School of Computer Science
Course 15-391

Spring 2006

Final Consulting Report

Alcoa Collaborative

Jamil Dewji

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I. Background Information

Since 1997, the Children's School at Carnegie Mellon University has received funding from the Alcoa Foundation to document and disseminate their psychology based approach to early childhood education. In recent years, the funding has been used towards the Alcoa Collaborative for Early Childhood Professional Development initiative. Participating schools in the project include the Children's School at Carnegie Mellon, the Cyert Center at Carnegie Mellon, Shady Lane, and the University of Pittsburgh Child Development Center. The mission of the Alcoa Collaborative is to "share the possibility and power of four diverse centers collaborating on a multifaceted, sustained professional development project." Through tailored programs such as partner site visits, roundtables, book clubs, and national site visits, the Alcoa Collaborative believes it educators can learn from one another and hopes to provide them recognition as professionals who have a role in their own development while validating their membership in the early childhood community.

All of the work this semester was performed in conjunction with my community partner, Jean Simpson, Assistant Director of the Children's School. The Children's School is located on Carnegie Mellon's campus beneath the Margaret Morrison Building. For the collaborative itself, two representatives from each school, my community partner included, serve on a planning committee to oversee and manage affairs. Each staff member has his or her own computer while my community partner has a recent Apple PowerBook which we used to work. All computers are networked through CMU's Andrew File System but files are usually stored locally. No person in particular is responsible for technology management within the school nor is technology an integral part of the budget. Rather, the Children's School is aided by the Psychology Department's own technology support group. Computers and other technical resources are supplied when needed by the University though it does come out of the school's budget. Internal and external communications are primarily handled through email and telephone. Hard copies of important messages are mailed through the university mailing system.

II. Consulting Tasks

Currently, the Alcoa Collaborative does not have a working web site where both project participants and the public obtain relevant information such as event schedules and newsletters. By developing a website, the Alcoa Collaborative can better fulfill its mission of providing collaborative growth opportunities for its members while giving others a better understanding of the organization. The basic approach to this task involves communicating with participating educators to elicit their needs and incorporate them accordingly into our solution. In addition, my community partner, Jean Simpson, must be trained on the basics of HTML and web development using Adobe Dreamweaver software so as to ensure sustainability. The overall tangible outcomes include a fully working static website as well as a staff member with the increased capacity of updating and maintaining the solution.

III. Outcomes Analysis and Recommendation

The results of the consulting task are as follows.

- The new website serves as a central feature of the organization' communication strategy. No longer are emails and newsletters the only means of delivering information to large audiences.

- Updating the site to reflects the Alcoa Collaborative's latest activities is possible as my community partner is now knowledgeable of web development and is able to modify web pages with confidence.

- My community partner's vision of technology and how it can support the collaborative's mission has grown. This appreciation has led to a realization of how easy technology can be and how it can increase efficiency in other areas of the organization.

The first recommendation involves expanding the functionality of the website put in place. By providing enhancements such online event registrations, discussion boards, and interactive calendars, users can interact with the site for a much more pleasant and productive experience. Given a larger web presence, the collaborative can demonstrate a higher level of technological awareness increasing the potential for new partners and members. Moreover, processing time for staff members is greatly reduced. This suggestion is difficult to implement in the sense that no current staff member has the capability of adding the desired functionality. An external source such as a student hire or information services vendor will be needed.

The final recommendation suggests the Alcoa Collaborative adopt the use of web cams or online conferencing to further connect the participating schools through greater communication. Web cams and video conferencing enable each location to hold meetings and presentations that could not otherwise have taken place due to possible financial or time constraints. Meetings and discussions can also be conducted at any time on a more regular basis allowing for accelerated decision making. Most importantly, available conferencing utilities such as file transfers and document and application sharing tools provide real time information exchange between collaborative members ultimately improving collaboration. Implementing this suggestion is somewhat simple as the only requirements are an Internet enabled computer and web cam with appropriate software.

Community Partner

Jean Veltri Simpson

Jv05@andrew.cmu.edu

The Children's School at Carnegie Mellon
MMC 17
http://www.psy.cmu.edu/~kidsweb

About the Consultant

Jamil Dewji

jdewji@andrew.cmu.edu

Jamil is a senior in Information Systems. He will begin working as a business analyst for Bank of America next fall.

