Northside Coalition for Fair Housing (NCFH)
Student Consultant, Jennifer Louie
Community Partner, Billie Terry

Part I: Consulting Situation

A. The Organization
In 1998, the Housing and Urban Development (HUD) and Northside Associates (the owner of the Northside Properties) where unable to come to an agreement about terms for renewing the project-based Section 8-rental subsidy contract for a 332 unit scattered site housing development located in the Northside area of Pittsburgh. Northside Associates decided not to renew the contract and to evict the residents of the properties. In response to this, the residents of the Northside Properties formed the Northside Coalition for Fair Housing (NCFH) with the mission *to engage in activities that ensure and improve the availability and accessibility of low-income housing in the Northside communities.*   The NCFH saved their housing. They have along with many others, local, state and federal elected officials and the Urban Redevelopment Authority of Pittsburgh supporting them in their mission to acquire, redevelop and manage the Northside Properties.

The NCFH at the beginning of the partnership was located in the Northside Common Ministries building at1601 Brighton Road. This building also houses other organizations that serve low-income residents living on the Northside, including providing healthcare, shelter for the homeless and a food pantry. The NCFH was run out of a single cubicle on the second floor of the building. The NCFH has recently moved to 1821 Brighton Road where the organization has the complete use of the two-floor building including the use of the building's basement.

The NCFH is the resident council for residents living in the 300+ united scattered HUD assisted housing in the Northside section of Pittsburgh. These properties are located in the neighborhoods of California-Kirkbride, Central Northside, Charles Street Valley, and Perry Hilltop.

Programs offered by the NCFH are focused on the preservation of safe and affordable housing and empowering the residents of the served communities. The organization holds workshops on topics including education, budgeting, financial literacy, and government policy. The NCFH is also affiliated with many organizations, some of which are Regional Housing Legal Services, Local Initiative Support Corp., Fannie Mae, Tickets for Kids, and Northside Common Ministries, McAuley Institute, Pittsburgh Partnership for Neighborhood Development, Northside Leadership Conference, HUD – Pittsburgh, Central Northside Neighborhood Council, Allegheny Universalist Unitarian church, Action Housing to name some.

The NCFH works with the Fannie Mae Foundation, McAuley Institute, the Urban League Inc. of Pittsburgh and other affiliated organizations to promote home ownership and to provide educational opportunities for their membership. One example is Tickets for Kids, which donates tickets to events such as plays: the NCFH receives tickets from them and arranges transportation to the event so that interested, involved members and their families have an opportunity to participate members must arrive at the event as a group. Another example is sponsoring classes on home ownership with the Urban League of Pittsburgh facilitating them.

NCFH is a resident-driven organization that relies on a dedicated and hardworking group of volunteers; the NCFH has a 15 member Board of Directors that runs the organization. Some members of the

volunteer staff are two co-chairpersons, a treasurer, and many members of the board of directors and the Advisory Board. The organization also has one part time employee who works 8 hours a week.

Billie Terry, M.S. manages the business operations of the NCFH, and is a member of the Advisory Board. She has been with the NCFH since its beginning stages.

B. Technology Situation
The NCFH's technology in the office included:

➢ one three year old NEC desktop with:
  - a CD-ROM drive
  - a 100MB external Zip drive
  - Windows 98
  - Microsoft Office
  - software to obtain credit reports
  - QuickBooks Pro
	➢ Dialup Internet connection with Earthlink as the Internet Service Provider
	➢ Ms. Terry's personal laptop
	  - that runs Windows 98
	  - uses CompuServe as its Internet Service Provider
	➢ A fax/printer/copier machine

The staff all has access to the office computer and they use it to maintain communications with members, volunteers, and other partners. Creating program reports, writing reports, making logos, creating proposals, making invoices, and managing financial affairs of the NCFH are also done on the computer. The NCFH primarily uses their technology for email, word processing, and Internet. The external Zip Drive is used to back up the computer's files onto Zip disks.

Ms. Terry brings her personal laptop to the office occasionally for anyone to use when it is needed. It is also used when she takes work home with her. Ms. Terry uses her own desktop pc at home for NCFH business when needed, as do some of the other board members.

