The HUB Downtown Street Outreach Center
Student Consultant: Kenan Hastor
Community Partner: Myra Powell

I: Context Analysis

Organization

The HUB, a Street Outreach Center, is an organization that helps homeless and runaway teenagers between ages eighteen and twenty-one. It is located in Pittsburgh's Business Strip District, at the 26th and Smallman Streets. Founded in 1994 the HUB is a program of Three River Youth, Inc, a private nonprofit organization. The Three River Youth was founded in 1900 to provide services for at-risk youth, services such as shelter, food, clothing, advice, and access to computers. Basically, the Three River Youth supports the HUB mostly in administrative and organizational issues. The HUB receives around $135,000 per year in funding which comes mainly from the U.S. Department of Health and Human Services, the Pittsburgh Emergency Shelter Fund, and the United Way. Three Rivers Youth's mission statement is "through our leadership, we will ensure that all young people in this region affected by poverty, neglect, violence and abuse have available the resources and services necessary so that they may change their lives and, with their families, gain hope for the future."

Facilities

The office space consists of four rooms. Two of the four rooms are offices for the three full-time workers. The main office has Myra Powell, who is the Program Supervisor and in the other office are the two outreach workers Kevin Graves and John Barham. The other two rooms are the conference room and a living room connected with a kitchen. Basically the living room is the room for their clients, who are youths that come over during the day.

Program

The HUB was established in 1994 and serves as a place for homeless and runaway teenagers between eighteen and twenty-one. It is a provider of services and a gateway to the resources of other organizations that they work with. Basically, the HUB provides for its clients (youths) free meals, a place to stay during the day, counseling, computer learning center and recreational services. Moreover it also offers access to other training organizations such as:
- temporary and transitional shelter
- health care
- employment training
- educational training
- teenagers help center

Staff

The HUB Downtown has a staff of three
> Myra is the Program Supervisor. She used to be Program coordinator, after which she became the Program Supervisor. She runs the HUB business operations, which include meeting with partners (donors, sponsors), keeping track of organizational finances, and buying the new equipment (ex. computers). Her computer use is focused mainly on word processing, writing (proposals, resume and memos) and email.
> Kevin Graves and John Barham are Outreach workers. They run the day to day operations of the center. In addition to the operations, they also provide the youth with job search assistance, referrals to neighborhood resources, crisis interventions, recreations, both peer and individual

counseling, and medical care both mental and physical. Their computer use is also limited to word processing, writing (proposals, resume and memos) and email.

Technical Environment

The center is equipped with 8 PCs of differing qualities and capacities. There are six computers in the living room used by their clients (youths) for internet, learning online and taking high school exams online.

All the computers are connected in an Ethernet network with a router that is connected to DSL box. The router has a built in firewall but other than that there are no real security measurements.

The main use of Myra's and John's computers is

> emails
> writing proposals
> writing reports
> writing memos
> surfing for potential donors

Myra and Kevin manage the computers of the HUB. They are the only persons at the center who try to find problems and than report them. When it comes to a serious problem there is support from a part time worker in Three River Youth called Mike Swiatek. He is the computer specialist in Three River Youth headquarters' and maintains the computer systems within the whole organization.
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Technical Management

Technical management at the HUB Outreach Center can be divided into two parts. In terms of daily computer use and panning the organization has Myra who supervises the whole facility. In terms of problems that may arise in such an environment (e.g. networking or software problems), Myra calls upon the assistance of the organization's computer specialist, who is knowledgeable when it comes to these technology-related problems, Mr. Mike Swiatek.

Technology Planning

The HUB doesn't have a person who does the technology planning. Basically, Myra takes care about the technology expenditures for the HUB. She is the one who tries to keep it updated, but it is really hard because most of their technology is donated. The Three River Youth has a technology committee but it seems that they don't really take care about the HUB technological status.

