Women's Enterprise Center
Nancy Noszka, Executive Director
Quentin Nie, Student Consultant

I. The Consulting Situation

The Organization

The Women's Enterprise Center is a non-profit organization built to serve and teach women and minorities to be economically self-sufficient. The Women's Enterprise Center provides training and counseling in finance, management, marketing, procurement, computers, and the Internet. WEC's mission is to institute a proactive approach to assisting businesses and individuals.

WEC was formed in 1998 with support from the Allegheny West Civic Council. Once a month, WEC reports to a board of directors, as well as an advisory board of directors. Last year, the SBA granted WEC $150,000. However, the SBA requires that for every dollar granted, the organization must raise a dollar. Therefore, the annual operating budget for WEC is $300,000. Since it's construction in 1998, WEC now has a client base of over 400 clients (both women and men) in Southwestern Pennsylvania, including Allegheny, Armstrong, Butler, Beaver, Fayette, Green, Indiana, Washington, and Westmoreland.

The Women's Enterprise Center is located on 901 Western Avenue, right behind the PNC Park on the Northside. The Center is conveniently situated in an urban location where it is at the center of all their clients. The Center leases a 700 sq. ft. office space in the ground floor for $1,200/month. In front of the entrance is a courtyard (not part of rental area) that separates the offices and a shared classroom/conference room for the all the offices in the building. The classroom/conference room is a 200 sq. ft. area that contains 12 computers pre-installed with all the necessary software used in the WEC classes. The offices are charged a fee each time the conference room is accessed.

The program focus is to counsel and train women and minorities in small business practices and applications. On a daily basis staff talk one on one with clients, advising them with issues in accounting systems, marketing, and personnel management. A client is defined as someone who receives individual assistance. A member is a company / individual who utilizes the WEC incubator facility for a cost of $150 per year. Membership benefits include (but not limited to): discounts for programs and classes offered at WEC, government contracting and certification assistance, unlimited computer usage, free local fax service, and discount rental prices for the conference area. Current courses offered are Intro to Computers and Intro to Entrepreneurship. The topics covered in the courses are all introductory level. The classes are intended to help members achieve economic self-efficiency, and to help them thrive in the current economic environment.

Name	Type	Primary use of Computer	Computer Skill
Nancy Noszka	Full Time	MS Office	Medium/High
Sharon Burrell	Full Time	MS Office	Medium
Kim Parker	Volunteer	Data Entry	Low
4 Instructors	Instructor	Conduct Class	Varies
Accountant	Outsourced	Quicken	N/A
Tektron Solutions	Outsourced	N/A	High

There are only two full time employees at WEC: Nancy Noszka and Sharon Burrell. Nancy Noszka came to WEC last April as director and is highest in chain of command. Nancy is in charge of overseeing programs and financials, as well as the day-to-day operations in the office. Sharon Burrell is the program

director, and is in charge of scheduling trainers and working with clients. Both are responsible for the one-to-one counseling. There is no fixed schedule for the permanent staff. Schedules depend on the workload, but the office is always open from 9:30 am to 5:00 pm in order for the members to gain access to the facility. At present, there is only one volunteer (non-instructor) employed at WEC. WEC usually has about 10 volunteer workers per year. The current volunteer's name is Kim Parker, and works as the receptionist. Kim is in charge of receiving visitors as well as basic data entry in Access. Instructors come in to teach the courses, and many of them work at a discount. This discount is counted towards WEC's in-kind donation in regards to their SBA funding. In order to make sure all areas of operations are tended to properly, Nancy out sources an accountant and an IT consultant, Tektron Solutions. Tektron Solution's main responsibility is to purchase, install, and configure software and hardware at WEC. Tektron also designed WEC's web page and is in charge of web hosting. Tektron Solutions charges a minimum of $50 per hour for each incident.

Nancy utilizes the computer for day-to-day operations such as scheduling, correspondence, record keeping, budgeting, and forecasting. Sharon utilizes the computer for maintaining the program database, which tracks and calculates the clients who are serviced. The reports generated from the database are sent to the SBA quarterly via e-mail, and is a source for marketing programs and classes. Kim is an excellent typist, but is not skilled at PC navigation. She is limited at this point to data entry, but is attending the WEC's introduction to computer classes.