Currently, there is no designated person who is in charge of the office technology. When there are software issues with the credit bureau software, they receive technical support from a representative of the credit bureau. In regards to hardware, when purchasing, Ms. Terry asks salespeople in the store she purchases it from for their advice on what she needs, as well as garners advice from other NCFH members, and she relies on warranties on the hardware. The organization is currently in the process of purchasing two new Dell computers and setting up donated computers for use in their new office building. They plan to set up a computer cluster with the donated computers for the use of their members. These actions, based on Strategic Communications for Nonprofits' Technology Literacy Benchmarks for Nonprofit Organizations, show that the NCFH is making much headway in accomplishing the benchmark "all staff members should have desktop access to the Internet resources they need to do their jobs effectively".

C. Problems & Opportunities
Billie Terry volunteers for the NCFH as the office business manager. She is also a member of the advisory board. She was primarily in charge of taking care of the lease for the new building. Her responsibilities also include creating program reports and issuing notices to members, volunteers, and partners. Her computer use is mainly for email, word processing, Internet, and research.

The NCFH's current problems and opportunities are:
1. Expanding Ms. Terry's technical knowledge, skills, and confidence (as a computer and Internet user).
2. Plan a computer cluster for resident members to use.
3. Develop user and management policies so that multiple people without problems can use the single desktop computer.

4. Develop a NCFH web presence

Ms. Terry had the vision of providing a dynamic technical environment to the members of the NCFH. She wanted to use technology to promote the work of the organization and recognized that in order to accomplish this; she needed greater knowledge, confidence, and skill in technology, as she is one of the driving forces of as well as one of the people who have management responsibilities for the NCFH.

With the move to the new office building, the NCFH has gained a lot of space where resources such as computers that have been donated can be set up as a cluster for the use of its resident members. This would allow members who do not have easy access to the Internet, email, and a computer in general to take advantage of the organizations technical resources. The vision is to provide resident members with opportunities that they do not have without a computer (i.e., use of email as an efficient means of communication).

A common issue that arises when multiple people use a computer is that files are stored in different places based on any one individual's preference. Developing user and management policies for multiple users on a single computer can prevent the following:
- Since one may not know what the file name of a file one is looking for, the person may have to open up each file individually to see if it is the file wanted. This is very time consuming and inefficient.
- Files have been "lost;" nobody except the person that created them knows where they are stored.
- It is impossible to see what files are useful and which are not without opening them.
- A document considered important to one user may seem insignificant to another and deleted.
- Many files are saved on the C drive and not within any folders. Some are stored in the My Documents folder. Others are stored randomly in other places. There is no constant order.
- A lot of time is lost in looking for files in the computer.
- Nobody knows if a document already exists and may make duplicate documents for the same purpose.
- The lack of organization and difficulty in locating files has caused much frustration for everyone who uses the computer.

If one goes on the Internet and do a search for the NCFH, they would see links to sites of organizations that it has collaborated with in the past. However, there will be no link to a NCFH website. The online presence of the NCFH is determined and controlled by organizations that mention the NCFH on their web pages without any input from the NCFH. The following problems can be solved by developing a web site:
- It is difficult for people to find out about the organization - what they do, what services they provide, what products they have, how to contact them, recent news, how it can help them obtain safe and affordable housing, why people should become involved with the organization.
- Currently, the Northside Coalition for Fair Housing has moved to a new location. They need new things such as office furniture and computers which they would like to have donated to them. Without a web page, it is harder for the people they ask for donations from to find information about them, their status as a non-profit, what they offer the community, etc. to help aid in the process of deciding whether to donate to the Coalition.
- The Coalition has access to the Internet and an email account. Without a website, people may not know that it is possible to reach the Northside Coalition for Fair Housing even if nobody picks up the phone.
- People can only find out about the Coalition from the organizations that it is affiliated with. With a website, more people can find out about it independent of whether or not they have contact with any of the Coalition's affiliate groups.

D. Consulting Partnership's Focus
The consulting partnership focused on:
1. Develop a NCFH web presence
2. Expanding Ms. Terry's technical knowledge, skills, and confidence.