Student Consultant, Jamil Dewji
Community Partner, Jean Simpson

I. About the Organization

Organization

Beginning in 2001, approximately $50,000 in funding from the Alcoa foundation was directed to the Alcoa Collaborative for Early Childhood Professional Development whose current participants in this endeavor include Carnegie Mellon's Children's School, Carnegie Mellon's Cyert Center, the University of Pittsburgh Child Development Center, and Shady Lane. Until recently, individual and collaborative efforts were focused on providing high quality professional development opportunities for educators in the southwestern Pennsylvania region, with Carnegie Mellon Children's School staff members participating primarily as presenters at seminars and hosts of site visits. While such activities clearly served as growth opportunities for the staff, goals were shifted this past year to collaboratively advance professional development within each of the partner centers while providing a model of a multifaceted, sustained, joint approach that could be adapted elsewhere.

Facilities

The Children's School is located inside the Margaret Morrison Building in the heart of Carnegie Mellon University's campus. The facility itself is on the lower level and is comprised mainly of office space and fairly large classrooms. The office space is comprised of one main room which houses a secretary and an additional smaller room reserved for the director and assistant director. It also contains a small staff lunch room.

Programs

Last year, the Alcoa Collaborative partners planned a joint professional development project involving 124 educators from the four accredited early childhood centers. Project directors were challenged to offer options tailored to the diverse interests and goals of its staff members, to emphasize long term interactions among center professionals, to use creative scheduling sensitive to diverse program constraints, and to document both process and impact thoroughly. The goal of supporting educators' development in these ways was to enhance the quality of programs at each of the participating centers.

The Alcoa Collaborative Project included four sets of professional development options where educators could learn and exchange ideas:

- Partner Site Visits
- Book Clubs
- Round Tables
- National Site Visits

Staff

My community partner is Assistant Director of the Children's School, Jean Simpson, who serves as an administrator for the collaborative. Nikki Marino, an administrator from the University of Pittsburgh's Child Development Center, will be joining us throughout the semester.

In terms of Alcoa Collaborative itself, two representatives from each school have been placed on a project wide planning committee to oversee and manage affairs. However, it seems as though Mrs. Simpson and Dr. Sharon Carver, Head Director of the Children's School, lead the effort.

Technical Environment

Overall, there are two office computers, one for the secretary and one for public use. Dr. Carver and Mrs. Simpson each have their own laptops. All computers are used heavily and the university's file sharing system, AFS, is available bur rarely utilized. Files are rather stored locally for personal use and emailed when needed otherwise. The entire facility, along with much of the campus is networked.

Hardware: Seven public computers and multiple individual computers in the office.

Software: Common applications such as Microsoft Office Suite

Operating Systems: Mostly Apple OSX and some Windows XP

Technical Management

No one in particular within the Children's School is responsible for managing any technology. However as a part of Carnegie Mellon University's Psychology Department, the Children's School is assisted by an interdepartmental technology support group whose responsibilities range from simple maintenance to troubleshooting.

Technology Planning

Technology is not really included specifically in the budget. The Children's School is allocated a yearly budget from which various items are purchased throughout the year. If certain technology is needed, then it is purchased by either Dr. Carver or Mrs. Simpson ad hoc.

Internal and External Communication

Both internal and external communications are handled primarily by email. However, in some cases in which the information is highly important, hard copies are exchanged or mailed. While situations differ between each child care facility, each staff member at the Children's School has his or her own internal email account as provided by the university.

Information Management

Again, information is managed mostly between paper and computers. Contact information is either stored manually by both Dr. Carver and Mrs. Simpson through excel spreadsheets or through an email application. It is also critical that all educators are surveyed in order to collect general impressions and analyze the effectiveness of the project and its development programs. This information is stored manually in a file cabinet through hard copies then used for future planning.

Unlike many other non profits, the Alcoa Collaborative Project is not an organization but rather a collaborative agreement. There is no central facility and therefore much of the information provided above pertains to Carnegie Mellon's Children's School, one of the four participating child care centers and possibly the most convenient location in terms of accessibility and resources.

