

# Using Technology To Enhance Delivery of Services

Trainer's Manual

Prepared for

**nebhands** *a faith-based and community initiative*

Funded by

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## Overview

Optimal Group size: 25 (5 small groups of 5)

Class Preparation:

Equipment and Supplies:

1. Computer with PowerPoint or equivalent program, LCD projector, screen
2. Whiteboard or flip chart with markers (optional)
3. Name tents for each participant
4. Small prizes for ice breaker activity (optional)
5. Copies of the Workshop manual, etc.

Curriculum Delivery Guidelines:

The workshop curriculum has been created specifically for grassroots faith-based and community organizations that are providing services with limited resources such as full-time staff, technology, and funding. The workshop is designed to give the participants:

- A working knowledge of technology terminology as it relates to service delivery
- An understanding of data management and collection
- An understanding of how they can use the Internet to help them
- An understanding of what a technology plan is, and the basic process of creating and using one
- A set of resources to give participants a direction for further research and learning.
- A working outline to take back to their work groups to apply to their real world programs.

These topics are beyond the scope of this curriculum:

- How to use any specific software programs.
- A completed technology plan.

We are also presuming that much of the grassroots organization's work is done and coordinated by volunteer committees. With this in mind, the curriculum relies on small group work. During each learning module, the Workshop Facilitator will integrate the small group work into a large group example. The consolidation of the small group work into a large group plan should be done through group consensus. One of the workshop objectives is to promote collective program planning. Some activities ask for stakeholder role-play to help participants look at planning from different perspectives.

This curriculum is designed to help the participants begin to understand the overwhelming number of options they have in using technology in their organization, and why they should begin using it. It is designed for people who have little previous knowledge of technology.

Example scenarios with need of resolution are given to help focus curriculum delivery. The workshop facilitator does have the option to develop their own examples or to ask the participants to create one.

The Workshop Manual has additional supporting information that will not be formally covered in the workshop. Each participant will receive a complete participants manual, which will cover much of the material reviewed during the training, as well as blank copies of the worksheets. They will also get a list of works cited in the presentation, as well as some additional suggested resources and useful articles.



Group Activity:  
Define these terms

- ISP
- WWW
- WYSIWYG
- RAM
- SQL
- CPU
- HTML
- DSL
- CD-RW

## I. Introductions/Ice breaker:

### Materials:

- Scratch paper for each group
  - Little prizes for the most correct or most “creative” answers
- A. Introduce yourself and describe your experience with technology and non-profits
  - B. Have each participant to briefly introduce themselves with their name, organization, organizational role, and what they hope to learn
  - C. Form small groups of 5 people, and show them the icebreaker terms. Have them go through each acronym, and write down what they think it stands for, and what it means. This is designed to be a fun activity, so encourage them to make up answers if they don't know, and offer prizes for the most creative answers, as well as the most correct answers. Have one group member record answers.
  - D. After 5 minutes, go through each acronym. Ask the groups to share their answers, and then show the answer on PowerPoint. Encourage the creative answers.



## Definitions

### Definitions

**ISP:** Internet Service Provider  
**WWW:** World Wide Web  
**WYSIWYG:** What You See Is What You Get  
**RAM:** Random Access Memory, very fast, but temporary, storage for information in the computer  
**SQL:** Structured Query Language, the standard language for accessing relational databases  
**CPU:** Central Processing Unit, the "brain" of the computer  
**HTML:** Hypertext Markup Language, creates web pages  
**DSL:** Digital Subscriber Line, a fast Internet connection  
**CD-RW:** Compact Disk-ReWriteable, CD's that can be used more than once

**ISP: Internet Service Provider**, a company you contract with for Internet service, such as Internet Nebraska or AOL

**WWW: World Wide Web** – the Internet

**WYSIWYG ("What You See Is What You Get"):** This term describes software that allows you to perform edits on a document that show you on screen exactly what will print out. Most word processing and desktop publishing programs now have this feature.

**RAM: Random access memory**, very fast, but temporary, storage for information in the computer. The more RAM you have, the faster your computer will run.