1. Develop a NCFH web presence
Developing a website was chosen to be part of the scope of work since it was clearly something that the organization needed and the community partner was motivated to work on it. The process consulting method was used in the partnership to develop the website since the issue of sustainability was taken into account. During the creation of the web site, Ms. Terry was in the driver's seat, she made the index page, she inserted text into the web site, she decided the content of the website, she decided what to update, etc. The consultant was only there to answer any questions Ms. Terry had about the process of creating the web site. The NCFH website was developed by going through the following steps:
1. Choose a web page editing software program that Ms. Terry felt comfortable using
2. Inserting images
3. Inserting and modifying text
4. Inserting hyperlinks
5. Saving Microsoft Word documents as web pages
6. Registering a domain name (http://www.ncfh.net) with Domain Direct
7. Choosing a web host (http://www.brinkster.com)
8. Changing and updating web page

By working with web page editing software, Ms. Terry will have the opportunity to create web pages independently and the ability to help others in the organization do the same. The result is a NCFH web page that the organization as a whole will have input on and one that can be maintained and updated by the staff even after the consultant and community partner partnership ends.

The expected results of this focus in the consulting partnership were:
- A CP with the ability to update and maintain a website.
- A resource to make it easier for one to find out about the organization.
- A web presence that the organization controls.
- An informative and easy to navigate website.

2. Expanding Ms. Terry's technical knowledge, skills, and confidence.
Another goal of the partnership was to expand Ms. Terry's technical knowledge, skills, and confidence. To accomplish this goal, the issue of file organization on the computer was focused on. The goal of setting up user and management policies to eliminate problems resulting from multiple users on a computer could not be accomplished due to time constraints. However, some of the problems could be eliminated (for Ms. Terry) if Ms. Terry was able to locate files and see if a certain files already exist is with the Windows search function, as well as understand the concept of computer files and folders.

While the task of organizing all the files on the existing computer into folders is a huge task, the increased knowledge of files and folders may help in better organization of files in future computers the NCFH may purchase in the future. Also by utilizing the search function of Windows, it will be less likely that files will become "lost" on the computer reducing the need to recreate hard to locate files. File organization basics that were discussed as part of this consulting task were:
- Windows' search function
    - Search by keyword
    - Search by text contained in document
- creating folders
- moving files in and out of folders

The Window's search function was discussed using the process-consulting model. Questions such as "What do you think the file is called?" and "What words in the document do you think are unique to it?" were used to guide Ms. Terry as she put in the search terms of the document she was looking for. One way in which the Search function was used was to locate documents for purposes such as opening them up in Microsoft Word so that she could save it as a web page and use it on the NCFH website.

The creation of folders and moving files in and out of folders were focused on using an apprenticeship model. Ms. Terry observed as folder creation was explained and demonstrated, in addition to seeing how it was possible to move files in and out of folders.

The expected results of this focus were:
- A CP with confidence on finding files on the computer.
- A CP with the ability to manipulate the files and folders on the computer in a way that will make things easy to find.
- A staff with more time to perform job functions since finding files will take less time.
- Less time spent on email attachments in regards to searching for files.
- A CP with the ability to easily figure out whether a document exists.
- A plan to reduce the loss of files.
- A CP with the knowledge and confidence to help other staff members in locating "lost" files.

Part II: Outcomes and Recommendations

A. Consulting Outcomes and Recommendations

1. Develop a NCFH web presence
Billie Terry is a dedicated member of the NCFH who through our consulting partnership piloted a NCFH website that is accessible to the public at http://www.ncfh.net. Ms. Terry recognized the need for a NCFH web presence, registered a domain name, and created the website. The consulting work on this opportunity was to select a web site editing program and go over basics of web page editing such as inserting images, text, and links. This website is targeted at members of the organization with computer and Internet access as well as potential donors and volunteers. It allows people to see who and what the NCFH is.

Using Macromedia Dream weaver, Ms. Terry created an index page containing contact information and links to other web pages containing information on whom and what the organization is. Ms. Terry used resources such as flyers to create an announcement page as well as saved existing Microsoft Word documents on the office computer as webpage files. Links have been placed on all the linked pages that lead back to the main page after a member of the NCFH noticed that not all of the linked pages gave surfers the option to go back to the main page without the need to click on the back button of their browser.