II. Scope of Work

Task. Implement a New Website

As mentioned earlier, prior to the semester the Alcoa Collaborative did not have a working web site where both project participants and the public could communicate and obtain relevant information regarding the organizations. The collaborative's communication strategy is very rigid and simple, relying heavily on email or phone messages and written memos or newsletters. Though this approach has "worked" so far, problems still tend to arise. Many hours are wasted writing individual messages. Individuals routinely misplace or don't receive information, teachers tended not to communicate outside of events, and many are unclear on what the organization exactly does. By developing a fully functional website, the Alcoa Collaborative can better fulfill its mission of providing collaborative growth opportunities for its members while allowing further insight into the organization.

Replacing the previous and now defunct website, the task was to develop a new fully functional website that could be used both as a collaborative tool for educators enrolled in the program as well as a marketing tool to attract additional participants, and schools looking to join.

The overall steps of the plan were to:

- Communicate with Alcoa Collaborative's participating educators to find out their needs and how a website would be able to meet them.

- Convey to community partner, the basics of overall web development. Explain what HTML is and what its tags or source code mean. Show how to view any website's source code from an Internet Browser, demonstrating the literal effect of tags on what the web user sees. A clear understanding of this would allow easy fixing of any syntax errors or simple updates of text.

- Go through the process of updating the website with my Community Partner. What is a server and how are files uploaded to it and downloaded from it? How are web pages edited? Explain how software programs like Macromedia Dreamweaver allow for easy visual editing of web pages.

- Create initial pages to get started until the community partner is acclimated and comfortable with the development process. Let partner edit pages on her own while consultant serves as a reference tool or guide along the way. Continue to introduce new material and topics as they pertain to HTML such as images, tables, frames, etc. so as to keep community partner enthusiastic about learning.

- As the collaborative is a joint effort, locate a third party to host the completed website so as the responsibility doesn't fall solely on one participating school. Get the website up and running from the url, www.alcoacollaborative.org.

- Conduct user testing of the website in order to make necessary adjustments and to ensure the organization's goals have been accurately met.

The goal of this task was to help provide Alcoa Collaborative a tool that fosters better communication amongst its current members, an integral aspect of its mission, and also bolsters their online presence so as to attract the public. With the ability to post relevant information in a centralized location, educators and newcomers researching the organization will be able to find a wealth of information pertaining to the collaborative, including event dates, contact information, etc. The organizations communication strategy will also be affected positively as staff members won't have to spend time sending messages on an individual basis. The website will also provide yet another medium aside from the usual newsletters and emails. More importantly, the staff helping create the site will learn a skill that they previously did not know in web development possibly opening the door to more creative ways technology can benefit Alcoa Collaborative.

As to the feasibility of the project, given the somewhat simple nature of the static website we planned to create, it was feasible that it could be accomplished by the end of the semester. As a group, personal deadlines were set for various phases of implementation that would aid us in finishing with additional time for testing and possible slippage. Motivation was also a key factor in our success. As a community partner, Jean Simpson has been very excited with the prospect of having a website for the collaborative and has been very willing to do everything in his power to make it a reality. With its low learning curve, basic web development with HTML is something my community partner should had no problem grasping.

In terms of required resources, the Children's School is lucky in that it's located on Carnegie Mellon's campus and thus has access to much assistance. As a result, obtaining whatever technical resources we required, whether software or server access amongst others, wasn't an issue.

Although this website is largely informational, there were certain risks involved.

- Our requirements were in flux. Although many of the necessary requirements had already been arranged, the potential for changes and supplementation to certain areas of the site was present making it difficult to develop a final vision and possibly effective our progress. To mitigate the issue, we set deadlines for which any and all requirements for the website would freeze, hence allowing us time to implement only that which was necessary and feasible.

- Besides my community partner, an additional Alcoa Collaborative member, Nikki Marino from the University of Pittsburgh Child Development Center, decided to help us throughout the semester. As a result, coordinating the schedules of three different developers, two of whom have full time responsibilities, proved to be somewhat difficult. To avoid the potential for any misunderstandings with regard to development, close communication allowed us to clarify our understanding before and after each meeting and also identify issues early on. Each of us also made our contact information available to facilitate this.

