I. The Consulting Situation

The Organization
The West Pittsburgh Partnership is located on 37 Wabash Street, which is within a block from the West End-Elliott neighborhood’s main street, South Main Street. There are a few stores along Wabash Street, and right next to the center is a neighborhood library, the Carnegie Library. The center resides in an old yet elegant three-story house, which provides approximately 1000 square feet of space.

Currently, four full time employees work toward the goal of West Pittsburgh Partnership, and serve the West End neighborhood continuously. The following is their mission statement:

Promoting social and economic values by acting in leadership and catalytic roles to foster the revitalization of an identifiably attractive, self-sustaining, and well-perceived community, to the betterment of current and prospective residents and business enterprise.

The center is located at the heart of the West End neighborhood, which is easily accessible by the residents. Meanwhile, the West Pittsburgh Partnership provides services to residents in the West End-Elliot neighborhood and residents in Allegheny County who are interested in setting up businesses or living in the West End-Elliot community. Because of its convenient location and prominence within the community, its services have helped over 5000 residents and 150 businesses in the community.

Unlike most of the community centers, the West Pittsburgh Partnership does not run any classes or sessions on a regular basis. Instead, it provides walk-in assistance for clients. Some clients are directed to the organization by other non-profit organizations since the organization has partnership with other non-profit agencies, programs and government units. Occasionally, the organization can direct or introduce clients to other agencies or programs according to their needs. In fact, the organization is involved in lots of community services. Nonetheless, services provided by the organization can be divided into three main areas: housing financing service, employment counseling service and business development service. For employment counseling services, clients can walk in and use the computer lab to create or modify their resume and set up appointments for resume review, employment counseling services and job referrals. The organization also promotes and encourages clients to seek continuing education. For housing financing service, the organization can assist the clients to set up financial planning for purchasing their own home. At the same time, the organization exposes the clients to different programs that are available to them such as Urban Redevelopment Authority (URA) or community lender program. For business development service, the organization assists new coming business owner to finance, forecast changes and needs; meanwhile, it recruits new and retains existing businesses within the community.

The organization is led by Dru Imler, the executive director who reports directly to the board of director of the organization. The staff of the organization includes Collette Loskoch, the director of workforce development, Eric Kukura, the director of economic development, and Millie Rutkowski, the office
Excluding Ms. Rutkowski, the main responsibilities of the staff members are writing up proposals and carrying out programs within the organization. Since the organization currently does not have budget to hire a technical administrator, the responsibility of technical administration is assigned to Ms. Rutkowski. Meanwhile, Ms. Rutkowski is also responsible for running office errands such as photocopying, answering phone calls, serving walk-in clients etc.

Each year, the West Pittsburgh Partnership receives funding from state and city governments for supporting daily operations of the organization. Extra funding and grants need to be raised for supporting different ongoing projects.

The Technical Environment
Computer technology is used by both the staff and the clients in the organization. All computers in the organization run on Windows 98, and standard software such as MS-Word, MS-Excel and Internet Explorer are installed in the computers.

Staff Technology
Each staff member in the organization has his or her own computer with a color printer. There are four identical computers, which were purchased last year for the staff. Please see appendix A for detail. The staff members in the organization are proficient users of MS-Word since they use MS-Word to write their proposals, program documentation and newsletters. They also use MS-Excel to prepare budget spreadsheets and program charts. At the early stage of the consulting session, Ms. Rutkowski has hooked up all the staff computers to the network so that every staff member has access to the Internet. Currently, the organization has only one AOL email account, and Ms. Rutkowski is responsible to check email in behalf of the organization.

Client Technology
The computer lab consists of nine computers (see appendix B) located on the first floor behind the receptionist area. The computers are networked locally and are connected to a shared network printer and a shared cable modem giving them high-speed access to the Internet. The clients of the organization mainly use computers to write their resumes and cover letters for job searching purposes. They also use the Internet Explorer to access the Internet to search for jobs.

Technology Management
The official title of Ms. Rutkowski is office manager, and her main responsibilities are running office errands and performing secretarial tasks. Since the organization lacks of a formal technical administrator, Ms. Rutkowski is responsible for technology management in the organization as well, which includes duties such as managing email account, web domain, software and hardware purchase etc. There is no explicit plan or system for managing the computers; therefore, Ms. Rutkowski deals with computer issues when they come up. Nonetheless, Ms. Rutkowski is very enthusiastic about improving the technology within the organization.