Internal and External Communications

The HUB has an internal Ethernet network where all the computers are connected. In addition they have two printers where one of the printers is only used by Myra and the other one is on the network, so every computer is connected to it. The computers are also connected with DSL to the internet; there is a router that is connected to DSL box which is connected to their local network. Myra and Kevin are use email, but there is not much electronically exchanged information among the staff members and the main headquarters, Three River Youth.

Information Management

The HUB can be described as an organization that is pretty up to date with technology, because of the computers and equipment they have. However, in terms of how much use they get from their technology, one can say that there are more opportunities. Most of their informational flow is paper based. The HUB

has internet access but despite this fact, there is no regular email communication or exchange of information. Most of their equipment is donated by companies from the Pittsburgh area, and it is worth mentioning that donations are mainly organized by HUB's parent organization Three Rivers Youth.

II: Consulting Objectives

Consulting Objectives 1: Develop an Intake Form (questionnaire form) for new clients

Work Task Description:
The HUB Downtown Street Outreach Center is a place for runaways or homeless young people between the ages of 18 and 21 to get food, clothes, and general help between 9am and 4pm. It is very important to keep track of these clients, as some people come regularly and others rarely and there needs to be a way to track their progress, in order to have a history on their clients. Currently the HUB has a Client Information System, which is a collection of forms that every new client fills at their first visit to the HUB and is mainly for identification purposes. It asks for general information about the client such as their name, social security number, birth data and also some detailed profile information. We see a great advantage and opportunity in having these forms filled out and organized electronically. When a new client comes in, he will fill out the questionnaire on a computer. Having all of this information stored electronically will speed up the process of sharing and exchanging information between the HUB and the Three Rivers Youth, which will give the crew more time to concentrate on other things. Safety will be increased, because it is now less likely that some of the documents get in wrong hands, which was a possibility before, by just accessing CP's office. Information will be easier to retrieve, easier to modify. Valuable extensions such as resume storage and other value added features can be added without difficulty.

Approach:
The consultant and community partner set up a word document form where every client would have the opportunity to check in, and fill in his data. The form is set up in such a way that most of the fill-in fields are already pre-specified such as it requires the user to type a nine digit number in the social security field. This document would then be stored in a shared network folder designated for the client which only he and the supervisors will have access to. After the client has filled out the questionnaire, CP copies the file from the shared directory to her directory on her computer and deletes the document on a shared folder so that a new client would not be able to see previous data. Moreover, first time clients would have their picture taken with the digital camera that is already available at the HUB, and it would be attached to the document.

Expected outcomes:
The CP will have the ability to have a detailed view on the data and have the opportunity to find out data about someone much easier and faster than before. This would also speed up the process of transferring information to the headquarters. The CP would have to learn more about Microsoft Word. Depending on how we implement the systems, the CP would be able to make changes and keep it running. The system will eliminate the need for all the filing of paper forms that they currently do.

Expanded capacity:
The benefit to the organization would be that they would have all of their clients' information in one electronic folder and would be able to send this information to their controlling organization, the Three Rivers Youth, easily. Moreover, the check-in process will be much speedier and run much more smoothly as it eliminates problems with illegibility of handwriting and other factors. Keeping track of client history

would be much easier, and statistical analysis can be done on the data for all kinds of evaluations of the organizing and its clientele. It sets foundation for further information solutions or data collection that could be added later.

Consulting Objectives 2: Create an opportunity for clients to write and store their resumes

<u>Work Task Description:</u>
The HUB Downtown Street Outreach Center has clientele that are young and underprivileged. Many of them don't have access to or knowledge about computers. This makes it difficult for them to find jobs as they don't have any documentation or pictures of themselves, and don't have access to online information. It would be a great idea if the clients had an opportunity to create their own resume while at the HUB. They could also take pictures of themselves with the provided digital camera and keep all of their saved files in their own personal directory created for them when they register. They could then print out their resumes, save their documents to a floppy disk, or even burn them to a CD. Basically the CP and community partner set up a guide on each of the computer where every client is able to read the instruction on how to use the digital camera and basic steps on MS Word and MS PowerPoint to write about their lives.