III. Outcomes and Recommendations

Task 1. Implement a New Website

The task of the consultant was to implement a brand new website where both project participants and the public could obtain relevant information on the Alcoa Collaborative and who they are, what they can do, the participating schools, and scheduled events while increasing the client's capacity to update the site in order to improve external and internal communication. A frequently updated web site serves as a tool which not only increases the visibility of the organization by improving its credibility in the eyes of the public but also a centralized repository of useful information which can help the collaborative better fulfill its mission. This task supports Alcoa Collaborative's mission of providing professional growth opportunities for its educators as the website supports collaboration through communication. Also, increased publicity extends the potential for recruiting additional partners whereby providing the possibility for expansion and more program opportunities.

The observed outcomes of this task were three fold. The Alcoa Collaborative's communication strategy is now enhanced as the new website now serves as a central feature of the organization's internal and external communications. The task of updating the new web site to reflect the collaborative's recent activities is also possible as my community partner is now capable of modifying all the site pages with confidence. Lastly, the personal experience of developing from scratch a website has expanded Jean's view of technology and how it pertains to the Alcoa Collaborative's mission. This appreciation has helped her generate creative solutions and ideas to how technology can help streamline some of her own tasks and processes whereby allowing her to support the organization further.

Since Jean developed a majority of the website on her own using her own content and is already on the organization's planning committee, she is constantly aware of what information is posted on the website and subsequently the current events of the Alcoa Collaborative. She is thrilled to have learnt how to edit and publish web pages and is excited about putting her new skills to greater use, even making modifications and additions to the site on her own time. On many occasions, my community partner looked very pleased and happy when making editing pages and making progress.

Before implementation of the website began, it was suggested to my community partner to acquire a copy of Macromedia Dreamweaver to aid in the implementation and learning process. After attempting to install another piece of software, Adobe Photoshop, the sustainability of looking for a piece of software, acquiring it, and installing it became apparent. My community partner also knows how to use certain software on her laptop she didn't before, mainly an FTP program called Fetch. She can now take edited files from her local disk drive and transfer them to the third party host server from which the website is run. Initially this process was guided by the consultant, however by the end of the consulting process, it was evident that my community partner was capable of performing file transfers herself also remembering to place any uploaded files into the same directory from which they came. The process can also be performed in reverse. My community

partner was observed accessing the third party host server to download files. She then opened up Dreamweaver to edit them whereby uploading the files once more after the changes had been made.

The process of creating and editing pages was handled by the consultant early on in the partnership. As the semester progressed, the community partner took full control. When working in Dreamweaver's "Design View" which allows graphical editing of HTML pages, Jean found the task to be analogous to Microsoft Word as much of the web page editing involved changing and formatting text and pictures. There were also certain instances where she was able to work with code and edit tags directly. For example at one point, the program's "Design View" was adding unnecessary paragraph or <p> tags which had to be taken out and replaced by break or <br> tags. After showing my community partner how to do this, she was able to fix the error as it reappeared later on in the process. More impressively, she was able to use another staff member at the Children's School to figure out how to post the Alcoa Collaborative newsletter, a PDF file, onto the website so that visitors could download a copy. This evidenced the fact that my community partner is comfortable using Dreamweaver and is eager to continue to do so. Dreamweaver will be important in helping sustain the website after the consultant leaves.

Before the consulting partnership began, neither my community partner nor Nikki Marino had any previous working knowledge of creating web pages. The Children's School itself had one staff member in charge of updating their own website. This person also occasionally updated the previous Alcoa Collaborative website. However, the site was rarely used and has now become defunct. When its url, www.alcoacollaborative.com is typed into the browser, it cannot be found. Staff members have no recent knowledge of who modified it last and more importantly, why it doesn't work anymore. As a result, greater emphasis has been put on mass mailings and individual communications to relay information.

The website as it exists currently is composed of only static objects such as text and images. Although having discussed the possibility of more dynamic functionality, it is unclear whether my community partner understands its benefits or how interactive functions work. Moreover, I've only seen my community partner correct syntax or formatting errors during our meetings so it's unknown whether she'll be able to correct them without a consultant present.