Consulting Focus
Ms. Rutkowski is the community partner for the consulting project, and she has faced two main challenges for her technology management task. First, a computer lab is newly established which introduces a challenge of managing a complex technical environment. Secondly, Ms. Rutkowski faces the challenge of building a pilot website for the organization which can draw the interest from the staff to build an official website for the organization.
**Technical Environment Support**

First, there is no explicit plan or system to manage the computer lab. The computer lab was newly set up in August this year, and the organization does not have a plan to manage the lab yet. Since none of the staff has previous experience of dealing with a computer lab, they do not have the knowledge to make up a plan for managing the computer lab and find the necessary resources to run the lab.

It is very important to have a system to manage the computer lab to deal with issues such as maintenance of the computers, upgrade of the computers, and an allocation of computer lab resources etc. Again, the mission of the organization is to revitalize the West End-Elliot community. In addition, one of the services provided by the organization is employment-counseling service. The program helps the neighbors to obtain long-term careers and at the same time helps the community employers to match with qualified candidates such that West End-Elliot community will be a better place to live and to open businesses. The computer lab serves a very important role in the employment counseling services. It allows clients to search available jobs online and work on their resumes and cover letters with the computers. Thus, a plan to manage the computers in the computer lab will be very important. Without such a system or plan to manage the computer lab, once a problem arises in the computer lab, no one knows what to do and how to seek help.

Since the complexity of the technology environment of the organization increases due to the addition of the computer lab, it is necessary for the organization to have an official technical administrator. Currently, the size of the computer lab is small; thus, the organization can hire a part-time technical administrator or recruit a student volunteer to perform technical administration tasks. However, the organization does not have a budget to hire a technical administrator. Therefore, there is an immediate need of constructing a managing plan.

During the consulting session, Ms. Rutkowski has completed a computer listing for the computer lab, which includes information about components of each computer system in the computer lab. The computer listing is very important in terms of technology management because it enables Ms. Rutkowski to troubleshoot problems and identify compatible issues etc. Through the discussion with the consultant during the consulting session, Ms. Rutkowski has also gained attention to the importance of incorporating technology planning into a strategic plan for the organization, which is vital for the success of the technology within the organization.

After this project, it is expected that the community partner would be able to maintain and update the computer listing when there are new computers introduced to the computer lab or when there are software or hardware changes in the computers in the computer lab. It is also expected that the organization would start the process of integrating technology planning into a strategic plan of the organization.

The project would be able to increase the capacity of the organization since the community partner has picked up the process of keeping computer listing for the computer lab, which enables her to support the computer lab. Meanwhile, the organization start to plan on a strategic technology planning and thus, the organization should be able to expand its capacity in terms of using, planning and maintaining the computer lab. A well-maintained computer lab would enable the organization to carry its mission of providing services to the community to make West End neighborhood a better place to live, and to work.

**Web Technology**

The second challenge is to build a website for the organization. The organization joined community partnership for Technology Consulting in the Community at Carnegie Mellon University last year. Through last year partnership, Ms. Rutkowski has learned how to create web pages by using Front Page.
2000. Furthermore, the organization owns a web domain name and a web server. However, Ms. Rutkowski does not know how to upload web pages to the web server, and the staff is uncertain about the possibility of building a website for the organization.

A well designed website for the West Pittsburgh Partnership will definitely be beneficial to the organization and the community. Recall the mission of the organization is to revitalize the West End-Elliott neighborhood. Retaining old and attracting new businesses within the community is one of the means to revitalize the region. A well design and informative web site will increase the exposure of the organization and the community, which will attract new comers or visitors to the neighborhood. In fact, building a website is one of the few economical way for promoting the organization and the community. If the website is not built, the organization will lose its valuable chance to expose itself and the neighborhood to the public in the City of Pittsburgh or even the whole nation.

After the consulting session, it is expected that Ms. Rutkowski would have the knowledge of uploading web pages to web server and building a pilot website. It is also expected that the staff of the organization will gain more interest in building a website for the organization and start planning to work toward this goal after reviewing the pilot website.

The capacity of the organization will be increase because Ms. Rutkowski will be able to create web pages and upload them to web server which allow the organization to build its own website as needed. Furthermore, the capacity of the organization will increase if the pilot website successfully draw the interest from the staff to build a website for the organization since a web site can help to promote the service of the organization and the West End community which ties closely to the mission of the organization of revitalizing the West End neighborhood.

