cost and enhanced services cost more, or in which target audiences are given preference?

Some common services for which community networks charge are dial-up Internet access, email accounts, web page hosting, web page design, discussion group hosting, domain name registration, special programming for interactive web page features, and consulting.

Advertising If your community information site generates a lot traffic the opportunity to advertise on it may be an attractive option for local businesses and a source of income for your project. Again, this requires careful planning and a sound business model. Would the benefits outweigh the costs of administration? What would advertisers be willing to pay? How would your users react to advertising? How would you maintain separation between the creation of content and the influence advertisers? Would your stance on user privacy be compatible with gathering the statistics necessary to be able to effectively sell advertising? *CityCare in Las Vegas <http://www.citycare.com/> provides an interesting advertising framework to support web based communication of area non-profits.*

Record Keeping

Whatever funding mechanisms you employ, keep careful records, not only for auditing and accountability, but so you can use them for effective planning. Track all donations, assigning dollar values to in-kind goods and services. In addition to providing essential documentation for grant writing and fund appeals, assigning dollar amounts to in-kind resources also acknowledges and reminds the planners of the value of volunteers. Track the costs of raising money so that you can determine which methods are most cost effective.

Training

Training, training, training. If you think your community information project won t need it, think again. Even if you have the luxury of assuming that your end users are savvy Internet users, you will probably need to address the learning needs of some other human component of your project, be they funders, planning partners, information providers, or the implementation team. Online technologies are too new and the rate of innovation is too

constant for any project to stand still in respect to training. This section will help you think through the aspects of addressing this need.

Why train?

The answer to this question will shape your training approach. Are you

- enabling end users to use your product effectively?
- building a base of familiarity and comfort with online technologies?
- enabling your implementation team to create your product?
- enabling individuals to train other people?
- empowering people to create their own learning opportunities and skill development?

Who needs training?

- Do your funding sources understand the implications of your project enough to give money and support?
- Do your decision makers understand enough about how the technology works and how it is used to make informed decisions?
- Do your implementers know how to do everything you want them to do?
- Do your end users know how to use your product?

Who will deliver training?

- Do sufficient training skills exist within your implementation team?
- If not, do you want to create those skills within your team with help from outside expertise, or bring in outside expertise to implement all training?
- What sources of training expertise exist in your community? Do local universities, community colleges, vocational/technical training centers, school districts, libraries, Internet service providers, computer stores, computer training companies, or cybercafes offer training?
- What relationships already exist with possible training partners outside your community? Can distance learning tools be used with them?

Who will pay for training?

- Will you refer students to existing training opportunities that they pay for themselves?
- Will partners provide funds and in-kind resources to develop and deliver your own training opportunities?
- Will you offer cost subsidies or scholarships?

Will you offer training opportunities free of charge? A common problem with free, first-come, first-served classes for the general public is keeping participation levels adequate to justify costs. The problem is usually not registration levels, but rather no-shows. Some ideas for minimizing the no-show problem are keeping a short lead

time between registration and the date of the class, reminding registrants beforehand by phone or mail, requesting that adequate notice be given for cancellation, collecting a registration fee which will be returned to them when they attend, black-listing no-shows from registering for future classes, intentional overbooking.

When is training needed?

- Before planning, so that sound decisions are made?
- Before implementation, so that good products are created?
- During marketing, so that users will be successful?
- All the time, so that a broad base of knowledge can be established as a foundation for further learning?

Where will training happen?

- What computer training facilities are available and at what cost?
- How close can training occur to the participants? Geography greatly influences the ability of students to attend and the terms of their attendance (how many times and for how long). The geographical proximity of post-training assistance also can profoundly effect the students ability to apply their learning.
- Will the training computing environment match the environment where the student will be expected to apply their training? If this is not possible, be sure to pay attention to and explain the differences.
- Will distance learning techniques allow students to learn at their own computers? This may work for students who already have an intermediate level of skill and comfort with using online technologies, but is a stretch for novice users.
- Does the training facility also serve access needs? In many situations, the training facility may be the only place which has connectivity or the specialized equipment needed for participants to do their work.

How will training occur?

Explore the cost, efficiency, and effectiveness of various training methods for various audiences and purposes. Listed below are common methods with notes on the costs, efficiency and effectiveness of each.

Method	Cost	Efficiency	Effectiveness
Face to face group instruction	• staff with group presentation skills • adequate facilities • curriculum planning • participation must be kept up to justify costs	• provides information to many people at once • scheduling constraints • size of training facility	• unless participants are carefully screened, varying starting skill levels produce varied results • hands on experience is critical for retention of how-to skills • large groups lend themselves well to information sharing and exploration of abstract concepts • good control over content of learning
Self-paced learning materials such as web sites, books, CDs, and videos	• time and expertise to evaluate and choose appropriate resources • sufficient number of copies to meet demand • access and distribution channels	• flexible for meeting a wide variety of needs and skill levels simultaneously • can happen on schedule of student s choosing • can take longer per student because of lack of question and answer interaction for	• requires internally motivated students • requires a learning style which is capable of independently bridging the gap between abstract (written, visual, or oral instruction or description) and concrete (performance of

		clarification, difficulty interpreting material, or low motivation levels.	a skill or application of a concept) • roadblocks can take a long time to resolve, meanwhile motivation wanes. • hard to ensure consistent learning across a group of students

Method	Cost	Efficiency	Effectiveness
Help desk	• staffing over an adequate number of hours • telecommunications infrastructure	• very time consuming on the provision end, repeating information to individuals • depends on level of staffing, level of demand, and the communication medium	• maximizes teachable moments, matching learning with the point of highest motivation to learn • physical distance makes communication and demonstration of complex procedures difficult • better at dispensing how-to skills than building conceptual understanding
Matching mentors with students for one-on-one or small group learning	• finding/training mentors • coordinating mentor/student relationships • resource materials or curriculum	• ability of partners to conveniently and regularly communicate • mentor/student ratio	• hard to ensure consistent quality of mentors • flexible to the learning needs, pace, and style of students
Face to face group meeting featuring sharing of experiences, skills, and information	• adequate facilities • planning and facilitation of events	• good for developing and supporting a learning habit • serves many people at once • one meeting can cover many topics via simultaneous	• supports serendipitous learning better than deliberate acquisition of a defined set of skills or body of information • allows many to many sharing, leasing to greater

		tracks • scheduling constraints	total knowledge shared than one on one or teacher to group methods. • social aspect increases motivation

Method	Cost	Efficiency	Effectiveness
Computer based discussion forums and resource lists	• skilled facilitator of discussion • time and expertise to create or compile learning resources	• timeliness of response depends on number and habits of participants • any topic can be discussed any time • scales well	• chicken and egg dilemma: useful information exchange depends on the level of participation which depends on the perceived level of participation or a successful prior interaction • archive of exchanges or compilation of an FAQ increases effectiveness as a learning tool • learning is student centered and tied to specific student needs • requires a significant online habit and comfort with the technology

What topics will training cover?