**SQL: Structured Query Language**, the standard language for accessing relational databases

**CPU: Central Processing Unit**, the "brain" of the computer that performs all of the calculations the computer needs to run. CPU speed is measured in megahertz or gigahertz, which is 1000 megahertz. The faster the CPU, the faster the computer.

**DSL: Digital Subscriber Line**, a fast Internet connection through telephone lines

**HTML: Hypertext markup language**, the language used for creating web pages

**CD-RW: Compact Disk-ReWriteable**, CD's that can be used more than once



### Why is technology important?

- Track essential information
- Making financial data tracking more efficient
- Documentation
- Consistency
- Outreach

## II. Why is technology important?

*Some questions to ask the group:*

How long would it take you to alphabetize a list of 400 people by last names?  
How long would it take you add a column of 100 three-digit numbers?

A computer could do that for you in less than one second. Of course, someone has to give the computer the information, but once that is done, you can do any of these tasks multiple times. What if you finished alphabetizing by last name, and were told they had to be by first name? The computer wouldn't care if it had to do it again, but you would!

Why is technology important to your work?

*You may also want to ask:* Why isn't technology important?

Technology has become essential to providing human services. Funders expect it to be used. Of course, focusing too much on technology will neglect the people receiving the services. Technology needs to be used to enhance services, not replace them.

The level of technology needed varies greatly from organization to organization. Today we will be talking about the basics that will make your work easier. As you learn more, you will be able to increase your technology usage.

Here are some examples of areas in which technology improves the delivery of services.<sup>1</sup>

- a) Track essential data accurately, easier, faster and more consistently  
Computers can count and tally information much quicker and more accurately than a person  
Data could be information such as financial, client demographics, or volunteer hours
- b) Creating reports quicker; new reporting needs can be quickly answered
- c) Outreach to clients, volunteers, donors and the community
- d) Assessing needs of clients and programs<sup>2</sup>

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<sup>1</sup> Community Food Security Evaluation Handbook. National Research Center, Inc., 2003

<sup>2</sup> Chang, Barbara. (March 29, 2002). Information Management: The cornerstone of nonprofit effectiveness. Retrieved November 10, 2003 from the TechSoup web site: <http://techsoup.org/howto/articlepage.cfm?ArticleId=369>.



- e) Staff knowledge; through access to and research on the World Wide Web, by subscribing to appropriate mailing lists, etc.
- f) Collaborations: via email, websites, fax machines, conference calling, video conferencing, intra-office networks that allow file/calendar/print sharing, wide area networks, etc.<sup>3</sup>

However, you must always keep in mind that the technology is not the end goal of your services. Technology is a tool to help you improve your services, provide services more efficiently, and collect data more accurately. It will support the organization's overall mission and goals, but by itself, technology can't feed someone or make them self-sufficient.<sup>4</sup>

Technology can become essential to your work, but then fail at the worst possible moment. For this and other reasons, it is important to consider how your organization would cope when some or all technology components are unavailable. For example, in addition to storing the mailing list in a database, the list would be printed periodically. Or, paper forms would always be available to do intake, just in case.

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<sup>3</sup> Teaming for Technology Burlington. (2002) Guide to Technology Planning. Retrieved November 14, 2003 from

<http://www.unitedwaycc.org/teamtech/techplanguide.htm>

<sup>4</sup> Podolsky, Joni. (2003) Wired for Good: Strategic Technology Planning for Nonprofits San Francisco: John Wiley & Sons, Inc. (US). Retrieved November 14, 2003 from netLibrary.com:

[http://www.netlibrary.com/ebook\\_info.asp?product\\_id=91882](http://www.netlibrary.com/ebook_info.asp?product_id=91882).



#### Ways Technology Can Be Used By Service Providers

- Data Management
  - Databases
  - Spreadsheets
- Internet
  - Grant research and applications
  - Finding best practices
  - On-line resource databases
- Communication
  - E-mail
  - Mailing lists/Discussion lists
  - Intra-organization networking

### III. Ways Technology Can Be Used By Service Providers

How can service providers use technology? There are hundreds of different ways that it can make the work easier and better, such as:

#### A. Data Management

Providing human services requires keeping track of a great deal of data on the participants. Funders expect to see outcomes, and the data needs to be there from the beginning to show improvement.