Prior to the website being published, the only web presence that the NCFH had was through partner organizations that mentioned them on their websites. The organization now has a website that they have control of and because of this; the NCFH has control over their web presence. The consulting partnership has left the organization with a Community Partner with the knowledge and skills needed to maintain and update the website. People looking for help from the organization or interested in donating resources to the organization can now easily find their contact information and what it is that the organization does with a quick search on the Internet.

The webpage can be sustained as long as Ms. Terry continues to spend time maintaining and updating it. During the consulting partnership, Ms. Terry edited and updated the main page several times by adding links to new pages to it and fixing typos on the website, which indicates that Ms. Terry has the knowledge and motivation to sustain the website. One of the linked pages on the website is an announcement page. Ms. Terry plans to keep that page updated with current information on NCFH activities such as fundraisers and home ownership classes. However, the increased technical capacity of the organization would be at risk of being lost if Ms. Terry was to leave the organization.

The NCFH website contains contact information and announcements of upcoming events allowing people to find out about what is going on by going to the website without needing to receive a call or a mailing. During one consulting session, Ms. Terry was on the phone with a NCFH member and referred the member to the website that she was in the process of updating for announcements. If more people were referred to the announcement page of the website, time can be saved from mailings and calls giving Ms. Terry more time for the other responsibilities she has in the organization. If the announcement page is regularly updated, more referrals to it for information will occur. Since Ms. Terry updated the main page numerous times during the consulting partnership, she can sustain this outcome by maintaining the announcement page similar to the way she has for the main page.

When the NCFH first started creating its webpage, the agenda was to have Ms. Terry become familiar with adding images, texts, and links to the website so that she would feel comfortable updating the webpage herself. As the organization adds more information on their webpage, the number of links on the webpage is increasing to the point where eventually the webpage will become increasingly hard to navigate. The purpose of a web presence is to give people easy access to information, a webpage with links that are difficult to find may frustrate web surfers and cause them not to find information on the organization. Potential donors or volunteers who have trouble finding the information they need on the organization's web page may be turned away from donating their resources or time to it as well. I recommend that the NCFH look into redesigning their webpage.

Some ways to address this problem are:

1. View the web pages of other non-profit organizations to get ideas on how to restructure the webpage. The organization can focus on finding certain information on each webpage and see what kind of design allows web surfers to quickly find what they are looking for. Throughout the creation of the webpage, Ms. Terry arranged images, text, and links herself. She has Dream weaver available to her and the knowledge to move things around on the webpage. Using the knowledge and tools available to her along with some time spent surfing the web; she can reformat the NCFH website so that it is easier to navigate.

2. Some resources that may help give the NCFH some ideas on how they could restructure their website are:
   - http://www.wpdfd.com/ The Web Page Design for Designers webpage offers both tips and resources for web page effects such as fonts, style templates, and reviews for web page editing software programs.
   - http://www.trace.wisc.edu/world/web/index.html this webpage contains tips for "designing more usable web sites" which discusses techniques, has a checklist for an accessible web site, etc.
   - Creating Web Pages for Dummies by Bud E. Smith and Arthur Bebak is a book offers tips on web page design for beginners. This book can be purchased from Barnes and Noble for $19.99

3. The design of the web site can be improved by using the existing human resources that the organization has. One goal that Ms. Terry had for the website was that it would be something

that all NCFH members had input in. A committee of two or three people could be formed to aid Ms. Terry with the responsibilities of design of, collecting member input for, maintaining, and updating the web site.

2. Expanding Ms. Terry's technical knowledge, skills, and confidence

a. Finding Files and Folders on Computer

Many times, after not being able to locate the file by going into "My Computer" and opening up and looking at many folders, a new file would be made. This method had cost the NCFH much time in duplicating existing documents and caused frustration over not knowing whether creating the document was necessary. To address this problem, the search function on the "Start Menu" of Microsoft Windows 98 was focused on. The consulting partnership worked on keyword searches and searching based on text contained within documents. During the creation of the NCFH webpage, Ms. Terry used the search function to locate the document containing the NCFH mission statement and NCFH membership information. The search results showed multiple documents containing the same information and all of them were opened and looked at. The document that Ms. Terry considered the best was kept while the others were deleted off the computer.