There is a rough continuum of Internet related skills which implies a need for sequential development. You can t expect people to publish online before they have become regular users of the Internet, familiar with what works and what doesn t; and you can t expect people to become regular users of the Internet if they haven t learned how and where to access to it. For each intended audience, identify where they currently stand versus where you need them to stand along the continuum. Plan training topics accordingly.

Aside from technological skills, what other topics might need to be covered? The increasing volume and strategic importance of information has underlined a general lack of skill in evaluating information. To what extent will that impact your achieving the goals related to your project s mission? Also, if your project involves partners, do some of those involved need training in planning processes, group facilitation, conflict management? How about management skills?

Marketing

If you build it, people will not necessarily come. There is nothing more sad than a fantastic online resource that no one knows to use. Marketing your community information project needs to address three fronts: online visibility, or how you are going to help those who are online discover and use your site; community visibility, or how you are going to use more conventional marketing methods to draw local people to your resource; and customer retention, or how you are going to encourage repeated use of your site.

Online Visibility

The key to online visibility is to maximize the number of links to your site in places where your intended audience will see them. Some

strategies follow. Resources for learning about how to implement these strategies are in the bibliography:

- Register your site with the major search engines. They all have submission forms you can use yourself, but realize that it can take time (months!) for your site to be indexed and available for searching.
- Include metadata tags in the heading of your pages. This improves the chances of your page being found through the large search engines. See The Webmaster s Guide to Search Engines from *Search Engine Watch* for more explanation of how search engines work and how to make the most of them <http://searchenginewatch.internet.com/webmasters/index.html>.
- Request that your site be included in appropriate subject directories or parent sites. Are you a local chapter of a national or international organization? Request a link. Find out which subject directories serve your intended audience and request to be included.
- Negotiate with local Internet Service Providers to announce your existence to their users and link from their opening screen.
- Consider buying advertisements on other sites, or negotiate the placement of a banner ad for your resource as a pubic service announcement on the web pages of other local organizations or even national level, high traffic sites[19].
- Use advertising techniques within your own web site to draw users attention to other aspects or features of your services. If you host many individual sites, link them within a framework that generates cross traffic. An example is ZDNet <http://www.zdnet.com/>, the home for a myriad of Ziff Davis Publishing products. Notice that in addition to paid advertising, they include ads for their own services.
- Encourage everyone involved with the project to include the URL of your resource in their email signature files. This is a quiet way of advertising one-to-one or one-to-many when individuals post messages in discussion lists.

Community Visibility

Because online marketing does nothing to attract users who are not active online users, traditional marketing techniques are also necessary.

- A steady stream of press releases to local media noting new resources, unique stories, or compelling progress reports
- Advertisements or pubic service announcements in local media
- Signs and banners. *Washtenaw County Government has posted permanent signs in high traffic areas near the entrance to every county building announcing their online services and address.*
- Inserts in mass mailings and newsletters of community organizations

- Advertising on tray liners at local fast food restaurants, placemats at local cafes, coasters at local watering holes
- Slogan and URL on giveaway items, especially items with a computer focus
- Presentations to every community gathering you can find
- Generate word of mouth among target groups

We really don t do advertising. There was a nice article in one of the local weeklies as we were rebuilding from a crash, however. Also, a Steering Committee member teaches a class on using our system once a month at the Senior Center. It really is word of mouth. Mike McGuire

Repeat Business

Finally, think about how you can encourage repeat visitors and sustained involvement.

To encourage repeated use of your site, try some of these techniques:

- Create unique, compelling services which are so useful and easy to use that they will come back for more
- Sponsor contests, quizzes or games with prizes.
- Publish coupons for local vendors or events

While this Toolkit concentrates on creating vital online information resources which will hopefully make it into your user s bookmarks or favorites lists, also think about how your users can be encouraged to become more involved than a passive surfer. The following ideas move beyond the web site and look to the use of the Internet (and the library!) as a communication or collaborative tool.

- Create a way for users of the resource to contact and communicate with each other.
- Create a way for users to interact with the information providers.
- Create a way for users to share what they know about the topic.
- Plan complementary off-line events and advertise them on the site.
- Create hooks into other non-virtual community resources and services. The Internet may attract a person who may not otherwise know what the community has to offer. For example, link references to books directly into the card catalog so a user could reserve it if they are interested.

Technology

Technology Choices

Your planning process will at times hinge on choosing a particular technology over another. Rather than recommend or review specific technology options which will be obsolete by the time anyone reads this, this section attempts to provide some guidelines for making wise choices. There are no shortcuts to researching and understanding which technology options are the best choice for a specific need at a specific time. Even if you employ a consultant to navigate you

through the maze of options, you will need to be a partner with him or her, seeking to understand the implications of various approaches.

Buy according to your current plan You cannot make wise technology choices without knowing what you want to achieve with the technology. Start with your plan. Obtain hardware adequate to support your current requirements, but which is upgradeable for future expansion. Choose software appropriate to achieve your goals one year into the future. If you buy software today because it has features you expect to use more than a year from now, by the time you are ready to use those features, better, cheaper ways of accomplishing the same thing will probably be available.

Proprietary vs. standard Knowing that you may very well migrate to a more powerful product in the future, make sure your current choice does not limit your future options. The easiest way to do that is to be sure that you are implementing technology that adheres to widely recognized standards. Having said that, however, employing new technologies means almost by definition that you will at some point need to choose a proprietary technology. The typical pattern of technology innovation involves the creation of distinct, incompatible products, one of which, either through market competition or through the decisions of standards making bodies, prevails. If you are considering using a proprietary technology, think through the worst case scenario of the company going out of business or the market deciding against you in the evolution of a standard. Can you live with the consequences? How likely is it that conversion products will be available to help those left in the lurch?

Commercial vs. shareware The tradeoffs in the commercial vs. shareware debate are cost and support. A commercial product is typically more expensive, but has more robust support options and more likelihood that upgrades will keep it in step with the evolving state of the art. This is not universally true, however. There are commercial products which have terrible support, and shareware products which have great support by means of a large body of committed users.

Customized solutions vs. out-of-the-box Similar to the proprietary v. standard debate, the decision to use customized solutions vs. out-of-the-box solutions involves the likelihood of narrowing future options. Custom, home grown functionality using standard tools can be a wonderful, inexpensive solution if you have staff skilled in creating it, but again, consider the worst case scenario of your skilled programmer getting hit by a bus (or hired by Microsoft). Can you live with the consequences? Will your customized tools be well enough documented to allow others to maintain or adjust them? Out-of-the-box solutions may be considerably more expensive and not exactly meet your functionality requirements, but they may be more easily supported in the long run.

Buy or lease? Did you know that you can lease hardware? Depending on your needs and whether technology prices continue to

decrease, leasing hardware may be very cost effective.[20] Leasing options can include the ability to exchange equipment for new models and dispose of the old equipment during the lease. As the rate of obsolescence increases, leasing may be a good solution. Leasing web hosting services for your community information product rather than acquiring your own equipment, connectivity, and support is also an attractive option financially. The tradeoff is access to the hardware and the license to install and configure whatever functionality you want.