<u>Approach:</u>
The community partner and the consultant set up a folder on each computer with instruction documentation on how to use the digital camera and also an MS PowerPoint presentation that gives step by step guidance in organizing and writing about their lives. It is close to HUB's mission and should serve as a project for youths in which they can "Learn by doing". The users should try to go through instructions first and then try and use the programs on their own. If they have problems, there is always help available from the CP or Kevin (worker).

<u>Expected outcomes:</u>
1. It would help clients create a resume.
2. The HUB could keep one of the copies and maybe give out this information to companies that are looking for new employees.
3. It would be very easy to give this information further to HUB's mother organization Three Rivers Youth and they could have all the information about the clients.
4. It would be much easier for the clients to have some accurate information with them, so if they are looking for a job or something it would help them a lot.
5. By doing this the clients would get a feeling of confidence and get the motivation they need to go and find jobs or pursue their interests.
6. It would help them learn how to use Microsoft Word, which is important since many companies use the word format.

<u>Expanded capacity:</u>
The benefit for the organization from this is that it would be fulfilling its purpose better by helping getting its clients out of their problems. The youths would have access to a computer and more confidence with their new skills. The program, which is also designed to help the clients use the internet and the computers, would make them more comfortable with the use of computers by exposing them from the beginning to the benefits of technology.

Consulting Objectives 3: Install a computers monitoring program VNC

Work Task Description:
My CP states that "The homeless and runaways that visit the HUB Downtown Street Outreach Center often have addictions, lack healthy interests or ambition, or have limited education." Computers with internet access will give the clients the opportunity to use to go online and search the web and maybe find some interests, or take some online learning programs. They might as well visit some sites that are not allowed or download some forbidden programs. But, since we don't want to have staff members constantly walking behind people on the computers, better solution would be if they are able to monitor from another computer. Therefore we decided installing on each computer VNC Servers and on the CP's and Kevin's VNC Viewer. (VNC stands for Virtual Network Connection)

Approach:
The community partner and the consultant installed the VNC (Virtual Network Connection) program on each computer that allows one to see what is happening on other computers. It allows one to see exactly what the other computers are doing by sending the screen information to the CP's computer. This way the CP would be able to monitor the clients without having staff constantly looking over them which might intimidate them.

Expected outcomes:
The kids would now have the means to pursue new interests online, and become educated with the World Wide Web. Moreover the youths would be able to communicate with email and possibly make friends online in chat rooms. The clients also might discover hobbies or interests they didn't realize they had and will be able to research or learn more about them. The opportunities are limitless once they understand basic navigation, and the HUB will be fulfilling its goals better by helping the clients overcome their problems with new interests and new opportunities. Installing VNC means that the CP would be able to catch whenever someone is doing suspicious.

Expanded capacity:
Of the HUB's goals of providing food, shelter, clothing, and help to troubled youths, providing help is the most difficult since it requires communication. Having protected internet access through the VNC would allow them to communicate online and therefore more clients would find people that they can communicate with and relate to. Therefore more users would get out of their troubles. Also, the users would be able to pursue their interests online and educate themselves. This would increase their chances of getting a job and increase their motivation to find a job they like.

III: Outcomes and Recommendations

Objectives 1 Outcome: Intake Form (questionnaire form) for new clients

Outcome 1:
The community partner now has the ability to manipulate files and can copy/move files between a shared folder and directories on her computer. She created a new folder on her computer which she uses to store all the intake forms that the HUB's clients filled out. She even started creating new folders and organized other documents pertaining to the HUB and personal files.

Outcome 2:
After a client fills out a form on the computer and saves this form under his name, the community partner copies the file to her own computer's intake folder and deletes the file on the public machine. She has her

documents arranged by date and therefore minimizes the size of her emails to the person that administers the database of clients in the TRY, by attaching only the recently created or modified files and data. This outcome has increased the capacity in many ways. They now send the forms electronically, more often, and the TRY can import the data to their database instead of extracting the information from paper documents in which errors are likely to occur.