My community will indeed be able to sustain the solution we've put in place. The resources required to maintain and update the site are simple; a computer, access to the Internet, and Macromedia Dreamweaver, all of which my community partner possesses. Actual modifications to the site are possible as Jean will have consistent practice making updates multiple times a month as new information on events and such become available.

The only pertinent risk that stands in the way of sustainability is if my community partner leaves the Children's School and or, the Alcoa Collaborative. In this case, it would be helpful to utilize and coordinate with the one other staff member who knows web basics or pass on the knowledge to a staff member who is interested in learning. As the site contains very basic HTML, the learning curve is not very high. This will provide a necessary backup in the event of Jean's absence.

Through this consulting experience, my community partner has realized the benefits and opportunities afforded through having an attractive, useful website. As a non technical person, she has also learned that web development, a subject once thought very complicated, is in fact quite simple. Jean has actively expressed on her own, the desire to add greater functionality to the site to make it more dynamic. Specifically, she is interested in adding a login security feature whereby having two different sites, one for current collaborative members and one for the public. My community partner also wants to add an interactive discussion board where educators can discuss and communicate with one another online about their development experiences or an interactive calendar where events can be added automatically.

Developing the website has made my community partner more personally and technically aware of the efficiencies and advantages technology can bring. Certain software such as the FTP program she is now familiar with can not only allow her to maintain the site but also be useful in various other areas of the office and organization. She now knows how a server works. What Macromedia Dreamweaver can do and how Photoshop can enhance visual appeal. She has expressed an interest in learning object oriented programming. With this increased capacity and knowledge, my community partner is better able to generate and follow through on ideas. For example, collaborating with our third party host to provide additional IT services or knowing what online resources to use in order to make our website more robust. These skills will undoubtedly help her serve the Alcoa Collaborative and its mission that much better.

Recommendation 1. Expand Website Functionality

An excellent step towards making the site even more successful would be to add the dynamic functionality we had hoped to implement initially but were unable to. A website where users can interact would ultimately support the mission better than a simple informational site as well as demonstrate a level of technological competence not before associated with Alcoa Collaborative. Dynamic websites are impressive. By providing tools such as online event registrations and a discussion board for participating teachers, users would not only be able to obtain the latest information about the collaborative but easily engage in scheduled activities and connect with fellow members. Consequently, the Alcoa Collaborative would likely experience an increase in activity participation from its members and more importantly, a decrease in processing time for its staff.

There are several options on how to go about making these additions to the site though it will take extensive planning and significant time commitment. There are a number of open source and free web applications available on the Internet for those looking to strengthen their sites. The 'Downloads' page at techsoup.org, a website geared specifically towards non profit organizations, lists free applications such as content management systems and search tools that can be easily integrated into an existing website. The Carnegie Mellon campus itself is a vast resource which can be heavily utilized. Many students are technically apt and many of them have extensive web development experience. One option could be to participate in the Student Technology Consulting in the Community course again and work with a student consultant. Another may be to use tools such as CMU Misc.market or TartanTrak to hire experienced student developers through an arranged work or independent study program.

CMU Misc.market is Carnegie Mellon's online market place. Similar to an electronic bboard, users Misc.market allows users to post and read messages. To post an offer from your email account, compose a new message and place an address for it using the following format in the From:, CC:, or BC: headers, "post+bulletinboardname@andrew.cmu.edu." Thus to post to Misc.market the address would be "post+cmu.misc.market@andrew.cmu.edu." TartanTrak on the other hand, is Carnegie Mellon's customized version of MonsterTrak, the popular job search engine. Here, students actively look for campus jobs, co ops, internships, and part time and full time jobs. Each department on campus are assigned a unique Employer login for all staff to use to enter and edit campus jobs. New users must fill out a registration form through the Career Center. Besides producing a working solution for the Alcoa Collaborative, these options would also provide students with valuable job or research experience.

While the above choices are quite viable, making use of courses such as this one is likely the best option. For example, the Information Systems course 67-475 works specifically to create information solutions for clients in the surrounding community. A description of the course and contact information for its instructors are as follows. The instructors may also be able to point out capable students willing to do the work independently outside of the course

" 67-475 is the senior level team-based capstone course in Information Systems at Carnegie Mellon University. In this course, team design and build an information or decision support system for a client in the community. Client may be a small or large nonprofit or charitable organization or a business unit of the University. The student client relationship will be similar to the relationships that consulting or contract development firms have with their clients. Students must apply what they have learned about software development, project management, organizational procedures and programming. By the end of the semester, teams will provide their clients with a complete, working, usable, and tested solution as well as any necessary documentation and training."