II. Outcomes and Recommendations

Consulting Outcomes

Technical Environment Support
The consulting task was to fill in some of the knowledge gaps so that Ms. Rutkowski would be better able to manage the computer lab. After the consulting session, Ms. Rutkowski is able to gain information about components of a computer system such that her ability of maintaining and managing the technical environment has increased. Ms. Rutkowski also concerns more to the integration of technology planning into a strategic plan of the organization after the consulting session, such that the organization would be better planned in maintaining and upgrading its technology.

Ms. Rutkowski was able to obtain computer information for all the computers in the organization and created the computer listing without the presence of the consultant. Since Ms. Rutkowski has learnt the technique of obtaining computer information, if there are new computers installed in the future, she will be able to update and maintain the computer listing. With an updated computer listing, maintaining the computer lab will be easier which ensure the stability of the computer lab and provide reliable services to clients.

Ms. Rutkowski has also understood the importance of integrating the technology plan into a strategic plan of the organization. She has already suggested to the organization of the necessity of adding budget for
technology spending such as computer maintenance, software and hardware purchase, and part-time technical administrator hire.

However, a computer listing and a budget are just the first two steps to maintaining the computer lab. Further discussion on creating a plan for maintaining the computer lab should be held in the staff meetings, since the organization does not have meetings regarding to the computer lab issues. The organization should continue to work on a plan to maintain its computer lab to ensure the endurance of computers in the lab.

In order to maintain the work, more staff meetings are needed to determine at least the following issues:

1. Computer technical support
   - Schedule to check the computers
   - A check list for tracking the computers
   - Schedule to update the computers
   - Resources to maintain computers such as who they can call when computers are down

2. End-user support
   - Training

The above recommendation is some minimal procedures of how a computer lab should be maintained. The schedule of computer checking ensures the computers in the organization run smoothly and discovers any mal-functioned computers before any further damages. For the computers in the computer lab, this step is particular important since computers in the lab are open to the public. Some clients might not know how to use computer properly and break some of the software or even hardware.

A checklist to keep track of the “health” of each computer in the computer lab helps the future troubleshooting and maintenance. All the operations performed to the computers should be recorded in the checklist so that the organization will have a complete record for each computer. Therefore, when problem comes up again, the staff would be able to search if any operations had done before to fix the computer. Alternatively, the staff would be able to inform the technician of the history of the computer so that make the troubleshooting easier. The checklist also provides a managing tool for management team such that the management can analyze the checklist and determine what additional effort is needed for a particular problem.

Schedule to update the computers ensures the computers in the organization are up-to-date and recognizes any new software or hardware needs in the organization in the future.

At last, having contacts to technical assistants is extremely important to the organization. Since there are no formal trained technical administrators in the organization, no one can fix the computers when computers are down.

In terms of end-user support, it is important to provide enough training to end-users so that users can use the computer comfortably. A general introduction of computer system including monitor, keyboard, mouse, floppy drives etc. is needed. Information of how to login and logout the computer, how to use application such as MS-Word, Internet Explore, the concept of folders and files are very important as well. A staff member who can monitor the computer lab and assist end users is also needed as the usage of the computer lab increases.

Both the amount of work and the demand for technology expertise increase in order to accomplish the computer technical support and end-users support; thus, hiring a consultant to help to set up the
maintenance planning for the computer lab is recommended. Moreover, staff training on how to provide support to end-users is needed as well.

Additional resources:

Website about computer lab security
http://www.techsoup.org/articlepage.cfm?topicid=12&articleid=162
Since computers in the computer lab are open to public, it is more secure to create user login for clients

Technical assistant listing
http://www.techsoup.org/sub_discountlist.cfm?resourcelistid=24
It is important to have a technical assistant so that the organization can find help when computers are down

Describe computer support in non-profit organizations
http://www.coyotecom.com/database/support.html
This is a very good reference and pointer to other resources for the organization to learn to do the computer support.

Website about how to document computer systems (make the check list)
http://www.techsoup.org/articlepage.cfm?ArticleId=200&topicid=8
Since no one in the organization has the experience of how to document computer systems, this article gives the idea of documenting computer systems and making the checklist.