Ease of use and availability of support If the technology you choose doesn t match the skill levels of the people who need to use it, you have made a poor choice. What good is very capable software or hardware if no one can use it? Choosing technology which fits users skill level also decreases the need to rely on support resources. However, even the easiest to use tools will occasionally confound you. What are the support resources available to you? Are there local experts who you can rely on for assistance?

Minimizing the number of programs The fewer programs and interfaces you need to learn, the easier it will be to manage your technology and support others who need to use it. Consider web page publishing. There are many functions involved in creating and maintaining a web site such as creating web pages, uploading finished pages, checking for broken links, testing for compatibility with various web browsers, etc. You can use a separate program for each function, or, increasingly, you can buy one program which performs many of these functions all under the same roof. On the server end, you can buy all-in-one bundles which include such functions as domain name service, serving regular web pages, the capability to automatically include dynamic information and process forms, host email accounts, discussion groups and chat, and analyze statistical logs, or you can acquire separate programs for each of these functions. The tradeoffs here are 1) the level of functionality in pieces of a bundle may not be as robust as in a stand alone product, and 2) a failure of a multi-purpose application may bring your whole system to a halt, whereas failure of one program in an array of programs would have more limited impact on the overall performance.

For example, in the Lapeer County Library government outreach project, the team decided to use the FTP functionality within the AOLPress HTML editor for uploading pages to the server. Even though the integrated FTP functionality of AOLPress lacked some advanced features and was somewhat awkward to use, it was sufficient for the level of publishing they were doing and considered preferable to installing, supporting and training users to use a free-standing FTP client. "We did not write money into the grant to purchase hardware or software for the departments. We felt that asking for financial obligations from the departments at this stage would have prevented participation and stifled content development. We chose AOLPress for two main reasons: 1) it was free and accessible to all of our participants 2) it was an intuitive browser and editor that did not have a large learning curve. This was another critical factor. The people we were working

with were fitting this project into their already packed work schedule. We wanted to make it as easy as possible for them to participate and to be successful. Cynthia Terwilliger

Security and stability One of the most frustrating and intimidating experiences to new users is technology that doesn t work smoothly. Unless the incentive to persevere is great, users will quickly abandon ship. Because of this low tolerance for error, the security and stability of your systems is very important. Ask for and examine the track record of the technologies you are evaluating.

Technology Management

In addition to making informed choices, effective management of the use of technology in your community information project contributes to the success of your project. Here are some ideas.

Technology assessment committee One way to cope with the dizzying churn of technology options is to empower a committee to continually investigate, evaluate and recommend new technologies which would serve the mission and reflect the values of the project.

Limit the universe of supported applications The larger the number of web designers and publishers involved in your project, the more various the software used to create the information will be. To the extent possible, make choices and set limits on the applications you will support. Decide how extensive your support of users will be, i.e. when will you refer them to other support resources.

To gate or not to gate Will you allow your publishers direct access to the server to upload and maintain their own information, or will they submit their work to a trusted, skilled individual or team who will in turn post the material? Strike a balance between human resources and system or product integrity. Why are you restricting access? Are you concerned about the security of the server or do you want to impose a quality review process on the content or design of the information? The gated option can get unwieldy as the number of publishers increases and the lag time between submitting information and posting it gets too long because the gatekeepers are swamped. The security and quality risks associated with allowing direct access can be reduced through effective training.

Automate The extent to which predictable, tedious processes can be automated, the more likely they will be performed. Data backups, link checking, and statistics analysis are three leading candidates. If you want every page you serve to be signed and dated, create automated functions which supply this information dynamically.

Technology learning curve v. participation levels If you want to get your information providers to maintain their own information, make the learning curve as easy as possible. You might consider implementing a variety of ways to publish information, each at a different level of complexity for the end user. For example, a simple page which conforms to a template could be generated by filling out an online form with a web browser, or a more complex, unique, and

functional site could be created with the investment of some training in web publishing.

One of our volunteers was very interested in publishing information of importance to seniors in the area. He first started by typing everything directly into the system using our online editor. As he became more confident, he then just started transferring text files from his PC to the system. Now, he is using Microsoft Front Page to keep the pages current. Mike McGuire

Development time v. maintenance time Is the content of your project data driven, i.e. lots of the same kind of thing, does it involve a diverse mix of materials and formats, or is the focus expression or the experience of something unique? Data driven projects can be very tedious to maintain unless careful thought goes into designing the maintenance process. Using databases behind the scenes to maintain the data takes more investment during development, but may well be worth the effort when it comes time to maintain or adjust the content. Diverse or unique materials or presentation require careful planning and development because changes can be very tedious to implement late in the process.

Design

The design of a community information site is propelled by its mission and values. This section contains issues and guiding thoughts. Implementation details can be found in the curriculum.

Define your standards. If your project involves a number of contributors, take a stance on standards. Consider the expertise level of your publishers and your objectives. What is more important to your project, the need to cultivate the skills of a variety of information providers to ensure sustainability, in which case you may tolerate more deviance from a design standard, or the need to display a polished, professional site for scrutiny? Are you more interested in the breadth of representation or the depth? Quantity or quality? Regardless of your answers to these issues, you should define a standard for accuracy and timeliness of the content you present and enforce it.

Washtenaw County decided that enforcing strict design templates on their volunteer departmental webmasters would work against their goal of developing a wide based, close-to-the-source information resource. Allowing individuality and at times, biting their tongues to hold back excessive design criticism, fostered pride and ownership. As skills and experience increased, quality also increased.

Lapeer County Library decided that templates for their county government pages provided a consistent look and feel and also enabled beginners to produce an attractive page of which they could be proud. Requests to customize the design of a subsection are negotiated in a flexible way with the overall site designer.

"Because we received funding for this project through an LSCA grant, we wanted to be sure that we could provide a model that could be used by other libraries interested in partnering with local governments to mount public information and making it accessible through the World Wide Web. We also wanted to provide clear evidence to the end-user that they were in a well-coordinated site that was organized and easy to navigate." Cynthia Terwilliger

Consider accessibility. How much control will you have over the equipment being used to access your site? Do your project values include consideration for the needs of users with disabilities or older technology? Some approaches to addressing these issues include

- define the lowest tolerable threshold of compatibility with old browsers or special equipment and clearly state your equipment requirements
- adopt and enforce design guidelines which support or at least don t exclude access by these populations.
- provide different versions of your site or significant portions of your site to provide an alternative for these populations.
- Provide a human assisted alternative for accessing the information, or access to assistive or up-to-date technology for those who don t have their own.

Because the Traverse Community Network is text-based and therefore caters to those with older computers or those with disabilities, accessibility has to take two forms: is it useable as a text document and is it readable by the visually impaired. Usually, these two go hand-in-hand. We submit our web sites to <www.bobby.org> which checks for accessibility problems. Mike McGuire

Balance user needs v. publisher needs. How will you balance user needs against the needs of publishers? Which will prevail, the desire of publishers to use bandwidth intensive multimedia, or the desperation of a user on a 28.8 modem connection? the need to keep users contained within the site to maximize their exposure to paid advertisements, or the desire to link to relevant outside resources? the ease of presenting information arranged by author or agency, or the challenge of presenting information integrated from many sources into a view that makes sense to how a user is looking for the information?