Ms. Terry's knowledge of how to use the search function will increase capacity for the NCFH in that less time will now be spent duplicating and searching for documents on the computer. She can use the saved time for more important functions within the NCFH. As long as Ms. Terry continues to use the search function to locate files, it is much less likely that files will be duplicated or lost on the computer. During the process of creating the NCFH website, the mission statement was needed and Ms. Terry went to the search function and started putting keywords into the search field without needing to have this method of searching suggested to her. This indicates that she is comfortable with using the search function and will likely continue to use it in the future.

Ms. Terry is familiar with the naming system of the files on her computer and knows what is contained in the documents that she is looking for so keyword searches and searches on text within the documents have been sufficient in locating the documents she has needed. I recommend that she look into doing searches with wildcard characters that will allow her to search for files on her computer in the case of when she is not completely sure about a file name or what is contained in the document. A useful resource for information on using wildcard characters is the help menu of the search function. By going to the help menu and doing a keyword search on "wildcard characters", an explanation on wildcard characters, what they do, what they are, and why they are useful will open up.

b. Files and Folders Organization

The files of the office computer were stored in random folders based on the preferences of the program that were created with and on those of the particular user that created them. Due to time constraints, the deliverable of an organized computer and a file organization schema is not possible by the end of the consulting partnership. The knowledge gained by Ms. Terry on searching for files, results in the only risk of losing files would be if the name and content of a document is not known and may cause the file being duplicated losing the time creating existing documents. This indicates a loss in capacity that has been gained by the organization since the preventing files being lost and duplicated was a goal and outcome of the consulting partnership.

The virus wiping out all the files on the computer does give the organization the opportunity to start organizing the files on their computer on a blank slate. I would recommend that after a file is created, Ms. Terry could think about which folder in the file cabinet she would place a printed copy of the file in and save it into a folder with the same folder name as one the file cabinet. If a folder with that name does

not exist on the computer yet, she could just create that folder. Another way files could be organized on the computer would be to setup a default file location within software so that it automatically saves files to specific folders.

Some resources on the Internet that discuss computer file organization are:
▪ http://depts.washington.edu/asmcs/Organization&Backups.htm This website offers the advice of saving all documents in the My Documents folder so that all files are in one place and can be found by organizing the files in alphabetical order. It also gives some warnings about storing files in certain directories such as C:\ as it can slow down the performance of ones computer.
▪ http://www.mscc.cc.ar.us/tutorials/FileOrganization.htm is a website that lists different ways a person can organize and find files on a computer. For each suggestion on this site, there is a video file that offers a visual demonstration on how to use the suggestion.
▪ http://www.compukiss.com/ck/tutorials/tutorials_topic.cfm?topic=2 offers the analogy of organizing a computer full of files with organizing a closet full of clothes, and offers tips on how long a file and folder name should be.

B. Other Recommendations

Recommendation 1: Virus Protection
Recommendation: Accomplish the benchmark of "The organization should have virus protection software installed on all of its computers" by using a virus protection program and regularly update the virus definitions and schedule weekly scans to protect files on the computer. Recently, the NCFH had a virus on their computer. The organization ran their anti-virus program but since the virus definitions had not been updated, no viruses were detected. The virus then caused all information on the computer to be lost. Files that had not been backed up were lost.

Using an outdated anti-virus program increases the risk of disaster. Making it a practice to regularly update virus definitions and regularly scanning the files on the computer (either manually or figuring out how to set the program to do it automatically) with an anti-virus program will be invaluable in protecting the organization's computers and files that have not yet been backed up. A registered copy of an anti-virus program allows the program to go to the program manufacturer's web site and download updated virus definitions free. Most anti-virus programs, such as Norton Anti-virus have the option of automatically scanning the files on the computer every day, week, or month.