Web Technology
The outcome of the consulting project is Ms. Rutkowski is able to upload the web page to the web server so that a pilot website was built. It makes the staff realizes the website is an important corporate communication vehicle and as such the whole organization needs to be represented and the leadership of the organization needs to incorporate a plan for the website into the organization’s strategic plan.

During the consulting session, Ms. Rutkowski learned how to download software for developing the website such as Netscape Communicator, which includes the Netscape Composer for making html documents. She also downloaded WinZip and CoffeeFTPClient to unzip files and upload html files from local machine to web server.

Ms. Rutkowski was also successful in uploading web pages she created to the web server. After the pilot website was up, the staff of the organization has reviewed the website and expressed their interest in further development of an official website for the organization.

The most important evidence is all staff members come together to discuss the website content. In the consulting session on November 8, 2001, a meeting with all staff members in the organization was held. Each of the staff member gave his or her idea of what the website should include and how the website should look like. This is the most important step of building a website. In fact, it is a very important step for any technology planning. This is considered as an increase of organization capacity because the organization did not have any meetings regarding to technology issues prior to the consulting session.
Thus, this meeting has set up a model for the organization to follow later on for any of their technology plans.

Since technology becomes more important to the organization due to the addition of the computer lab and web domain, it is critical for the organization to have staff meetings constantly to discuss the utilization and maintenance of their technology assets which enable the organization to keep up with technology and, at the same time, increase the organization capacity. For example, staff meeting discussing website content and the methods of building website promises the progress of building a website for the organization which helps to promote the organization and the West End community. Meanwhile, it ties strongly with the organization’s mission of revitalizing the West End neighborhood.

If the staff continues to run staff meetings and finishes the discussion of web content and the ways of building the website, they can successfully build their website which will promote their organization and the West End community and, thus, it agrees with their mission. Moreover, their staff meetings can further discuss other technology issues in the organization.

Since the website is not complete yet, it is important for the organization to keep up with the work and continue what the consulting session has left off. Otherwise, the website will remain unfinished, and it wastes the resources of the organization since payments to the web domain name and the web server are made already. Furthermore, a website is a tool to communicate with clients and fund granters. It provides a lot of information for audience such as program information, office hour schedule and useful resources etc. It also helps to promote the organization by posting success stories. Meanwhile, it provides clients with more skills and job visibility. Once again, building a website is important to the organization because a website is a very useful tool to promote the organization and the West End community which ties strongly with the organization’s mission of revitalizing the West End neighborhood.

Please see Appendix C for detail recommendations.

Additional Resources:
1. Websites of other non-profit organizations
   - http://www.redcross.org
   - http://www.chinesenewcomers.org
   By looking at other non-profit organizations’ web sites, the West Pittsburgh Partnership staff can get a reference of what kind of information can be included into its own website.

4. Website which teaches how to build a website
   - http://www.webpagesthatssuck.com
   This site provides very useful information of building a website. It points out both “Don’t” and “Do” for building a website.
   - http://www.techsoup.org/articlepage.cfm?ArticleId=233&topicid=13
   If the organization chooses to build the website in-house. Here are some guidelines to do so.

3. Reasons for building a website
   (Why the web?)
(Planning your site)

Successful examples of other non-profit organizations and article about what website can do can motivate the organization to continue to work on its website.

4. Outsource for building website
• [http://www.techsoup.org/resourcelist.cfm?resourcelistid=7&showall=1](http://www.techsoup.org/resourcelist.cfm?resourcelistid=7&showall=1)

If the organization chooses to build the website by other people. Here is the listing of web developers who develop websites for non-profit organizations.

**Additional Recommendations**

**Backup files**

Currently, each staff member store files in his/her own computer. No extra copies are made for backup. Thus, if computer crashes, those files might be lost forever. The outcome is there will be a backup for every staff member’s files. If his/her computer crashes and files are lost, he/she can always recover his/her files from the backup.

The organization has lots of important documents and information stored in the computers. It will have a great impact to the organization if any computers, which store that important information, are down or damaged. Moreover, those important information might not be recovered after the computer crashes.

Thus, it is important to backup those documents and information so that they can be recovered after computer crashes.

With the help of the backup system, staff files can be restored even after computer crashes. Thus, proposals, which help to rise funding for the organization will not be lost. Therefore, the backup system helps the organization to provide a stable and reliable environment to serve and to revitalize the West End community.