Make it attractive enough. Let s face it, attractive sites invite people to stay and explore. Unattractive sites raise doubts about the quality of the information. An ugly but useful site is better than an empty attractive site, but why not plan an attractive and useful site? Attractive does not mean you need to be Michaelangelo and use a lot of graphics. It means using good taste to make a balanced, uncluttered presentation.

The Milford Community Information Network <http://milf.tln.lib.mi.us/MCIN/COMM.HTM> is an excellent example of attractive design which won "Best of Show" in the web site category for libraries of its size in the American Library Association s 1998 Public Relations Awards Competition. The designer, Madelyn Ryan, uses small tasteful graphics she finds in clip art and is a self-taught Photoshop dabbler. Other than that she relies on her good taste to guide her.

Make it easy to use. Have you considered the needs of different levels of users? In addition to designing for successful use by first time users, your repeat users may appreciate some shortcuts. Are your navigation options, metaphors, and graphic themes consistent throughout your site? Are options well labeled with meaningful phrases or icons? Is your site searchable? Does it offer many routes to the same information? Can a user stumble into your site from a lower level page and quickly get oriented?

Fit it into the larger context. What are the implications in your design for how it fits into the larger context of the World Wide Web? Will search engines be able to index it? Is it possible and easy to create a link directly to a piece of your information? Sites employing frames or database back ends often make these two things difficult. Will users be required to learn new vocabulary or procedures? Would making your database Z39.50 compatible increase its value?

Step Four: How will you manage the work?

Once your project moves from the planning stage into the implementation stage, the importance of the facilitator or coordinator comes into play. Who will take care of the details to make sure progress is made efficiently? What can be done to minimize the bumps along the way?

Make sure everyone understands his or her role, responsibilities, and deadlines. Roles, responsibilities, and deadlines should have been decided in the planning process, but as the plan moves into reality, new people often are drawn into the process. The decision makers are often not the people on the ground who get the work done. And as explained before, you may have participants who only get involved after the decisions are made. Thus, make sure that any new personnel receive an orientation to the project, including a copy of the work plan and a clear delineation of how their work fits in to the overall goals of the project.

Identify where accountability is coming from. How many times have you been involved in a project where nothing gets accomplished? Even if there is a plan in place, unless those involved feel accountable for the outcomes, progress will be slow. Do a force field analysis talk about the forces at work in the project and understand how they are working for or against accountability. Are outside funders imposing a deadline and hinging funding on making deliverables? How much depends on individuals deriving personal satisfaction from the work? Is there a high level of intrinsic internal motivation? Are end users complaining and demanding improvements? Are staff being paid for their involvement? Do the work styles of those involved require consistent reminders and/or rewards? What are the consequences for individuals and the group if the work is not done? Work to minimize any forces which diminish accountability.

We really want to start publishing web pages for our local non-profits. But, getting this off the ground has been a slow process. We re all busy. Besides the community network, I also run the library and am in the midst of building a new main library nearly four times the size of the current facility. The Steering Committee meets only occasionally and it s sometimes hard to get everyone there even ***with*** *food. Mike McGuire*

Develop a picture of the work relationships, procedures and communication channels in your project. Develop an organization chart of those involved and clarify relationships. Draw arrows on it or annotate it with information about how communication will flow. Draw workflow diagrams of complex parts of your project so that everyone involved understands how the pieces fit together and so that it can be easily explained to outsiders or new people.

Decide how the group will sense their own progress. Will an appointed person gather updates from people and distribute a periodic report? Will individuals report progress as it is achieved via a listserv for all to see at once? Will reports be oral or written? Will records be kept online, who will have access to them, and how? How will milestones be celebrated (food, bonuses, sleep?) How often will face to face meetings take place? Will teleconferencing, phone conferencing, or collaboration software be used? Make sure these vital tasks are assigned and have adequate resources allocated to them.

Decide how progress will be reported outside the group. What are the external reporting requirements and who will fulfill them? Will progress be publicized broadly

as the project moves along or on a rollout date? Will a select group of individuals and organizations be kept informed?

How will problems be addressed? If progress is monitored, problems will be identified. How will the group solve them? Who has authority to make adjustments to the plan and how? Will key people be polled for input? Will ad hoc problem solving meetings be called? Will regular progress meetings include a problem solving aspect? Would online forums be effective for discussion and problem solving purposes?

Step Five: What are the implications for future projects?

A project which is planned and carried out with efficiency is a fine achievement in and of itself. Its value is increased even more if it becomes a catalyst for further achievement and learning. By deliberately reflecting upon and extracting the lessons or implications of a project, a team can draw energy and ideas for related projects and future work, or if done along the way, for new approaches to the same project. When the reflections are shared, others can be inspired and enriched by your experience also. Two methods of incorporating reflection are described below:

Build reflection into your reporting and problem solving processes. Reflect as you implement your project and write down your thoughts as part of your progress reporting. When you describe what you accomplished or how you decided to solve a problem, also answer these questions: Were we happy with the outcome? Why did it work or why not? What might be done in the future to improve or enhance it? Make these journals available to team members and/or others who may be interested in replicating your project.

Write an article or present at a conference. The act of writing or preparing a presentation forces you to reflect upon and record your thoughts. Such pieces are invaluable when someone else asks about your experience, when you are writing proposals for continued funding, when you plan a similar endeavor, or when you need to develop marketing materials.

People

Charles Hansen Charles Hansen is the Assistant Director of Flint Public Library. He first became involved in community networking issues when a Free-Net was being formed in the Flint area in the early 90 s. The library subsequently worked with the University of Michigan School of Information, the Mideastern Michigan Library Cooperative, and Apple Computer on the Greater Flint Community Networking Initiative which, among other things, established a computer lab, Internet connectivity, a web server, and training for staff and community members on publishing online information.

Allyson Knox Allyson currently works for Washtenaw County MSU Extension as a community development agent. Before that, she worked at the Lansing Regional Chamber of Commerce where she led a project to create an online database of career-related opportunities for youth. She has also worked with Michigan CARES, a jointly sponsored effort by the Michigan Community Service Commission (MCSC) and the Council of Michigan Foundations (CMF) to support collaborative community planning for service learning and volunteerism, and Michigan State University s Young Spartan program, a collaboration between the university, K-12 schools, and business.

Mike McGuire Mike has been the director of the Traverse Area District Library for 18 years and is the System Administrator of the Traverse Community Network. The library is home to the Traverse Community Network, a community-centered computer network offering local and global information and intercommunication through e-mail and access to the internet.

Madelyn Ryan Madelyn Ryan is the Coordinator of the Milford Community Information Network. Before completing her MLS at the University of Michigan in 1996, Madelyn was a high school teacher in English and journalism, an adult education instructor, and a community volunteer in Farmington Hills.

Cynthia Stilley Cynthia Stilley is a children and youth librarian extraordinaire at Flint Public Library. She was introduced to web publishing in 1995 and immediately saw its potential as a tool for working with the community. Although she will modestly and untruthfully claim incompetence as a webmaster, she never misses an opportunity to involve young people with the Internet, leading them in ambitious publishing projects.