There are two types of programs for data tracking which will be discussed in more detail:

- (1) Databases and
- (2) Spreadsheets

#### B. Communication

Communication between staff members, clients, and funders is essential, and technology will make it simpler. Although technology can never replace the personal touch of a phone call, being able to use e-mail to communicate quickly to large numbers of people is a huge time and money saver.

Other ways technology improves communication is with sharing files between many staff, such as giving everyone access to the same database.

- 1) E-mail
- 2) Mailing lists/Discussion lists
- 3) Intra-organization networking

#### C. Internet

The Internet allows for a wealth of information to be shared between human service providers large and small all over the world. You can find information on what has worked and not worked for others and apply it to your own work.

You will also be able to find many funding referrals on-line, as well as resource databases to help clients find the resources they need.

- 1) Grant research and applications
- 2) Finding best practices
- 3) On-line resource databases



## Discussion

1. How are you using computers now in your organization?
2. How could you use computers more?

## IV. Small group activity

- A. Have the students get together in groups again.
- B. Make a list of how you already use computers in your organizations. Then, brainstorm how you could do more. Take 5 minutes to think about the possibilities.
- C. After 5-10 minutes have them come back together and compile a group list.
- D. Write the suggestions on a white board, or type them into Word on the projector screen. After they're finished with that list, start a new list in a different color or area. There will be duplication between the lists due to different levels of technology usage.

Break the lists down into the categories such as:

- a. Data management: spreadsheets, database, client information, fiscal
- b. Internet: grant research and applications, best practices research
- c. Communication: E-mail, mailing/discussion lists
- d. Other: Word processing, desktop publishing, appointment tracking, websites, etc.

*While you are doing this activity, look for some good examples that can be shared with the group. Have one or more of the participants give a general overview of their organization's current use of technology. You can then use these as examples as you go through the rest of the presentation.*

*This scenario is one you can use if you can't get one or more participants to share their story.*

**Scenario:** Ms. Eleanor is the part-time volunteer coordinator at the Good Faith Congregation. She implemented a basic distribution of canned goods using donated food and volunteers, which has met some of the need, but she found that many more needs are out there. She has now created a program that links families with behavioral health services and wants to track information about the families.

Ms. Eleanor created a great out-come based program and was able to secure a small grant to improve the technology of their organization to more efficiently serve their clients and to track the data to show their outcomes. Ms. Eleanor works on a Windows 2000 laptop that she brings from home. She knows the basics of word processing, the Internet, and some financial stuff on Quicken, but nothing about spreadsheets or databases. The part-time secretary works on a donated computer that has Windows 95.

Ms. Eleanor now needs to figure out where to start. With her previous knowledge, she has some idea of the possibilities, but she has many questions.



What is a database? What is a spreadsheet? Why does she need to computerize her information? Will that really save her time in the future? What good does Internet access do her? Why does it matter if the secretary has it? What is a technology plan? What does she need to know to start one?

### Data Management

- What data is needed?
  - Financial
  - Participant demographics
  - Outcome data
  - Project planning information
  - Other grant requirements
- How to track information?
  - Databases
  - Spreadsheets

## V. Data Management

Let's start by talking about the data that you need to track, and then we can talk about how to track it.

### A. What data is needed?

Many different kinds of data can be tracked on a computer, allowing you to easily compile information for many purposes.<sup>5</sup> Some examples are:

- Financial
- Participant demographics
- Outcome data
- Project planning information
- Other grant requirements

## VI. Data considerations

A. What data do you need? -- Do you have requirements from your funder? Plans for future funding requests that will require data?

B. How much data will you collect?

C. Will you collect 100 pieces of data about 10 people, or 10 pieces of data about 1000 people? Keeping track of 10 people is much easier than tracking 100, and requires a lot less technology.

D. What will you do with the data? (reports, mailing labels, etc?)

E. Try to anticipate future needs --Remember to plan for additional clients, and additional information, so that you don't constantly need to find another data tracking solution as your program grows.