Name	Office	Phone	Email
Larry Heimann	PH 317E	412.268.8211	lheimann@andrew.cmu.edu
Kevin Stolarick	PH 100A	412.268.9593	kms@andrew.cmu.edu
Randy Weinberg	PH 223G	412.268.3228	rweinberg@cmu.edu

By serving as a client, Alcoa Collaborative would be able to closely work with students to create a solution that meets their needs and at no monetary cost. There are however certain, requirements and risks involved. Close and active client participation in necessary for the project to be successful. Clients must be willing to frequently meet and work with students to coordinate requirements, provide constant feedback and evaluation, etc. There is also the added risk that a final project may not be what Alcoa Collaborative is looking for. Teams within the course have varying skill levels and thus not all projects will be of superior quality.

At that point, it maybe helpful to contact an outside vendor that would be able to fix any issues or simply outsource any implementation from the beginning. There are many companies, both local and online, that provide information solutions and services. Though it may cost considerably more, prices can range from $25 - $300 per hour, outsourcing to a well know and proven service provider will ensure the final product is exactly what was intended. A short list of both local and online vendors can be seen below. When considering an outside vendor, it maybe useful to view past projects as they serve excellent reflections of what clients can expect.

Vendor	Contact Information	Notes
Information Solutions and Management, Inc	414 Allegheny River Blvd., Oakmont, PA 15139 412.828.6465	Located in the local Pittsburgh area, ISM offers a variety of services such as web hosting and site design. Its web site at www.isminternet.com details their services and showcases it past work along with a list of dynamic sites they have created and still maintain. The company can be contacted for a free consultation by filling out a form under the 'Contact ISM' link.
Network Solutions	www.networksolutions.com	This website, though without a physical presence, also provides a variety of information solutions and services. Web site enhancements such as traffic counters and interactive tools listed can help bolster an already existing web presence. Pricing and options can be found under the 'Web Site Tools and Utilities' page.

Before implementing the recommendation, there are some items that will have to be considered. It would be necessary to contact the company which currently hosts the website as changes will have to be discussed. Adding functionality to the website will entail the use of server side languages and scripts such as PHP, which give the ability to interact with users, and in all likelihood, a database that stores all necessary information. Unlike HTML which is universally supported, the accompanying tools and proper versions of the software will have to be supported by the host server in order for the site to continue working. For example, if the site is implemented in PHP version 6.0 but the server only supports up to version 5.0, there will be some conflict. These types of requirements plus other like search engine optimization are usually taken care of and agreed upon by the provider but at a slightly additional monthly cost.

Recommendation 2. Connect the Schools Through Video Conferencing

In that most non profit organizations are physical entities, the Alcoa Collaborative is unique in that it's a partnership between four separate locations. Though this may hold some advantages, it must be difficult to coordinate organizational responsibilities amongst all participants as collaborative members are only connected to one another through email and phone. Any meetings must be conducted in person. Given Alcoa Collaborative's mission to increase collaboration and professional growth amongst its educators, further connecting the participating schools would prove valuable. To accomplish this, each location should be connected to the other through the use of web cams.

Above all else, these devices will enable the Alcoa Collaborative to video conference between each location. Used effectively, video conferencing has a dramatic effect on the way organizations are run and the productivity gains they can derive. Educators from each school will be able to converse with another directly without having to physically meet. Roundtables, book clubs, and other large scalable events can possibly be held online. Project planning meetings can occur whenever. Today's web cam software transcends the simple "talking heads" on a screen. When they're used in conjunction with data sharing applications, very powerful collaboration and distance learning systems can be enabled. Participants of this type of meeting can see both each other and also computer generated content. This content could be educational resources, customized multimedia and PowerPoint presentations, etc. As a result, decisions are made faster and collaboration is heightened, supporting the collaborative's mission.