Cynthia Terwilliger Cynthia was until recently the assistant director of the Lapeer County Library. While there, she was instrumental in fostering in fostering content development and a re-design of the Lapeer County Information Depot, a community network for Lapeer County jointly sponsored and supported by the Lapeer County Library, the Lapeer Community Schools, and the Lapeer Intermediate School District, with participation from other community support agencies. She also has worked hard to promote the Marguerite deAngeli collection owned by Lapeer county Library and continues working to share Mrs. deAngeli s legacy broadly through web based exhibits. Cynthia is currently in Ann Arbor working as an Internet specialist with the Washtenaw County Library and as the Projects Coordinator for the School of Information Community Information Systems Workshop at the University of Michigan.

David Wilcox David spent 12 years as a journalist in England, mainly with the Evening Standard in the 1970s. Since then he has worked as a consultant, trainer and

writer specialising in community participation and partnership building. He became interested in online community networking in 1995 and has since worked with various community networking projects, including UK Communities Online a new initiative that promotes the Information Society on a human scale. They are developing a three year campaign to enable everyone in the UK to be able to join in their own local online community.

Project Profiles

Lansing Regional Chamber of Commerce Career Connections

Description

The Lansing Regional Chamber of Commerce Career Connections web site is a searchable database of Chamber members career-related opportunities for youth. It helps match students, educators and parents with locally available resources related to career exploration and job readiness. It has been designed and built and is poised for the next stage of data collection, training, and promotion. It is not yet available publicly on the web.

Partners and Participants

The primary partners in this community information project are the Lansing Regional Chamber of Commerce, specifically their Business Education Alliance consisting of volunteers from among the membership; Tri-County Michigan Works (the outreach arm of the Michigan Jobs Commission in Ingham, Eaton, and Clinton counties), who provided funding through their School To Work program; and Holland Systems, a vendor of custom database solutions.

A much wider group of stakeholders were kept informed of the intentions and progress of the project, including the staff and membership of the Chamber as a whole through reports and newsletters and gatherings of educators in the tri-county area through presentations at conferences and information sharing meetings

The design stage required focussed work by a small group of partners with input from stakeholders. The next stage of data collection, training, and promotion will involve the widest base of participation possible, endeavoring to reach all the Chamber members, students, parents, and educators in Ingham, Eaton, and Clinton counties.

Staffing

The implementation of this project was managed by Allyson Knox, the Director of Community Development at the Lansing Regional Chamber of Commerce. She convened and, with Holland System s technical expertise, facilitated 5 volunteer members of the Chamber to work intensively on designing the site. This committee was diverse in its representation of local business/education relationships. It included a banker, a financial planner, an entrepreneur who does science programming in schools, a consultant in school-to-work programs, and a high school counselor. A contractor, Holland Systems, was hired to implement the committee s design.

Financing

Startup funding came from 1997 and 1998 Lansing Tri-County Michigan Works! School-To-Work grants. The web site was one aspect of an overall marketing initiative promoting linkages between the education system and employers.

Considerable in-kind support came from the expertise of Chamber members.

The continuance of the project will require coordination of data maintenance by the community development staff of the Chamber. The content itself will be provided by the Chamber Membership. Training and awareness of the resource will be a regular feature of existing outreach efforts. Ongoing technology costs are part of the Chamber s overall online publishing budget.

Training

Training will involve extensive outreach to both the business community to help them enter their information and later with the education community to help them learn to use it with students. During the design stages, good groundwork for training was laid by taking care was taken to keep potential participants apprised of progress and the vendor also was required to develop both a technical guide for system maintenance and a user guide to help with training those who will enter and search information.

Marketing

Because the database is not yet populated and available for use, no marketing activities have yet taken place. However, because the Career Connections database is part of a larger marketing effort which already has produced widely disseminated marketing pieces, the web site was designed around the colors, slogans, and images of that campaign. This project will fit easily into existing publicity work.

Technology

The Career Connections web site was developed by Holland Systems. It is hosted on a Microsoft NT server at ACD.net Internet Services, an Internet Service Provider in East Lansing. The web serving platform is Internet Information Server (IIS) 3.0 with FrontPage 98 Extensions and Microsoft Active Server Pages (ASP). The database tables are stored in Microsoft SQL server 6.5, also hosted at ACD.net. At the offices of the Lansing Regional Chamber of Commerce, the database is maintained through an Microsoft Access interface which modifies the data tables on the remote SQL server at ACD.net via a 56K TCP/IP connection. Staff at the Chamber can also modify the web site using FrontPage 98.

Now in English for those who don t speak technical jargon. A database was designed by Holland Systems which stores information about career related opportunities.. The Chamber does not have the in-house expertise to run their own data and Internet servers, so the database physically resides on a server at the Chamber s Internet Service Provider, ACD.net. The Chamber has a dedicated 56K Internet connection between its offices and ACD.net. They also use

Microsoft Office and are therefore familiar with Access 2.0. Holland Systems designed an interface in Access which allows Chamber staff to maintain the data in the database and run special queries and reports about the use of the database. When Chamber staff use the Access application, it automatically updates the database stored at ACD.net over their 56K connection. Holland Systems also created a web site, also stored and served at ACD.net, which allows anyone with an Internet connection and a web browser to search the database. The web site also allows selected users to change and update their information in the database.

The powerful thing about this setup is that both the Chamber staff and the web users are accessing the same database by different means and with different levels of security. There is only one place where the information resides, so they avoid the problems and confusion related to duplicate copies and revisions which often occur in situations where many people need to provide input and share responsibility for the maintenance of a collection of information.

Design

The ultimate goal of the Career Connections web site is to facilitate real, face-to-face interactions in which students gain valuable insight into how to prepare themselves for the work force. Successful and meaningful career exploration activities require a mix of inputs from area businesses, school counselors, students, and parents, all of whom need to rely on accurate and timely information in order to make connections. The project team has carefully crafted the database and procedures around populating and using the database to maximize ease of use, ease of maintenance, integrity of the data, and setting into motion effective processes that lead to high quality experiences.

In order to post opportunities, businesses must be Chamber members or be approved to participate in the site. Each business posting information is provided a password which will allow it to modify its postings at any time over the web. All data entered by businesses also must be reviewed and approved by Chamber staff. At any time a posting can be removed from public access or a business can be inactivated and prevented from modifying their record.

Students, parents, and educators can search the database for relevant opportunities. Each user must identify his/her role (student, educator, parent, counselor, or guest), the school s/he is affiliated with, grade level, and search criteria. A user may optionally supply contact information and be placed on a mailing list. If a search yields matches, a user may access the business name, description, URL of the business web site, available opportunities and indexing related to the types of careers to which the opportunity is related. Because the actual opportunities must be arranged for the student through the schools, the contact information related to an opportunity is available only when a password is supplied. Passwords are distributed to

appropriate staff at all area schools. This ensures that students and parents can independently discover career exploration activities, but also that schools are kept in the loop as essential coordinators. Another feature of the database is that the indexing of the opportunities is identical to the career clusters and job titles used in the Michigan Occupational Information System (MOIS) used by career counselors and libraries statewide to help students define career goals. MOIS job descriptions are incorporated right into the result screens to help clarify and explain the relevance of opportunities. This integration also helps tie the tool in to familiar, existing resources.