*Collect some examples from the participants of their current data collection and storage methods, and the things they see as needs.*

<sup>5</sup> Chang, Barbara. (March 29, 2002). Information Management: The cornerstone of nonprofit effectiveness. Retrieved November 10, 2003 from the TechSoup web site:

<http://techsoup.org/howto/articlepage.cfm?ArticleId=369>



## Spreadsheets

- A program for working with financial and other numerical data
- Budgets
- Actual income and expenses
- Basic data tracking (simple mailing lists)
- Examples: Microsoft Excel, Corel QuattroPro, Open Office Calc

## VII. Spreadsheets

Spreadsheets can be used in many ways in any organization. At their simplest, they are a program for working with financial and other numerical data. They might be used to create a proposed program budget, or to track income and expenses.

They can also be used for any type of data that needs sorting or the table format, such as a mailing list, attendance chart, list of donations or a weekly schedule.

Spreadsheet programs can sort data quickly, such as list of last names. They can also easily add up a column of numbers or perform many other mathematical calculations. Of course, they require some time at the beginning to enter the data and set up the formulas, but once it is there, you will save a lot of time in the long run.

Some examples of spreadsheet programs include: Microsoft Excel, Corel QuattroPro, and Open Office Calc, but there are many others available.

## Sample Spreadsheet

	January	February	March	April	May	June
Rent	\$380	\$380	\$380	\$380	\$400	\$400
Gas	\$75	\$75	\$70	\$45	\$30	\$20
Electric	\$35	\$35	\$35	\$45	\$55	\$65
Water	\$20	\$20	\$20	\$20	\$35	\$45
Car Insurance	\$52	\$52	\$52	\$52	\$52	\$68
Car Payments	\$223	\$223	\$223	\$223	\$223	\$223
Food	\$380	\$380	\$389	\$350	\$381	\$344
Entertainment	\$35	\$35	\$45	\$50	\$45	\$45
<b>Total Expenses</b>	<b>\$1,200</b>	<b>\$1,200</b>	<b>\$1,214</b>	<b>\$1,165</b>	<b>\$1,221</b>	<b>\$1,230</b>
<b>Income</b>	<b>\$1,264</b>	<b>\$1,325</b>	<b>\$1,052</b>	<b>\$1,152</b>	<b>\$1,459</b>	<b>\$1,198</b>
<b>Difference</b>	<b>\$64</b>	<b>\$125</b>	<b>-\$162</b>	<b>-\$113</b>	<b>\$238</b>	<b>-\$34</b>

## VIII. Sample Spreadsheet

This is a good example of a simple spreadsheet for a household budget. The person can enter the month names, categories, and amounts per category, and then the program figures out the totals and difference amounts. Averages would also be easy to calculate. You can see how this could easily translate into an organization or project budget.

Spreadsheets are easy to use for “what if?” scenarios. Once you’ve set up the basic layout of your worksheet, you can easily change numbers to try out different possibilities, and the computer will change the totals and averages quickly and accurately. For instance, if you get an extra \$500 in funding, you can easily see where you need to put that money.

Spreadsheet programs will also make charts for you very quickly, to give a visual representation of the data.



## Databases

- A program for tracking and manipulating data
- Can easily sort data, or extract data based on certain criteria
- Examples of software available: ebase, Microsoft Access, FileMaker Pro

## IX. Databases

A database is the next step beyond spreadsheets. It allows for a lot more data manipulation, such as searching, or omitting certain data. The most important feature is the ability to have relationships among various tables of data, meaning data doesn't have to be repeated multiple times because relationships can be created between existing data.

For instance, a list of names and addresses can be stored in one location, and the related list of services can be stored in another. Each list of data can easily be expanded without worrying about duplicating or space issues.

Once the data has been entered it is easy to answer a wide range of questions about the data without manual recounting each time. For instance, you could know: "How many people who live in the city of Lincoln have received food boxes more than once this year?" or "What are the names of the people who have increased their income by 20% or more in the past 12 months?"

If office computers are networked, more than one person can use a database at the same time, which isn't possible with a spreadsheet or even paper files.

Many different database programs exist. Microsoft Access is part of the professional version of Microsoft Office; so it might be a place to start if you already have it. FileMaker Pro is another often-used database program to consider.

If you would like to use a database, and don't currently have any software, try ebase first. It was developed specifically for the non-profit community and is a free product available on the Internet. (See resources)

## X. Database Examples

To help you better understand what a database is, and what it can do, here are two common examples.