One way to approach the issue of selecting an anti-virus program may be to try several trial versions of the program (which can be downloaded off the manufacturer's website) such as Norton Antivirus until the organization finds one it is comfortable with before purchasing it. The organization may choose to use several trial versions of these programs at once or sequentially. When the NCFH selects an anti-virus program that they want to purchase, the organization should make a point to go through the software program manual to understand how the program options to manually and automatically scan the files on the computer as well as update the virus definitions for it. I recommend that the NCFH look for an anti-virus program that will scan their files and update their virus definitions automatically and that they automate these tasks to run once every week.

There are many websites that all offer discounted software for purchase to non-profit organizations and information on the importance of anti-virus software such as:
▪ http://www.techsoup.org this website offers Norton Antivirus Corporate Edition 7.6 for as low as $20.00. The target audience of this website is non-profit organizations looking for ways to purchase and plan for technology.
▪ http://www.inet.co.th/security/top_ten.html offers virus and virus removal tools for download off their website.

- http://www.compumentor.org offers services to organizations where they will evaluate the needs of the organization and for a fee implement their recommendations for the organization.
- http://www.chillisoft.co.nz/nod32.htm The Nod32 anti-virus software program manufacturers offer discounted licenses to non-profit organizations. To purchase or get a quote on the price, an email must be sent or a phone call must be made to them
- http://securityresponse.symantec.com/ this site has an updated list of recent viruses, virus removal tools, and offers free virus and security checks.
- http://www.grisoft.com/html/us_index.htm offers free anti-virus protection and free virus definition updates through a download off their website. This site also contains links for the latest virus news.

Recommendation 2: Implement Computer Files Backup Procedure

Recommendation: Implement a procedure to back up computer files to reduce impact of disasters such as a computer virus infecting the office computer.

It is important to backup computer files so that if a disaster such as a virus infecting the computer occurs, important files and information are not lost. As mentioned before, the NCFH recently had a virus on the office computer, which caused the organization to lose all the files they had on the computer. They had backed up the files on a Zip disk, but the Zip disk had not been checked after backing up to see if all the files were on it. As a result, many important documents were lost.

To prevent similar disasters from occurring, the NCFH should implement a plan on how often they should back up their computer files, choose a backup software program, and make it a practice to run a verify function to see that all data was backed up. The NCFH use computers very often for email, writing letters, creating sign-in sheets, time cards, etc., it is in the organization's best interest to backup their computer files on a weekly basis. Due to how most files on the computer are Microsoft Word documents and the majority of the computer's memory is unused; all the files can be backed up on a single disk. A separate disk should be used for each weekly backup and should be organized by date.

Some Internet resources for backing up computers can be found on:
- http://pcsupport.about.com/cs/backuprecovery/ This site offers information on backup techniques and a getting starting guide. There are also links to information explaining the importance of backing up data such as files and a computer's registry. Links to Internet Data Backup services can also be found on this site.
- http://www.novastor.com/backup_options.html A "practical guide for the everyday person". This site offers information such as what device to backup files to, how much the device costs, the capacity of the media associated with the device, speed of device, and comments about using the device to backup computer files. There are also descriptions of difference types of backups (i.e., entire system, data files only), along with explanations on how they are different, and the best device to use for the type of backup. There are also recommended software products for backing up computers and costs associated with the product.
- http://www.nonprofit-techworld.org/software/browse/antivirus_content.html The targeted audience of this website is nonprofit organizations. It offers recommendations of backup software as well as links and resources for nonprofits to help them in protecting their computers from disaster.

Recommendation 3: Use Email to Reduce Telephone Calls and Mailings Reduction

Recommendation: Save resources by reducing the number of recipients of mailings by use email to communicate with NCFH members with email access.

While traditional mailings and calls cannot be completely eliminated due to how not everyone has access to a computer, I recommend that the organization compile two lists of members, one of members who has email and Internet access, and one of members who do not. These two lists can be made by using

traditional mailings and/or calls to ask members whether they have email and Internet access and if so what their email addresses, are. The organization can then save time in communicating information through the slower and more traditional ways of mailings and callings, by sending a mass e-mail to the members who can access the Internet informing them when the announcement page is updated. The resources that the NCFH needs to implement this recommendation are an email account, and working knowledge of using an email address book, which Ms. Terry has as demonstrated by how she easily contacted me through email when she had questions about fixing typos on the webpage.