Web cams are extremely easy to use and install. We are all used to entering phone numbers in to mobile phones or fax machines where there is an on screen display of the number being dialed. Video conferencing is similar but with a monitor as the onscreen display and a video image of the participants at the far end. Placing a call is easy, although there are advanced features available on most web cam software, these do not need to be used if not necessary. Connecting the four schools and enabling video conferencing only requires that each location have a computer with Internet access, a web cam with accompanying software, and available work or office space. While the schools all vary in terms of their technical environment and capabilities, all have computers and access to the web. The remaining products can be easily acquired and at a very minimal cost.

Web cams can range anywhere from as little as $30 to over $100 and can be purchased at most electronics stores. Online vendors such as bestbuy.com offer a number of top brand products at comparable prices while sites such as cnet.com not only provide purchasing options but detailed product reviews as well. Web cams also usually come bundled with the appropriate software packages needed to create video clips, online presentations, video email, and more. More powerful software suites such as Microsoft's NetMeeting can be purchased separately. When purchasing a web cam, remember to make sure your computer meets the required minimum specifications for installation. For example to install NetMeeting and similar products, PCs must have at least the following.

- 90 megahertz (MHz) Pentium processor

- 16 megabytes (MB) of RAM for Microsoft Windows 95, Windows 98, Windows Me

-24 megabytes (MB) of RAM for Microsoft Windows NT version 4.0 (Microsoft Windows NT 4.0 Service Pack 3 or later is required to enable sharing programs on Windows NT.)

-Microsoft Internet Explorer version 4.01 or later

-28,800 bps or faster modem, integrated services digital network (ISDN), or local area network (LAN) connection (a fast Internet connection works best).

-4 MB of free hard disk space (an additional 10 MB is needed during installation only to accommodate the initial setup files).

-Sound card with microphone and speakers (required for audio support).

-To use the data, audio, and video features of NetMeeting, your computer must meet the following hardware requirements:

-For Windows 95, Windows 98, or Windows Me, a Pentium 90 processor with 16 MB of RAM (a Pentium 133 processor or better with at least 16 MB of RAM is recommended).

-For Windows NT, a Pentium 90 processor with 24 MB of RAM (a Pentium 133 processor or better with at least 32 MB of RAM is recommended).

-4 MB of free hard disk space (an additional 10 MB is needed during installation only to accommodate the initial setup files).

-56,000 bps or faster modem, ISDN, or LAN connection.

-Sound card with microphone and speakers (sound card required for both audio and video support).

-Video capture card or camera (required for video support).

If web cams are unfeasible, there are alternate software programs that accomplish similar results but on a smaller scale. Instant messaging applications have become very popular as they allow users to maintain a list of users they wish to interact with in real time from the privacy of their own computers. Users can send notes back and forth with others who are also online. Others features of many instant messaging applications include creating custom chat rooms with friends and co workers, sharing web links and files, and in some cases streaming content like stock tickers. There are also services out there specially designed for web conferencing such as Webex. Webex is a widely used online paid service which requires no hardware or software. Users simply connect to the site and can access on demand web meetings and other helpful applications with no servers to maintain or software to install. An online tutorial of Webex and a free two week trial are available at webex.com. Many businesses and organizations are quickly discovering the benefits of instant messaging and web conferencing because similar to web cams, they allow users to collaborate on projects very easily.

Popular instant messaging applications include those from America Online, Yahoo, and Microsoft. AOL Instant Messenger is the most popular as it has the ability to communicate with other instant messaging utilities. With over twenty million AOL subscribers, this is no small matter. Microsoft's MSN messenger lets users talk with another MSN messenger user just like you would over the telephone but each user must have a microphone, soundcard, and speakers; again, all which come included in any computer. Yahoo's instant messaging application is unique in that it integrates very well with some of Yahoo's other applications such as Odigo and Omni which combine services like contact list management and file sharing. Each of these applications can be found and downloaded for free from the provider's website. The URLs are listed below.

- www.aol.com
- www.yahoo.com
- messenger.ms.com

For additional information and articles on online conferencing and its benefits, please visit web-conferencing-benefits.com. Currently there is an interesting and informative article from Information Week, a popular magazine, which discussed collaboration and its effects on an organization, especially one with a large number of remote workers or members. The direct link to the article is, http://www.informationweek.com/story/showArticle.jhtml?articleID=10300343.