Key Success Factors

- Strong committee structure with genuine interest and commitment to the project and consistent attendance.
- Supportive funding agency.
- Excellent vendor with skills in planning and documenting a system, in addition to programming it.
- Buy-in from the Chamber Board of Directors.
- A staff member whose job included designated time focussed on project content and management.

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Milford Community Information Network

Description

Milford Township Library has created the Milford Community Information Network (MCIN) which provides information by, for, and about community non-profit organizations. MCIN creates and hosts web sites for local non-profit organizations, maintains a comprehensive directory of links to locally relevant online information, provides free introductory training for the general public in Netscape and other Internet functions, and provides public access to MCIN and the rest of the Internet in the library. It can be found online at http://milford.lib.mi.us/mcin/comm.htm.

Partners and Participants

MCIN is a function of the Milford Township Library which sees the work of gathering and disseminating local community information via the Internet as simply a new medium for work they have done all along. Other entities are also publishing local information and each seems happy in their respective niche the Chamber of Commerce links to and hosts businesses and the schools operate their own servers and web presence.

MCIN currently has 22 participating agencies who are publishing pages on MCIN. They enter into a well structured relationship with MCIN in which they agree to stipulations set out in a Terms of Participation statement. In return for supplying timely information, MCIN will create and maintain a web site for a non-profit organization in their service area.

Staffing

MCIN is basically a one woman show. While governance decisions regarding MCIN are shared by library administrators and ultimately the Library Board, the MCIN Coordinator, Madelyn Ryan plans and performs the various daily functions. Her position is 20 hours/week and her duties include contacting and coordinating with the participating agencies to create and maintain web sites, maintaining the MCIN pages with links to other Milford-relevant sites, coordinating and delivering monthly training sessions for the general public, making presentations to interested groups, and publicizing the initiative. Ancillary duties include maintaining the youth page on the library s web site and a few hours of reference duty a week.

Financing

The initial funding for MCIN was provided by a 1996 Library Services and Construction Act grant. It was used to hire the half time coordinator, buy hardware, software, and telecommunications equipment, and develop and print promotional and training materials. Continuing funding for the coordinator position was absorbed by the library. Internet connectivity and web serving are also supported by the library as an integral part of their services. No fees are charged for access, training, or hosting provided by the project.

Training

As part of her duties as MCIN coordinator, Madelyn develops and delivers a continual schedule of Internet related workshops. Monthly introductory sessions are supplemented by topic oriented sessions like general searching, health, genealogy, travel, and job searching, as well as sessions for special audiences like kids and seniors. The schedule is available at http://milford.lib.mi.us/adult.htm#INET. These classes for the general public continually raise awareness and skills in the community, creating an audience for the information developed and mounted through MCIN in addition to fulfilling the personal information needs of the participants.

The organizations participating in MCIN by publishing their information online are trained informally by Madelyn according to their needs. Some provide her with information via fax, phone, or mailed newsletters, others provide electronic files on disk. One writes his own HTML and emails his updates as an attachment. Madelyn is willing to teach her providers HTML, but at this time her have not expressed the desire to take on that challenge.

Marketing

Traditional forms of marketing have worked well for MCIN. They have developed press releases which have garnered articles in the Oakland Press and Milford Times. They distribute bookmarks with the URLs of the library and the community network. MCIN also recently basked in national attention as the winner of a 1998 Best of Show award in the web site category of libraries of its size in the American Library Assocation's 1998 Public Relations Awards Competition.

To recruit the earliest participants, planners developed a list of likely candidates from their existing contacts in the community. These candidates were contacted and invited to an "electronic barn raising" at the library at which Professor Joan Durrance, a noted expert on community networking from the University of Michigan School of Information, spoke. Several signed up right away. Shortly thereafter, Madelyn created a slide show that she takes, along with printed PR materials, to local groups that request a presentation. Currently, after two years of success, the profile of the project is higher and word of mouth brings a number of organizations to the library requesting to participate.

Technology

Milford Township Library is a member of The Library Network and uses a dedicated 56K Internet connection and LAN to provide access to their catalog, networked CD-ROM databases, AccessMichigan databases, and the Internet. MCIN is served from an NT server housed in the library. The web server is O Reilly Software s WebSite Professional.

To create and maintain content, Madelyn uses Hot Dog, an HTML code editor by Sausage Software. Occasionally she will use HotMetal Pro, a graphical web page editor to visually lay out a page using

tables, but she prefers the control over the code which Hot Dog allows her. She also uses Photoshop to prepare graphics.
Participants are not allowed to access the server to mount or update sites. They can supply their sites on disk or email. For the most part, Madelyn herself makes the changes manually. So far, she says, this has been workable. Most of the time by far is involved in creating the initial site. But she is attempting to recruit a lot more participation, and if she is successful, she admits she may find herself buried. She is ready to cross that bridge when she comes to it.
MCIN is in the process of choosing software which will manage a community calendar and introduce the first interactive features of their site.

Design

The sites on MCIN are elegantly designed, using standard HTML, simple, attractive graphics and color, and readable layout. None of the sites use java, javascript, frames or feature interactivity, not so much out of a principled decision not to, but rather as a practical matter. Because she does the development and maintenance herself, Madelyn concentrates on designing an initial framework that is attractive and easily maintained and keeping the information current rather than teaching herself the latest tricks. The result is well organized, easily updateable, widely accessible pages. This approach works well for their modestly sized effort.

Key Success Factors

- A board of trustees and a director who all believe in and support the idea. Director Jill Morey is out in the community a great deal, and she serves as a very effective ambassador.
- The fact that it is actually Madelyn s job to develop the network, not just her sideline.
- An on-site server over which the project has complete authority and access.
- The fact that the Milford area has a very strong local identity. There is a great deal of involvement and interest in the community at many different levels. People like living in Milford and are proud of their small but dynamic, growing community.

Contact

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WebLinks

Description

This Internet project trained high school students in publishing community information on the Internet. The WebLinks team, 10 juniors at Flint Central High School, worked with local teen-oriented non-profit agencies to build World Wide Web sites for them. The goal of this project was to develop computer literate students who were knowledgeable of social agencies in the City of Flint and who were capable of contributing to the networking capabilities of these agencies and their constituents. The sites created can be viewed at http://www.flint.lib.mi.us/weblinks/.

Partners and Participants

WebLinks was a project planned and managed by the staff of the Flint Public Library. Counselors at Flint Central High School recommended students for the program. The Greater Flint Community Foundation provided funding.

Participants included 10 juniors from Flint Central High School deemed at risk by counselors. Each student participant was interviewed for membership on the team and was paid to participate in the training and the work as web site developers. Students worked in pairs. Each pair was assigned to an agency. A library staff person was assigned to each student/agency interaction, serving as a mentor for the students and a liaison with the agency.