A. Library catalog – Every time you look up a book at the library, you are using a database. The database contains information about each book in the library, including the title, author, publication date, publisher and subject.

This makes it easy to perform searches such as these:

- a. Enter in search terms such as author name or book title
- b. See list of potential matches with detailed information
- c. See similar listings to a particular book

## Database Examples

- Library catalog
  - Enter in criteria such as author name or book title
  - See list of potential matches with detailed information
  - See similar listings to book chosen
- Human Services
  - Specify the need
  - Narrow down by geographic area
  - Explore specific listings in greater detail for more information



- B. Local human service providers – A database of agencies in the community that provide various services can be extremely useful as clients are looking for help with various needs that your organization doesn't provide.
  - a. A caseworker could quickly bring up a list of food resources by city, complete with income guidelines and hours of operation.

## XI. Designing a database

- A. Interview staff at many levels to determine needs
- B. Look at existing forms
- C. Look at current data collected and any systems that are already in place<sup>6</sup>
- D. Determine type of data needed. Some possibilities are:
  - a. Donors—track gifts, dates, request dates
  - b. Clients—demographics, services received
  - c. Volunteers—dates of involvement, interests
  - d. Information and Referral—local resources

## XII. Database Example

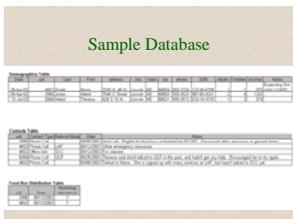
- A. This example of a database gives an idea of the types of data that can be stored in a relational database. This is a database to track a food box distribution and referral program.
 

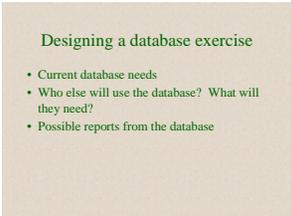
*(This comes from the Ms. Eleanor example, but they don't need those details.)*

This database has three different tables with demographics, referrals, and food box distribution.

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<sup>6</sup> Petersen, John V. (2002) [Absolute Beginner's Guide to Databases](http://www.netlibrary.com/ebook_info.asp?product_id=81309). Indianapolis, Ind. Que. Retrieved November 14, 2003 from NetLibrary.com: [http://www.netlibrary.com/ebook\\_info.asp?product\\_id=81309](http://www.netlibrary.com/ebook_info.asp?product_id=81309).





### XIII. Database report example

A. From this database, we can make some reports. This one is a detailed report on a particular participant, showing their activity in the program.

### XIV. Group Activity: Designing a database

Have each group begin mapping out their database. They can all use one scenario or they can use different ones in each group. The group needs some general information about the current programs and future plans. If there are no good examples, then use:

Ms. Eleanor’s food box distribution needs to set up a database to track their participants. They sit down and review what information they have and what they need. A congregation member has talked with Ms. Eleanor about providing some money to support the food boxes, but he wants to know how the workshops she has been holding has made an impact. She knows that she can’t give him any data yet, but she looks at the information she has from the outcomes workshop and begins thinking about what she needs to track in order to answer his questions.

She also thinks about who will use her database besides herself. The secretary will need to make mailing labels. The minister wants to see what attendance is like, and so forth.

### Group Activity: Designing a database

What data does your organization need currently?

Data needed	Examples of this data	How data is collected
Program start date	04/23/04	Intake form
Last Name	Smith	Intake form
First Name	John	Intake form

What are some examples reports that could be generated from this data?  
(I.e. mailing labels, clients by service received, etc.)

Uses of the Internet:  
Research

- Using search engines (Google, Yahoo, etc.)
- Foundation Center (fdncenter.org) – Comprehensive directory of grants.
- TechSoup.Org – Technology place for non-profits
- Etc.

## XV. Uses of the Internet

Having access to the Internet lets you explore a wealth of information for service delivery and funding.

### A. Research

Searching for funding and information is one option. You can use all of these different options to find grants.