Some interesting resources for maintaining email lists are:
- http://www.topica.com/ allows people to subscribe to a mailing list or newsletter. The NCFH could set up a mass mailing as an email newsletter or discussion board free on this web site.
- http://www.lsoft.com/products/listserv.asp Listserv is an email list management program that allows user to create and maintain email lists on their corporate Intranet or on the Internet. This website contains a link to a freeware download of this program.
- http://www.coollist.com/ is a website that offers free mailing list services. A person can start one and subscribe to a mailing list free.

Create a Technology Plan
Recommendation: Create a technology plan to aid in allocating funds for technology and applying for technology grants. A technology grant will also set a schedule on how expanded the technical capacity of the NCFH should be given a certain period of time.

In the past, the NCFH was operated out of a single cubicle with one office computer. They have recently moved to a new building and have more computers and space. Since the organization is in the process of receiving new computers, I think a long-term (1 to 3 year) technology plan should be developed and worked into future budgets to maintain these computers. A technology plan will help the NCFH save money on technology and in many cases receive money for needed technology to help further the mission of the NCFH. Technology benchmarks should also be chosen to set a standard for the NCFH to measure their current and future progress in terms of technology.

The following are websites that give helpful information on non-profit technology planning:
- http://www.npowerseattle.org/tools/index.htm   This website offers links to resources for non-profit organizations to help create a technology plan. This website also contains information on where non-profit organizations can go to receive funding to implement their technology plans.
- http://www.n-ppi.com/   http://www.compumentor.org/consulting/tech_plan.html Non-Profit Perspective, Inc. (NPPI) and CompuMenter offer professional services and products at cost to help non-profit organizations with technology planning.
- http://www.techsoup.org/articles.cfm?topicid=11&topic=Technology%20Planning&cg=nav&sg=content_topic11   TechSoup offers an explanation on what technology plans are, and why they are important. This website also provides resources that give a systematic approach to creating a technology plan.
- http://www.bcentral.com/articles/enbysk/109.asp   This website is an article explaining the importance and the impact a technology plan will have on a non-profit organization. It may be useful in helping to motivate the NCFH to create a technology plan.
- http://www.sunwheel.com/planning/tech2.html   This website provides an easy to read systematic guide to making a technology plan. It stresses the importance of flexibility, and how the whole organization must be involved in the technology plan process.

Based on Strategic Communications for Nonprofits' Technology Literacy Benchmarks for Nonprofit Organizations, I recommend the NCFH include the following benchmarks in their future planning in regards to their technology plan.

- Organization should have a two or three year written technology plan that is integrated into the organization's overall strategic plan
- The completed technology plan should have strong organizational leadership and management support.
- The organization should identify someone who is responsible for implementing the technology plan. A committee headed by Ms. Terry could work on taking on the responsibility for implementing the technology plan or identify a motivated volunteer who would be interested and appropriate for this position.

To address the new building expanding the office space and number of computers the NCFH has access to, the following technology benchmarks should be focused on:
- All staff members should follow a technology use policy, and this policy should be included in the organization's employee manual. Some issues this manual may address are:
  - The appropriate uses of the organization's technology
  - User File/Folder organization
  - Printing policies
  - What is considered abuse of organization's technology
  - Actions taken against organization's technology abusers
  - Organization's technology user agreement

The NCFH has recognized that they need to protect their computer files from disaster and address the following technology benchmarks to address this issue:
- The organization should have adequate backup systems and a disaster recovery plan in place.

The new building and computers puts the NCFH in a great position in terms of resources. Ms. Terry has piloted a web site for the NCFH resulting in the organization gaining a web presence that they use to communicate information about itself and what it does. Ms. Terry, with the Windows search function has made much progress in eliminating the problem of files on the computer becoming "lost". With Ms. Terry's motivation for advancing the organization's technical capabilities and these new resources, if the same amount of motivation for taking the recommendations made exist as that for working on the focuses of the consulting partnership, the NCFH will be in a great position, technically.

About the Consultant:
Jennifer Louie is a junior in the Carnegie Mellon University's School of Computer Science and Carnegie Institute of Technology. She is double majoring in Computer Science and Engineering & Public Policy.