Sixteen agencies volunteered to participate, dedicating a staff member s time to work with the students in providing information, giving input into the design, and approving the final product. Agencies were also provided with training opportunities to encourage them to take on maintenance of their site after working with the students.

The work was divided into three rounds. The same 10 students participated throughout the entire project, repeating the development process with 3 times, each time with a new agency. Each agency interaction lasted approximately two months.

Staffing

Primary responsibility for the project was undertaken by Cynthia Stilley, the Supervisor of Services to Children and Young Teens. Two staff librarians and the desktop publishing specialist also assisted with training, mentoring, and review of the sites. The Cybrarian, in charge of the training lab where the work took place and coordinator of other community networking outreach efforts, and her part-time assistant served in a technical and training support role.

The project was designed and had funding to hire a part time trainer and project manager, but it proved impossible to find a qualified candidate who was available in the afternoons after school and willing to work on a part time basis. This slowed down the initial timeline. Rather than jeopardize the outcomes, it was decided to move forward with existing staff.

Financing

The school-year-long project was financed by a grant from the Community Foundation of Greater Flint. Grant money was used primarily to pay the student participants and underwrite some costs associated with training and promotion of the project. The Flint Public Library provided considerable in-kind services of their staff, training lab, and web server for hosting the pages.

The project had a distinct ending at the end of the 1997 school year. Although the WebLinks program was not repeated the following year, the Flint Public Library continues to engage students in various online publishing experiences.

Training

The student participants were trained at the beginning of the project through group classes and hands on practice in basic Internet use, web page authoring, and graphics preparation. For many, this was their first exposure to using computers for more than casual entertainment. Through the mentoring in their agency interactions, students also observed and learned how to work with clients, worked on writing skills, and practiced making public presentations. One of the pairs even investigated what equipment would be necessary to start their own business.

Although not a formal part of the WebLinks project, training for the agencies occurred when they were referrered to various Internet and online publishing training opportunities sponsored by the library. This interaction and the contact with the library staff liaison ensured that there was a relationship between the agency and the library that continued after the WebLinks program finished.

Marketing

At the conclusion of each round with the agencies, a public unveiling of the web sites was held in the library s computer lab. Other agency staff, community leaders, and parents were invited. The students presented and explained their sites to a packed house. The students also presented the project to the Flint Board of Education and were featured on a local television news segment.

Technology

The training and creation of the sites took place in an Internet connected computer lab with PowerMacintosh computers and an overhead projection system. Each student had his or her own computer to work with. Each student also was provided with file space on the lab server for storing and sharing files. Staff were also part of the file sharing workgroup and had easy access to the various project files to facilitate reviewing and troubleshooting. A scanner and digital camera were also available for graphics creation.

The software used by the students was PageMill, a web page editor, and Photoshop, an image editor, both by Adobe Systems.

The Internet server platform was also a Macintosh. The web server software used was WebStar by Starnine. The students did not have

the ability to publish directly to the web. The WebLinks staff reviewed all the sites first and when cleared for publishing, they were copied by the system administrator onto the public server.

Design

WebLinks used a template for agency sites. It was a six page site with a home page, basic contact and staffing information, programs and services descriptions, events, ways to get involved, and lists of further resources available from the agency, the library and the Internet. Logos were either scanned or created by the students and color schemes were applied which individualized the designs. Using a template helped achieve several things. It helped in the first rounds when it would have been too overwhelming for beginning web designers to worry about the structure of a site as well as the informational content, all while mastering use of the computer, the HTML editor, and the Internet. It helped ensure a basic standard for content and organization for all the agencies, whether they were one of the first ones or the last ones. And it made certain technical uploading and maintenance tasks easier later, minimizing the need to alter file names and replace links.

Key Success Factors

- Dedication and willingness of the staff to put in the hours beyond what they had ever expected to ensure a successful experience for the students.
- Students working in teams minimized individual weaknesses and kept the work going forward.
- The use of a template allowed for some diversity but definitely provided a necessary framework on which to hang a tremendous amount of information.
- This project was very staff intensive but each team definitely needed a mentor who could be intimately involved in the decision making and technical execution of the sites.
- A healthy dose of ignorance, dumb luck, and blind faith!

Contact

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Resources

Organizations

Association For Community Networking
<http://bcn.boulder.co.us/afcn/index.html>
Benton Foundation <http://www.benton.org/>
Center for Civic Networking <http://www.civicnet.org>
Civic Practices Network <http://www.cpn.org/index.html>
Community Access Program (CAP) of Industry Canada
<http://cap.unb.ca/english.html>
Council on Library and Information Resources
<http://www.clir.org/home.html>
The Foundation Center <http://www.fdncenter.org/>
Organization for Community Networks <http://ofcn.org/>
Partnerships Online <http://www.partnerships.org.uk/>
Rural TeleCon: National Rural Telecommunications Conference
<http://ruraltelecon.org/>
Telecommunications and Information Infrastructure Assistance Program (TIIAP) of the: U.S. Department of Commerce, National Telecommunications and Information Administration , Office of Telecommunications and Information Applications
<http://www.ntia.doc.gov/otiahome/tiiap/index.html>
Telecommunities Canada <http://www.tc.ca/>
UK Communities Online <http://www.communities.org.uk/>

Other Toolkits

Best Practices Toolkit. Communications Policy and Practice. Washington DC: Benton Foundation. <http://www.benton.org/Practice/Toolkit/>.
KickStart Initiative. Washington DC: United States Advisory Council on the National Information Infrastructure and Benton Foundation. 1996.
<http://www.benton.org/Library/KickStart/>
Missouri Express Resource Guides. Columbia, MO: Missouri Research and Education Network, Missouri Express.
<http://outreach.missouri.edu/moexpress/index.html>
Nuts and Bolts: Practical Resources for CAP Sites. Lumby, BC, Canada: Lumby Community Internet Access.
<http://www.monashee.com/manual/index.html>
Running a CAP Site. Ontario, Canada: Community Access Program, Industry Canada, 1997. <http://cap.unb.ca/running/>.

Community Networking

Bajjaly, Stephen. The Community Networking Handbook. Washington, DC: ALA Editions, 1999.
Buildings, Books and Bytes: Libraries and Communities in the Digital Age. Washington DC: Benton Foundation, 1996.
<http://www.benton.org/Library/Kellogg/buildings.html>
Chapman, Gary and Lodis Rhodes. Nurturing Neighborhood Nets. Technology Review October 1997.
<http://www.techreview.com/articles/oct97/chapman.html>.
Cisler, Steve. Home Page. <http://home.inreach.com/cisler/index.html>.