- a. Search engines (Google, Yahoo, etc.) Type in “technology grant” or “faith-based funding” and you’ll see many links to information you can use.
- b. Foundation Center (fdncenter.org) – Comprehensive directory of grants.
- c. NTEN.org and TechSoup.Org are great sites for finding technology information for non-profits.
- d. And many more...there is no one way to search the Internet for information.

*Ask the workshop participants if they have had any experience searching for grants on the Internet, and what their results have been, or share your own experiences.*

## XVI. Uses of the Internet: Grant Applications and Reporting

Many organizations are asking for on-line applications and reporting. You need to be comfortable with the Internet to compete with others. You can also use the Internet to communicate with your funders, which often results in faster replies.

## XVII. Uses of the Internet: Accessing on-line databases of community resources for client referrals

Many communities have databases on the Internet to help you find resources for clients. One example is the WorkResources.Org website that gives people in Lincoln and Lancaster counties help in finding the resources that they need to get and keep a job. You can also use the Internet to find a wealth of articles that may help clients. As we discussed in the database section, you may need to create your own database for information and referral if the one you need doesn’t exist yet.

Uses of the Internet:  
Grant Applications and Reporting

- Many grant-making organizations require on-line grant applications
- On-line reporting is often required
- Use Internet to communicate with funders

Internet:  
Information and Referrals

- On-line databases of local and national resources
- Articles, how-to worksheets, etc.



### Communication

- E-mail (both internal and external)
- Mailing lists (for communicating with others in your field)
- In-house networking for sharing files

## XVIII. Communication

A. E-mail allows quick, easy, low-cost communication with co-workers, donors, funders, and community. For instance, you can send one e-mail to 50 people telling them about an upcoming event. No need to find a volunteer to stuff envelopes. Obviously, the level of e-mail you can use will vary depending on your audience, but using it whenever possible will lessen your workload significantly. It's also an easy way to share information among co-workers.

B. E-mail based mailing lists allow communication and information sharing with others. It's a great way to find out about upcoming funding opportunities, learn about great new ideas, and share your own expertise.

C. In-house networking for sharing files -- Having all of the computers in the office connected to each other allows all of the computers to share files, such as a database. If a database is only available on one computer, it makes it a chore for each person to get access to that machine to enter data. Setting up a computer network also allows users to share the Internet connection.

### Multilingual Projects

- Computers are not yet able to translate
- Can type in a variety of languages
- As with interpreting, translators of written materials must be culturally sensitive
- Many multilingual resource web sites available

## XIX. Multilingual Projects

A. Computers allow communication in many different languages, but it isn't as simple yet as pushing a button and having your words translated into whatever language you need.

B. However, you can now type in many different languages.

C. You must keep in mind that translators (of written materials) must be culturally sensitive, as well as linguistically competent. A Spanish speaker from Spain may not understand issues faced by a Spanish speaker from Mexico.

D. Web sites are starting to offer a variety of languages. For instance, the Social Security Administration provides basic information in many languages.



#### Additional options with technology

- Word processing
- Creating newsletters
- Tracking appointments
- Desktop Publishing
- Financial software
- Creating a web site
- Open source software

## XX. Additional possibilities with technology

There are many other ways you can use technology as your services expand and grow. Here are some other common uses for you to think about:

- Word processing -- Word processing is simply using a program such as Microsoft Word or WordPerfect to enter, edit and format text.
- Tracking appointments – Many different calendar programs allow you to track appointments.
- Desktop Publishing – Desktop publishing is producing professional-looking documents such as newsletters, business cards, flyers and calendars on a desktop computer. Microsoft Publisher is one example program, although a word processor can perform the same function with a little extra effort.
- Financial software – A spreadsheet program will help you get started in tracking financial information, but you may need to use a more powerful program later on. There are numerous programs available. One of the most commonly used by nonprofits is Intuit's QuickBooks. QuickBooks lets you print checks, generate bills, and create customized invoices, in addition to tracking ledger information.
- Creating a web site -- As your services grow, you may wish to create a web site to promote your services to potential clientele and funders.
- Open source software -- Not all software has to cost a lot of money. There are many software programs that are freely available and are of a high quality. OpenOffice is a word processor and spreadsheet program that is very comparable to Microsoft Word and Excel. Ebase is a freely available database for non-profits.