There are many different ways to backup files. Considering the organization size and budget, the following backup plan is recommended.

1. Use the computer in the back office as server

Since there are eight computers open to public in the computer lab, the ninth computer in the back office on the first floor is seldom used. Thus, it can serve as a server for backing up files for the staff. This method can save the cost of purchasing new hardware such as a new hard drive or a new tape to do backup.

2. Each staff member creates a password protected shared folder in the back office computer for his/her own backup

One advantage to use shared folder is that all the computers in the organization are networked already, therefore, no extra work is needed to set up the network. Moreover, the staff can extend the idea and set up common folder with a password shared by all staff so that some shared files can be passed around by the common folder. For the individual backup folders, no one can gain access except the owner, which provide certain amount of privacy as well.
3. Organize all the files, which need to be backup under one single folder

In order to make backup easier, each staff member is encouraged to store all his/her documents into one single folder, which can have many subfolders. For example, a standard way is to have a “My Document” folder under which subfolders such as “Proposal”, “Personal”, “Download”, “My Picture”, “My Music” are created. Files can be organized nicely with the help of subfolders. Thus, each time, only the “My Document” folder needs to be backup.

4. Backup that folder everyday before leaving work by drag and drop the folder into the shared folder

Each time right before leaving work, each staff member can just open up the backup folder remotely in their computer and drag his/her “My Document” folder to the backup folder. The “My Document” folder will be copied to the backup folder and therefore, is backed up to the computer in the back office on the first floor.

Additional Resources:
1. How to set up and access shared folders
   http://www.zedex.net/peer.htm
   Create the back up shared folders on the computer in the back office is the first step of this backup.

2. Guideline to choose backup methods
   http://www.techsoup.org/articlepage.cfm?topicid=1&ArticleId=229
   This article gives a variety of options to perform backup in different offices. This give the organization an idea of what is available to them.
## Appendix A

### Staff computer detail

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<th>Processor</th>
<th>RAM</th>
<th>HD</th>
<th>Peripherals</th>
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<td>40x CD-ROM, 4x CD-RW, 3 ½” Floppy Drive, External Zip Drive, HP 5200C Scanner</td>
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## Appendix B

**Computer lab computer detail**

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<th>Peripherals</th>
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</table>
Appendix C-1

Recommendation for Web Technology

More staff meetings are needed to determine at least the following issues:

1. Audience of the website
Define the audience of the website will help to determine the web content. Potential audience can be students, fund granters, current clients and potential clients.

2. Web content
According to above audience, it is important to have organization information for students such as history of the organization, for fund granters, current clients and potential clients such as services provided by the organization. Of course, audience is not limited to the above suggestion.

Some contents might be included in their website such as:

- Organization Information
  - Mission Statement
  - Programs & Services provided by the organization
  - Facility of the organization
  - Staff
  - Office hour, address, telephone number, email address etc.
  - Statistics such as number of people served, number of businesses being brought into the neighborhood
- Latest news of the organization, current projects, highlight of the month etc.
- Employment page
  - Resume workshop
  - Links to career sites
  - Job postings
  - Resume postings
- Real Estate
  - Photos or videos of properties
- Business
  - Listing of business in West End Community
  - Business environment in West End
- Tour of West End
  - Facilities in the neighborhood such as number of schools, libraries etc.
  - Neighbor interviews
- Links to other useful website such as Pittsburgh website

3. System to approve web content
Since the website is viewed by the public, it is very important for the management team to agree on the web content before it is published. Therefore, a system of approving web content is very important. A required signature from the management team for approving a web page before published maybe appropriate for such purpose.
4. Methods of building the website

- Built by Ms. Rutkowski who has the basic knowledge of creating a web page: This is the most cost saving method, and it makes update web contents easy because Ms. Rutkowski works in the organization as well. However, Ms. Rutkowski is not a professional web developer, it might take time for her to learn the skill to build a professional and dynamical website.

- Built by professional consulting company: This makes sure a professional and dynamical website can be built. However, this is very costly and the organization might not be able to update the website as frequent.

- Build by part time hire such as high school or college students: Hiring a part-time student who has previous experience of building website can ensure the quality of website. A student can work part-time to maintain and update the website as needed, and the cost of hiring a student should be lower than hiring a profession consulting company.

5. Set up a deadline for the project and a timeline for building the website