Cohill, Andrew Michael and Andrea Lee Kavanaugh, eds. Community Networks: Lessons for Blacksburg, Virginia. Norwood, MA: Artech House, Inc. 1997.
Communications Policy and Practice. Washington DC: Benton Foundation. <http://www.benton.org/cpphome.html>.
Community Access Program Success Stories. Ontario, Canada: Community Access Program, Industry Canada, 1997. <http://cap.unb.ca/success/index.html>.
The Community Connector. Ann Arbor, MI: University of Michigan School of Information. <http://www.si.umich.edu/Community/>
Durrance, Joan C. Reinventing the Community Information Professional:Strategies and Approaches Used to Develop Community Networking Knowledge. 1996. <http://www.si.umich.edu/Community/aliseCN_paper/aliseCN.html>.
Durrance, Joan C. and Karen G. Schneider. Public Library Community Information Activities: Precursors of Community Networking Partnerships. 1996. <http://www.si.umich.edu/Community/taospaper.html>.
Goslee, Susan, et al. Losing Ground Bit by Bit: Low Income Communities in the Information Age. Washington DC: Benton Foundation, 1998. <http://www.benton.org/Library/Low-Income/>
Gregson, Kim. Community Networks: Bibliography and Resource Guide. Indiana University, School of Library and Information Science 1996, 1997. <http://php.ucs.indiana.edu/~kgregson/main_menu.html>
Knox, Sheryl Cormicle and Joan Durrance. Pulling Together: Technology, Community and the Public Library. 1997. <http://www.flint.lib.mi.us/gfcni/report/>.
Leech, Helen. Project CIRCE: Networking Community Information. 1998. <http://www.gloscc.gov.uk/circe/index.htm>.
Local Places, Global Connections: Libraries in the Digital Age. New York, NY, 1997: Libraries for the Future and Washington DC: Benton Foundation. <http://www.benton.org/Library/Libraries/>
Public Libraries, Communities, and Technology: Twelve Case Studies. Washington, D.C.: Council on Library Resources, 1996. <http://www.clir.org/programs/leadership/case.html>.
Schuler, Douglas. New Community Networks: Wired for Change. New York, NY: ACM Press 1996.
TIIAP s News from the Field. Washington DC: U.S. Department of Commerce, National Telecommunications and Information Administration , Office of Telecommunications and Information Applications, Telecommunications and Information Infrastructure Assistance Program. <http://www.ntia.doc.gov/otiahome/tiiap/Newsletter/T_news1.htm>
What s at Stake 2: Defining the Public Interest in the Digital Age. Washington DC: Benton Foundation, 1997. <http://www.benton.org/Library/WAS2/>
Wilcox, David, ed. How You Can Use IT in the Community. 1998. <http://www.partnerships.org.uk/pubs/how.html>.

Partnering

Kretzmann, John P. and John L. McKnight. Building Communities from the Inside Out: a Path Toward Finding and Mobilizing a Community s Assets. Evanston, IL: Center for Urban Affairs and Policy Research, Neighborhood Innovations Network, Northwestern University 1993.
London, Scott. Building Collaborative Communities. November 1995. <http://www.west.net/~insight/london/ppcc.htm>.
Mayor, Tracy. Tangled in Charlotte s Web: The Lessons of a Partnership Unmade. Civic.com August 1997. <http://www.fcw-civic.com/pubs/august/cover.htm>.
Moote, Anne. Partnership Handbook. Tucson, Arizona: Water Resources Research Center, College of Agriculture, The University of Arizona, August 1997. <http://ag.arizona.edu/partners/contents.html>.
Wilcox, David. The Guide to Effective Participation. 1994. <http://www.partnerships.org.uk/guide/Sum.html>.
Winer, Michael Barry and Karen Louise Ray. Collaboration Handbook : Creating, Sustaining, and Enjoying the Journey. St. Paul, MN: Amherst H. Wilder Foundation 1994.

Planning

See also: Other Toolkits

Barry, Bryan. Strategic Planning Workbook for Nonprofit Organizations, Revised and Updated. St. Paul, MN: Amherst H. Wilder Foundation 1997.
Benton Foundation trigger tape videos for mission, values, policy discussions. Washington DC: Benton Foundation. <http://www.benton.org/Videos/>
Community Network Planning Guide. Blacksburg, VA: Blacksbury Electronic Village. <http://www.bev.net/project/evupstart/planning.html>
Fuller, Mark A., ed. Facilitator Central. <http://hsb.baylor.edu/html/fuller/fac/>. Extensive listings of resources related to group facilitation and planning.
Gamse, Phillipa and Terry Grunwald. Seven Steps to Building Electronic Communities. <http://www.totalnetval.com/tnv/7-steps.htm>.
International Association for Public Involvement. Public Involvement Network. <http://www.pin.org/>. Extensive listings of resources related to nurturing public participation.
Mackie, Drew and David Wilcox. The Communities Online Game. <http://www.partnerships.org.uk/game/welcome.htm>.

Technology

See also: Other Toolkits

Managing Information in an Online Community. Blacksburg, Virginia: Blacksburg Electronic Village. <http://www.bev.net/project/technotes/Info.mgmt.html>
Ostrow, Stephen. Digitizing Historical Pictorial Collections for the Internet. Washington DC: Council on Library and Information Resources, 1998.
RLG DigiNews. Mountain View, CA: Research Library Group and Ithaca, NY: Cornell University Library, Department of Preservation and Conservation. <http://www.rlg.org/preserv/diginews/>

Schmidt, Kenneth William and Andrew Michael Cohill. Building an Online History Database. Community Networks: Lessons from Blacksburg, Virginia. Norwood, MA: Artech House, Inc. 1997.
Ward, Luke. Community Network Technology. Community Networks: Lessons from Blacksburg, Virginia. Norwood, MA: Artech House, Inc. 1997.

Funding

See also: Other Toolkits

Chronicle of Philanthropy. Washington DC: The Chronicle of Philanthropy. <http://philanthropy.com/>.
The Big Book of Library Grant Money 1998-99: Profiles of Private and Corporate Foundations & Direct Corporate Givers Receptive to Library Grant Proposals. Chicago, IL: American Library Association 1998.
Harrison, Bill J. Fundraising the Good, the Bad, and the Ugly (and How to Tell the Difference), 3rd ed. Mesa, AZ: Step by Step Development 1997.
Foundation Center Online New York, NY: The Foundation Center. <http://www.fdncenter.org/>.
Non-Profits, Charities, Fundraising, And Managing A Non-Profit Organization. Smart Business Supersite. <http://www.smartbiz.com/sbs/cats/nonp.htm>.
Philanthropy News Digest. The Foundation Center.<http://fdncenter.org/phil/philmain.html>.
web
Philanthropy Journal. <http://www.pj.org/>.
Ruskin, Karen B. and Charles Achilles. Grantwriting, Fundraising & Partnerships; Strategies That Work! Thousand Oaks, CA: Corwin Press 1995.
Sternberg, Sam. Business Funding for Free-Nets. August 1993. <http://www.ncf.carleton.ca/freenet/rootdir/menus/freenet/conferences/com-net93/papers/sam_sternberg.txt>
Technology Funding for Nonprofits. Best Practices Toolkit. Washington DC: Benton Foundation. <http://www.benton.org/Practice/Toolkit/techmoney.html>
Walter, Timothy. Foundation Resources and Community Networks, Telecenters and Televillages. Washington DC: Aspen Institute Rural Economic Policy Program, July 25, 1996. <http://www.aspeninst.org/rural/foundres.html>.