Outcome 3:
In the past the community partner had to look up documents in filing cabinets (which had to be organized manually) whenever changes needed to be made, or data on clients needed to be looked up. She now has all of the data organized in her "intake" folder which makes it much easier to search for data since she can organize them alphabetically, or by date modified with simple key strokes. It is much easier to make changes within documents and the information stays intact unlike paper documents which can wear with use. The HUB used to have trouble with clients filling out more than one intake form creating redundancies, confusion, and more paper work. By using electronic forms CP will realize if names are duplicated and thereby eliminate this problem. This outcome increased capacity by reducing time spent filing and organizing documents which leads to a quicker check-in process for the clients. The community partner also has more time to focus on the clients rather than administrative tasks.

Sustainability:
We did not experience problems associated with intake form and therefore the community partner might have trouble changing it if it needs updating in the future. Also, general network connection problems were not addressed or encountered which means the community partner would not be able to copy intake files from the public computer on which the forms are filled to the directory on her computer in the case that these network problems arise. These setbacks could undermine the sustainability.

Recommendation 1:
The recommendation would be to set up some kind of drop box. There would be folder created on CP's computer that is mapped to a directory in TRY. This would make it unnecessary to send regular emails with attached documents because the CP would now have a drive mapped to a drive of a person at the TRY. She would drop the new intake forms in this directory, and the person at TRY maintaining the database, would receive the new forms from this directory. The steps to achieve this new solution would be to first give sharing permissions to a folder between the HUB and TRY. The shared folder would have to be mapped from the CP's computer to a TRY computer. The CP would then have a dedicated Z drive where she would drop the documents. Resources can be found in Windows help under "Map a Drive".

Recommendation 2:
With knowledge of how forms work and experience with organizing data, the CP has a better understanding of what a database is. A next step would be to streamline the intake form process even further by eliminating the need for the CPs to manually send data to the TRY. TRY already uses MS Access to organize data, and it would be a good recommendation to set up an online web form that is connected to the database at TRY. With this implementation, the check-in process would be faster, the CP would not need to spend any time organizing or sending forms to the TRY. Information would always be up to date. The CP would be able to look up data by querying the database online. The steps to achieve this involve setting up a web form using Access templates and editing this form to match the intake form. The second step would be to set up a server such as a free apache server at the TRY, and configure it to connect to the database via the web. Information can be found at www.apache.org, where you can download the software for free and follow the installation instructions to configure it. MS Access has built in help on creating forms. Overall, this recommendation would eliminate time spent on processing the intakes allowing the CP and other workers to spend more time fulfilling their mission in helping the youths.

Objectives 2 Outcome: Write and store resumes

Outcome:
An example Power Point presentation consisting of 11 slides that shows the functionality and uses of Power Point with writing about your life as a theme. Each slide has a different example of what to write about and where one could add pictures. For example, one slide suggests to write about personal hobbies, and another slide is an example of a resume. In addition to this, there is also a MS Word instruction document with diagrams that explain how to use the digital camera. This outcome increases the capacity by giving the clients more activities to perform, and more opportunities to learn new computer skills which is fulfilling the objectives of the HUB.

Sustainability:
Because we did not test this on actual clients, it might not be sustainable if our instructions or examples are not clear or interesting enough to entice the clients into using the software. In addition to this, they might not succeed in following the instructions and accomplishing some work which would discourage them from dealing with the computers.

Recommendation:
Once the clients have familiarized themselves with the software and found it useful in the creation of resumes or other documents, it could be recommended that more software is added to the computers which would enable them to have even more use from the computers and create more professional final documents. For example Adobe Acrobat could be added to the computers and enable them to refine their documents to a more professional level by converting them to PDF files which give them more control of the layout and design of the document. This would increase the capacity by providing more professional software than before, and more opportunities to learn about new software which is in line with the HUB's mission of helping the youths be productive parts of society. The Software can be purchased at www.adobe.com where they should be able to receive discounts as a non profit organization. But, since the value of the PowerPoint presentation has not been tasted, no real recommendation can be made now.