Technical Environment
WEC has 1 server and 6 workstations in the office, and 12 workstations in the classroom/conference area. All machines are leased from Gateway and are all preloaded with the same software. All computers are connected to the Internet through dsl.net. Only three computers in the office are connected to the server. Additional peripherals include a Cannon UC-200 scanner and two printers. One printer is a Lexmark bubble-jet color printer used only by Nancy, and the other is a HP laser network printer.

Workstation	Software
Pentium 600	Windows 2000
128 MB RAM	Quicken QuickBooks
12X CD ROM	Adobe Photoshop 6.0
ZIP drive	Microsoft Office (Small Business Edition)

Consulting Focus

Optimization of Technology
> WEC staff members are experiencing problems in navigating the computer and completing basic tasks such as:
> - Generating meaningful reports using MS Access.
> - Opening files in different directories and drives (network drives).
> - Editing web pages (HTML).
> - Using the web for research.
> - Printing via a network printer.
> - Formatting and printing mailing labels from MS Access.
> - Use of formulas and graphs in MS Excel.
> - Use of macros in MS Word.
>
> This affects all daily operations carried out at the Center, including mission-oriented tasks. By increasing the individual users confidence with computers and teaching them the basic navigation skills in the applications, employees can complete day-to-day tasks with minimal effort, thereby reducing stress while increasing efficiency.

Nancy is in charge of managing the technological environment at WEC. Since she is not an expert, she redirects most problems to Tektron Solutions, an outsourced IT consultant. Nancy is the one in the organization who decides whether or not to call Tektron on site for a 'pay-per-incident' session. Tektron charges $50 per hour for basic labor, and $80 per hour for special labor (more difficult tasks like setting up a RAS network). This is inefficient, because it takes time for Tektron to come on-site, and due to the number of incidents per month, the costs can mount up to $800/month. An example of a small incident is when Nancy had to pay $50 to change two numbers on the WEC web page. WEC's mission is to teach individuals to become economically self-sufficient, and if WEC cannot utilize the necessary tools to attain this goal, potential clients and members may be discouraged. It is very important for a user to have confidence in using the computer. It must be understood that the PC is only following orders, and does not break down for any apparent reason.

Each week, Nancy spends one hour going over the technical problems she had experienced, and she asks me questions on how to solve them, and the more generalized approach to solve similar problems. For the following two hours, Nancy focuses on a different topic each week:

- MS Access
- MS Word
- HTML
- Internet Explorer
- MS Outlook
- MS Excel
- MS FrontPage

For all the office applications, Nancy wanted to learn about the functions in the menus, and definitions for any technical jargon. There were also very specific tasks she wanted to perform for each application such as printing specific types of reports from Access, or calculating formulas for her budget sheets in Excel. On the web, Nancy first focused on creating and editing simple HTML pages. In addition, she learnt to research information on the web using various search engines.

Nancy will feel more comfortable with computers, and gradually develop the confidence to explore and navigate the computer and web independently. Furthermore, a decline in the number of calls to Tektron Solutions is expected. Tangible outcomes include a web page and databases/reports created in MS Access.

II. Outcomes and Recommendations

Outcomes of Consulting Work
Nancy has learned how to become more self-sufficient by troubleshooting problems on her own. Now, when Nancy encounters a problem that she has never before encountered, she first refers to the installed help files, and then to the web when necessary. If the program weren't commonly used, she would automatically explore the pull down menus to familiarize herself with the environment. Applications explored include:

- Outlook (mail merge, appointment reminders, import/export address book).
- Access (mailing labels, queries / reports, add/edit current table properties).
- FrontPage (open/save pages, navigate program, edit web pages).
- File Management (shortcuts vs. files, edit filenames and locations).

Evidence of Increased Capacity
Throughout the consulting process, Nancy has developed in the way she sees technology. Nancy's speed in accomplishing her tasks has increased. Whenever she receives a phone call and she needs to take note of something, she will quickly switch to Outlook, and use the functions there, whether it is notepad or the calendar. My community partner was able to search for Access related sites on google.com and was able to "save to favorites" all the sites she liked, including http://mis.bus.sfu.ca/tutorials/MSAccess/tutorials.html. Nancy's interest for the web has also increased.