#### Other Issues for Technology Use

- Technology support staff/volunteers
- Training
  - Mentoring
  - Trainers
  - On-line
  - CD-ROMs
  - Books
- Recovery/Backups
- Security

## XX. Other Issues for Technology Use

As you begin to implement usage of technology, here are some other things you will need to keep in mind:

- Technology support staff/volunteers
  - With any technology usage, keep in mind how you will fix problems. If your hard drive dies, who will you call?
  - Will you train a staff member to help with small computer problems, and find a consultant (paid or un-paid) to do the rest?



## B. Training

The Internet will also provide you with a wide variety of options for training staff on technology. There are a variety of strategies that can be used. Start with surveying your staff. What do they already know, and what are they interested in learning? Do they know enough about spreadsheets to help other staff one-on-one, or to lead a class?

At the same time, find out how the staff would prefer to learn the material, and try to offer that type of training. Perhaps some staff would prefer to learn from a book, while others would prefer a classroom setting. Once some staff are comfortable, they may be able to mentor others, as long as it doesn't become a huge part of their day.

- i. Mentoring—Have one more knowledgeable staff member help others learn.
- ii. Trainers—Bring in an outside trainer, or send staff off-site for training
- iii. On-line—There are a lot of training materials on-line that let staff learn at their own pace
- iv. CD-ROMs—Reasonably priced CD-ROM tutorials can be also purchased. The tutorials walk the user through a particular software program by showing them how to do various tasks and then letting them do that.
- v. Books—Many computer books are available on a wide range of topics, and are good to have as references.

## C. Recovery/Backups

Once technology becomes a part of your work, you need to have a plan in place to protect the important data. It is easy to delete a file, and hard drives don't last forever. Always keep important data in two places, such as on a hard drive and on a floppy disk or CD-ROM. Print the data occasionally as well, so that it could be quickly re-entered if necessary. Having a system in place will mean you won't lose large amounts of time to technology failures.

## D. Security

All computer systems need some basic security procedures in place. Initially some anti-virus software is essential that will protect against viruses from the Internet, disks or e-mail. If the computers are connected through a high-speed Internet connection, use something called a "firewall" to protect them.



### Technology Planning

- What is a technology plan?
- Why create a technology plan?
- How is one created?
- What are the parts of the plan?
- How is it implemented?

## Technology Planning

*Ask the participants to share their experiences using technology in their agency. What has been successful, what hasn't been?*

*If no good examples are forthcoming, this one can be used:*

A women's shelter had five staff, and three working computers.

They had two other old computers and one working printer. The only connection to the Internet shared the phone line with the fax machine, impeding the usefulness of both. The computers had been purchased or donated over the years, and now the organization wanted to network the computers together and connect to the Internet. They were also pressured by the need to be compatible with a new city-wide database system.

The shelter got help writing a successful grant application to get technology assistance, and was ready to upgrade their system, but didn't know where to start. They needed a technology plan.

a. What is a technology plan?

A technology plan looks at all aspects of technology and their use or potential use in an organization. It creates a roadmap for future technology purchases based on:

- The needs and wants of the organization and staff
- The overall goals and mission
- Projected funding
- Technical knowledge of staff<sup>7</sup>

### Why create a technology plan?

- Save staff time and frustration
- Save money by buying less and fixing less technology
- Know what you need to request in grant applications

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<sup>7</sup> Podolsky, Joni. (2003) Wired for Good: Strategic Technology Planning for Nonprofits San Francisco: John Wiley & Sons, Inc. (US). Retrieved November 14, 2003 from netLibrary.com: [http://www.netlibrary.com/ebook\\_info.asp?product\\_id=91882](http://www.netlibrary.com/ebook_info.asp?product_id=91882).



## Why create a technology plan?

Organizations have a tendency to start using technology in a haphazard fashion. One computer is bought, another is donated, another component is bought because someone needs a certain functionality, etc.

Eventually, the organization winds up with a mix of software and hardware, and no one with the expertise to keep it all working together. Worse, the lack of planning means the technology is creating more work for staff, with no useful outcomes.

If the solution is to simply buy the best computer the organization can afford, money will be wasted on unneeded functionality. Instead, the organization has to sit down and really look at their entire organizational plan and decide how technology can help them achieve their goals.