Objectives 3 Outcomes: Monitoring program VNC

Outcome 1:
The monitoring system allows the staff members to follow the users and if they are doing something suspicious, stop them and report it to CP. This system forces the users to be task oriented until they finish their work. The fact that they know being monitored prevents them from doing prohibited work. It is also a good feedback for the CP as she stated: "We need to make sure that they complete all designated assignments before they move to the next step." The youths have been monitored already two weeks, and Myra states that it helps the staff members force and focus the clients on their tasks.

Outcome 2:
HUB's staff benefits also from the whole system, because it helps them save time by just working at their computers and from time to time take a look at users screens. Moreover it is a perfect tool for staff members to teach the users different things on computer from their computer, for example as a client had problems to find Internet Explorer Myra was able to open the program from her computer for that client. Not only this, but the fact that a staff member can now help and work with more clients at the same time,

just by having two or more different windows open at the same time, instead of walking around and looking over youths' shoulders.

Recommendation:
My recommendation would be to renew some of their Ethernet network equipment. The computer administrator set up the already existing network and he has enough expertise to fix their network, in order to have VNC running perfectly. There has to be changed a network switch port, because the one they have now does not work properly, it loses signals sometimes. My Recommendation would be to get a new network port from www.BestBuy.com, such like LinkSys. They are not very expensive but very easy to set up. The fact of having a good and stable network would guarantee for sustainability of the VNC program and help the staff members work with their clients more efficiently. This is a simple recommendation, but since the CP did not know why they had network problems, it might be useful notification to start checking their equipment regularly.

IV: Additional Recommendation

Additional Recommendation
In the previous recommendations I was speaking mostly how new technology can smoothen processes and save a lot of time for the workers. A useful additional recommendation could be something that could combine or connect the parent organization TRY with their sub organization HUB and increase theirs capacities. For example setting up a VPN (Virtual Private Network) with shared folders and directories would make many processes much easier and open up opportunities for new technologies. An elaborated file sharing system would eliminate redundant systems and equipments. For example both places (TRY & HUB) will need a good backup system, since they are looking to have more and more data stored electronically. Consequently, with a good network systems, they could purchase just one backup system and with that system backup data and files for both institutions. It would save them cost and would require less maintaining work. As I previously mentioned, VPN would centralized most of the happenings and would enable to implement new technologies. They could expand HUB's VNC system, so that for example TRY's computer administrator would not need to travel 30 min. to HUB when there is a computer problem, but instead through VNC fix the problems from distance. As explained in previous two examples a new VPN network would be a base for a greater technological and advanced expansion. It would organize more the data flow and improve the communication between these two locations. Moreover if this recommendation succeeds, TRY could expand it also to their other sub-organizations and connect everything to a big centralized organization. This would also allow them to build a technology report outlining steps for the creation of a tutoring program through out the entire organization, which at the same time perfectly represents their mission.
The necessary steps to implement this recommendation would be depending on the TRY's computer administrator who already has most of the expertise to implement this project. He might need some help, but in my opinion he could use some student help, such as CMU student who could help him out with the job. A good source for that to implement would be a Windows help, because all the operating systems are Windows.
http://www.microsoft.com/windowsxp/pro/using/howto/gomobile/vpns.asp

About the consultant:
Kenan Hastor is a senior majoring in Managerial Economics and minor in Computer Science at Carnegie Mellon University. After graduation, Kenan plans on pursuing strong interests in venture business and consulting with a technology focus. Once attaining a broader perspective, Kenan plans to continue education in an MBA program.