Nancy actively searches for new websites to surf, and asks me for recommendations on a regular basis. And although we were unable to look into MS Publisher and Adobe Photoshop, Nancy has begun exploring the programs and reading relevant material (books and websites) about the applications. Nancy used a book for learning about Outlook, and she has passed this book to Kim, the receptionist. This shows that Nancy is content with the quality of book learning, and has passed it on to her co-workers.

- Created first web page (personal profile).
- Edited WEC web page using FrontPage without outsourced help.
- Printed labels using Access.
- Printed Envelopes using Outlook.
- Imported database of contacts from Access to address book in Outlook.

Sustainability of Consulting Work

Nancy is now proficient in most of her computer applications. She is able to complete all of her tasks easily and is now equipped with the necessary background skills for continued exploration. Nancy is equipped with documentation of all the material covered during the consulting period, and has referred to it numerous times to refresh her memory on the problem/task at hand. This means that she no longer needs to ask Tektron for help, if similar problems arise. Nancy is very quick at learning the material, and is very focused when the material is directly related to the work she does. Towards the end of the consulting period, Nancy troubleshoots most of the problems herself, with minimal help from me.

Recommendations

Linking to other non-profits

- *Description:* In our current competitive economy, it is often difficult for non-profits to stimulate growth individually. I recommend WEC to reach out and contact more non-profit organizations that serve *a similar target audience* i.e. minorities and economic self-sufficiency. Nancy needs to contact the web masters of the respective web sites (which are typically found in the "contact us" link of the page), and ask if they are interested in linking to each other. WEC will create a new page titled "Links", and on that page, they would link to their 'partners'. Similarly, their partner will also link to WEC on their web page.
- *Significance:* This will help WEC to further promote itself at no cost. Nancy has been striving to publicize the company, and this will be an easy way to achieve this organizational goal.
- *Resources:* The following list of organizational web sites are examples of organizations that might be interesting in linking to the WEC site:
  - Women and Business: www.enterweb.org/women.htm
  - Center For Women & Enterprise: www.cweboston.org
  - CIPE Women's Programs: www.cipe.org/prog/women
  - Entrepreneur - Advancing Women: www.advancingwomen.com/entrepreneur.html
  - Young Women's Business Academy: www.marion.ohio-state.edu/YWBA.html
  - Women's Enterprise Resource Center: www.microskills.ca/WERC/WERCabout.htm

Using Carnegie Mellon as resource for IT management

- *Description:* Nancy expressed her interest in obtaining more experienced help for the technological environment at WEC. Reasons for an intern include a constant help for both the employees, and also an IT advisor for the members and clients. I recommend that WEC work with Carnegie Mellon University School of Computer Science or the Heinz School of Public Policy Management to either hire or provide a volunteer opportunity for its students to assist WEC with their IT problems.
- *Significance:* WEC has the capacity to learn from another IT consultant from Carnegie Mellon University. This will enable my community partner to further explore skills not attained in my scope of work.

- *Resources:* Outreach of CMU recommended that the community partner contact Ms. Barbara Brewster, Director of the Master of Science in Public Policy Management program or Mark Stehlik, Dean of Undergraduate Computer Science. My community partner will be able to work with Ms. Brewster or Mr. Stehlik to establish paid and/or unpaid internship opportunities for CMU students. Many of these students are well equipped to manage advanced computer problems ~ well beyond the scope and needs of WEC. This partnership can be the basis for a continuing relationship between the WEC and CMU. A relationship with the CMU can be an on-going project, which can become a permanent solution to IT management problems at WEC.
  - *H. John Heinz III School of Public Policy and Management*
    http://www.heinz.cmu.edu
    Development Office, A207A Hamburg Hall
    Carnegie Mellon University
    - Barbara Brewer (bb1d@andrew.cmu.edu)
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- *School of Computer Science*
  http://www.cs.cmu.edu
  Deans Office, 5120 Wean Hall
  Carnegie Mellon University
  - Mark Stehlik (Mark.Stehlik@cs.cmu.edu)
  Principal Lecturer/asst Dean in CSD Education (Phd)