Example: The women's shelter had equipment, and they suspected they didn't need to buy all new computers, but they really didn't know. Could they network the computers together or were they too out of date? What hardware did they need to buy? How could they create the best grouping of technology that would mean the least amount of future costs in upgrades and technical support down the road?



#### How is a tech plan created?

- Small committee with members from all parts of the organization
- Begin with overall mission and goals of organization
- Assess current technology
- Plan for the future

## How is a technology plan created?

Many guides are available on-line to create a technology plan.

Start with a small committee and review your existing technology. Survey staff to find out their needs, frustrations and hopes for technology. Find out what training staff need. Create a comprehensive picture of the technology status of your organization.

Do as much of your own work as possible before bringing in a costly “expert”.

However, recognize that someone who has a lot of experience will be able to save you money in the long run by implementing cost-effective solutions.

For example, the women’s shelter had already prioritized Internet access, networking, compliance with the citywide database and a backup system as their goals. They had a basic idea of the hardware and software they needed. When an outside consultant came in, they only had to pay that person to help with the technical details, which is a significant cost savings

It is critical for all new implementations of technology to include everyone in the decision making process. Just dumping a new program on staff with out letting them give input will result in frustration and anger.<sup>8</sup>

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<sup>8</sup> Doll, W. and Deng, X. (Spring 2001). The Collaborative Use of Information Technology: End-User Participation and System Success. *Information Resource Management Journal*, Volume 14, Number 2 (pp. 6-16).



#### Technology Plans: Final Steps

- Create a written document detailing the current technology use, goals, an action plan, and a budget
- Begin implementing the plan as soon as possible
- Review and revise the plan as necessary

## Final Steps

The most important sections need in the plan:

- o Current Technology: A brief description of how technology is currently being used in your organization.
- o Goals: The goals your plan addresses.
- o Action Plans with: Costs, Dates, Responsibilities: Outlines of how you intend to accomplish and fund each goal.
- o Budget: The estimated costs and funding sources for your goals

How is a technology plan implemented?

Once the plan is in place, begin putting its steps into place. As with any plan, make sure it is kept up to date and referred to regularly. There is never an end to updating technology, as the tools and organizational goals will continue to change over time.

Keep your technology consultant up-to-date on your changes so that they will be familiar with your system whenever you need them.

Example: The shelter staff learned from their consultant that their three computers would be adequate for what they needed. Based on the goals they had already established, the consultant gave them a list of suggested equipment and costs. They prioritized the networking and fast Internet connection and set a deadline for that to be implemented. Another non-profit helped them with setting up the network for a reduced fee. The staff know that they need more computers, so each staff member could have their own, but they felt that it was better to have three well-functioning systems first, and then add to the network later on. They had to trade-off their needs and wants to make best use of their available funding.





## XXI. Group project: Beginning stages of technology planning

This worksheet is designed to get the participants thinking about technology, its use in their organization and their future plans. After everything they have learned today, it should take them to a higher level of thinking than their first group exercise.

Choose one group example, or have each small group use one organization as an example, and go through the steps of the worksheet.

After completing the worksheets, go through and discuss them.

## XXI. Group project: Beginning stages of technology planning

Write down your agency's mission statement [or a short statement of your overall goals]
With that mission in mind answer the following:
<b>1.</b> How can technology improve the services we want to provide to our clients?
<b>2.</b> What long-term needs are we trying to address through updating technology?
<b>3.</b> What skills will our staff need to possess to be successful?
<b>4.</b> How do we envision services of the future?



Review and  
Further Information

- Review of what you learned today
- Further materials and information

## XXII. Review

### A. Summary of today's training

We've covered a great deal of information in today's training. You have learned a lot about each of these topics:

- i. Data Management
- ii. Communication
- iii. Internet
- iv. Technology Planning

As you can guess, this is only a beginning. Your next step is to begin researching your own use of technology and then planning for the future. A number of articles are included for you to read through, as well as a list of web sites to visit. There is no method that can be applied for every organization. Each of you will be starting at a different place.

## XXIII. Further learning

See the appendix of the Participant's Manual

*If there is time, go through the manual with the participants and offer suggestions.*