Appendix 1:   **Work Plan Developed by Community Partner and Consultant**

Activity	Who?	How long?	Target Date	W 1	W 2	W 3	W 4	W 5	W 6	W 7	W 8	W 9	Resources needed
Project: Speed up the register process by creating an online intake form													
Creating a Microsoft Access database and Microsoft Word document													
Creating and designing a questionnaire form in MS Word	CP Con.	3 h	14 Oct.	X	X								
Teaching CP how to use MS Access and set up a database	Con.	3-4 h	25 Oct.		X	X							
Teaching the clients how to use the online form and testing the database													
Training few clients how to fill out the form in MS Word	CP Con.	1-2 h	25 Oct.			X							
Teaching the clients how to use Microsoft Word, to correct, paste, check spelling, etc.	CP Con.	1-2 h	28 Oct.			X							
Printing some examples	CP Con.	1 h	4 Nov.				X						

Activity	Who?	How long?	Target Date	W1	W2	W3	W4	W5	W6	W7	W8	W9	Resources needed
Project: Writing and Storing resume	CP Con.												
Teaching the clients how to use MS Word and showing them some resume examples	CP Con.												
Training the clients using MS Word	CP Con.	1-2 h	4 Nov.				X						
Showing the clients some resume examples to get some idea about the size, context, layout, etc.	Con.	1 h	4 Nov.				X						Prepare some resumes and get some examples
Teaching the CP and clients how to use a digital camera	CP Con.												
Showing the CP how to use digital camera and how to take pictures	Con.	1 h	11 Nov.					X					Have the digital camera available
Training the clients how to use digital camera and how to safe pictures	CP Con.	1 h	11 Nov.					X					
Showing the clients how to paste pictures in MS Word	CP Con.	1 h	11 Nov.					X					

Activity	Who?	How long?	Target Date	W1	W2	W3	W4	W5	W6	W7	W8	W9	Resources needed
Project: Installing the monitoring program VNC and teaching CP													
Showing CP how to set up VNC as server and as viewer by installing on PC's	.												
Installing the VNC program on all PC's	CP Con.	1 h	18 Nov.						X				
Setting up a viewer mode on CP's PC and connecting it to other computers (via IP address)	CP Con.	0.5 h	18 Nov.						X				
Teaching the CP how to use it and showing what to do if VNC doesn't work (bad connection or different IP)													
Showing CP how to reinstall the VNC program	Con.	0.5 - 1 h	25 Nov.							X			
Showing CP how to look up IP address from different computers	Con.	0.5 - 1 h	25 Nov.							X	X		
Discussing and preparing our final presentation	CP Con.	1-3 h	2 Dec.								X	X	Outlined presentation

<u>Appendix 2:</u>   **Computers specification in HUB Outreach Center Downtown**

There are five: eMachines PC's T1116 model
                     Intel Celeron processor with 1.10 GHz
                     256 MB of RAM
                     RW CD 16x Samsung
                     Operating system is Windows XP Home Edition
                     Word and Excel 97
There is one: HP Pavalion
                     X86 exact model: Family 6 model 8 Stepping
                     128 MB of RAM
                     CD Rom and RW CD Rom
                     OS: Windows XP Home Edition
                     Office 2000
Myra's PC: PC
                     AMD 1.04GHz
                     224 MB of RAM
                     RW CD JustLink
                     DVD Rom
                     37.2 GB Hard drive
                     OS: Windows XP Professional
                     Office 2000
John's PC: PC
                     AMD 1.04GHz
                     224 MB of RAM
                     RW CD JustLink
                     DVD Rom
                     37.2 GB Hard drive
                     OS: Windows XP Professional
                     Office 2000

Using the Digital Camera

1. The front of the camera, slide the   lens
cover (it says Olympus D-380 on it) to   the
left.

2. To make a preview appear in the screen
on the back, press the bottom-left button
on the back.

[This uses up the batteries quickly. You can also
just use the regular view window at the top.]

3. Press the button on the top of the camera   to
take the picture.

4. Connect the larger end of the USB cable   to
the USB rectangular USB port on the front   of
the computer tower (near the bottom).

5. Carefully lift up the bottom plastic flap on   the
left side of the camera. (It will not come all   the
way off.)

6. Plug the smaller end of the USB cable into slot underneath the plastic
flap.

7. The computer will detect the camera and the Photo Processing Wizard
should start. Read and the instructions to view, copy, or print the
photos. If saving, put them under My Documents and then My Pictures.