Problems and Opportunities Identified during Consulting Period

Problem/Opportunity 1: Backup System to decrease chance of losing data
- *Description:* Currently, no files are backed up on the server or on the workstations. Nancy continues to lose files. This is often due to having deleted or renamed the files without realizing it. It's easy to delete a file. I recommend that a backup of valuable data be kept so that she can recover from such disasters. Nancy often has problems identifying the difference between a shortcut and the actual file. Nevertheless, as a precaution, I recommend my community partner to implement a backup recovery system. This can help them in recovering files from virus attacks as well. It was suggested in the technology benchmarks, that non-profits should backup their files. Backups also help protect against hard-drive crashes. Consideration should be placed into which files are crucial to the organization (mission-related). Examples of such files I am aware of include client and contacts database, budget proposals, financial data, and also contracts. Files can be backed up everyday or once a week. My recommendation is to have the system backup files every Sunday noon, as no employees are ever in the office on a Sunday.
- *Significance:* Everybody who has worked with a computer understands the frustration when they are unable to locate their work, or have simply lost it. One example on the importance of backing up files is that they cannot afford to lose data on their limited list of contacts. WEC works on limited resources, and they cannot afford to spend time wondering where their work is on a Monday morning.
- *Action Steps:* The first thing to do is to collect a list of all desired files to backup. All employees must be informed of this list, and that they are not to 'save as' on their own computer, but only 'save', in order to prevent any filename or data inconsistency. Second, they must determine the location to backup their files into. Currently, they have a file server, which is linked, to all the workstations in the office as well as in the classroom. The most obvious choice would be to use this file server. Unfortunately, this 'may' be risky, as this file server is connected to the web, meaning that it is

susceptible to attacks. One way to go around this is to install anti-virus software. This has been under debate for a very long time, but Tektron Solutions has not yet been on-site to install it. Instead of using the file server, WEC can always purchase a separate data storage computer. The data can be stored on many different formats depending on the amount of data. Different companies provide different services. Staff members can create a folder on their workstation named "backup" and every Sunday (or desired time of backup), the backup system will retrieve files from that particular folder. A third option would be to install a zip drive on all workstations, and backup the important files on the zip disk. This is the least efficient method, but it is also the most feasible and easiest to implement, since the workstations are all pre-installed with a zip drive. This is also very useful, if the individual wants to store personal and sensitive information off the server.

- *Resources:* techsoup.com offers a lot of technical advice tailored to non-profits. On techsoup.com, I found the following article: http://www.techsoup.org/articlepage.cfm?topicid=1&ArticleId=229 is a simple to understand and follow article which recommends some backup hardware and software.

Problem/Opportunity 2: Creating a Technology Plan

- *Description:* WEC has a terrific technical environment (hardware, software, networking and connectivity) and that the environment is sophisticated and complex. WEC needs a technology plan that includes identification of user needs. That way, WEC can avoid making unnecessary purchases. Increased knowledge about what is needed in the organization instead of buying everything Tektron Solutions recommends is recommended. By better matching needs to products, Nancy can greatly decrease costs. An example of this is a site (more than one computer) license for Quicken QuickBooks. Since only one user has attempted to use it, a site license was definitely unnecessary. Therefore, I believe that Nancy can benefit from a 2-year technology plan.

- *Significance:* Implementing technology is an expensive job. This is especially true when the organization is non-profit and needs to optimize the use of their funds. Decreasing technology costs can lead to the implementation of other beneficial programs intended at the facility.

- *Action Steps:* First of all, my community partner needs to identify what each individual needs a computer for, and the exact applications they run. This would usually not be the case for a bigger organization, but since WEC only has three employees, it is an achievable goal. Next my community partner needs to decide the necessary equipment, such as the need for a file server, or a print server. As of now, this is probably extraneous equipment, since the workload of the organization is not as large. I believe WEC falls in the category of 'ordinary office computer usage'. This means that everybody uses Microsoft Office on a Windows machine. There was no particular specialty software that WEC uses or is likely to use in the near future.

- *Resources:* Technology Literacy Benchmarks for NonProfit Management, Revised 2001 (Benton) - (provided earlier). This document carefully describes what is needed in a technology plan, and how to write a plan that your board of directors will approve. For the full version, you can download it at: http://outreach.mac.cc.cmu.edu/tcinc/CourseInSession/Curriculum/Week09/TechLitBenchmarks-Revised.pdf