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About the Consultant

Jamil Dewji is a senior in Information Systems with minors in Computer Science and Business Administration at Carnegie Mellon University. She will be taking part in the Technology Consulting in the Global Community internship over the summer and return in the fall to start a promising career at Google.

Appendix A.

Below is the survey questionnaire that was sent out to all 124 participating child development educators prior to implementation of the website. Results from the survey which have also been provided were then used to develop a feasible working plan and design for the new website.

One of the goals of the Alcoa Collaborative is to find ways for educators to grow as learners through collaboration with other early childhood professionals. In this manner, we are planning to develop a website for our four partner programs as well as the outside community. To help us develop our website, please take a few minutes to answer the following questions.

Completed Surveys: 37 *(as of 2/28/06)*

Do you have Internet access

   At work?   37

   At home? 31

How do you feel a website for the Alcoa Collaborative would be beneficial to you?
Perhaps
Listing of upcoming events that I could look at on my own time – then they won't "sneak up" on me.
Maybe some other professional links attached (NAEYC, PAEYC, etc.) articles, spotlight on staff, etc.
Somewhat beneficial, as a message board, maybe.
Yes, a convenient way to find info
Easy to access at times convenient to my schedule, e.g. after work, weekends
I think it would be beneficial because it would give me information on the Alcoa collaborative
Yes, to see what is being offered by other Centers
Register on line for professional development
It would be easier to look/read the newsletter and look at the events that are coming up.
Quicker, easier access to info
Communication with other colleagues from other centers
Info at my fingertips
Discussion groups
Depending on the design, I feel that it could benefit everyone with helpful links, knowledge of professional activities, networking, and community outreach.
Yes 11
Yes, information on events, workshops, etc.
Resources
Updated easily
To review events
Professional development Initiatives
I think it would be information & a nice way to communicate with other members
Excellent way to be kept informed
It could be a great resource for professional development events.

It probably is a good idea.
Upcoming Events.
It will be very informative and help me relate with other educators that work with young children.
Professional Development Opportunities.
For information, updates, and upcoming events,
It could help keep me better connected and informed about AC initiatives programs, news, etc.
It could provide direct access to info., people that I was interested in or need to know for my center.
I think it would be a good way to get what good work we do out there so everyone could see.

Please name two or three web sites you use and like the design, color, and/or layout.
PBS Kids
Kid Inspiration
Nick, Jr.
Children's School
NAEYC
Cyert Center
NAREA
Pitt's
Timbuk2.com
Oillly.com
ESPN
"hate" Pennsylvania Pathways
Children's Museum
Center for Creative Play
Dollar Bank, very easy to use
University of Pittsburgh - old website – easier than current site
I use Resource based websites with easy to use user interfaces. Can't think of any that might work for this. I use epicurious com for recipes/cooking instructions – perhaps a way making Early Childhood resources available in a similar way.
MSNBC.con
Google
AOL
www.pittsburgh.com
goggle
pbskids.org
nickjr.com
Disney.com

Here is a list of items that can be included on the website. Please check the top three that you feel are most important.

17   Newsletter

31   Calendar of Events

27   On Line Registration for Professional Development Workshops

9   Discussion Board

1   Mailing Lists

7   Alcoa Collaborative Philosophy/History

11   What Alcoa Collaborative can do for outside organizations

11   Links to all four partner programs

2   Photographs of the four partner programs

Is there anything else you would like to see on the website?
Photos of Past Event
*Anything would be helpful. This is a great idea.*

Appendix B.

Below are screenshots depicting the newly designed web site for the Alcoa Collaborative and its most important pages. Much of the design of was influenced by surveys that were sent out to current collaborative members asking what they would like to see on the site in terms of links, colors, pictures, etc. As many of the pages need scrolling, a number of screenshots only show portions of certain pages.


This screenshot shows a top view of the homepage as it exists now.

This screenshot is the same homepage except seen from the footer. Notice that a user can catch up on the latest activities of the collaborative by viewing the "Current News" portion of the page. Contact information for all participating schools is located at the bottom.
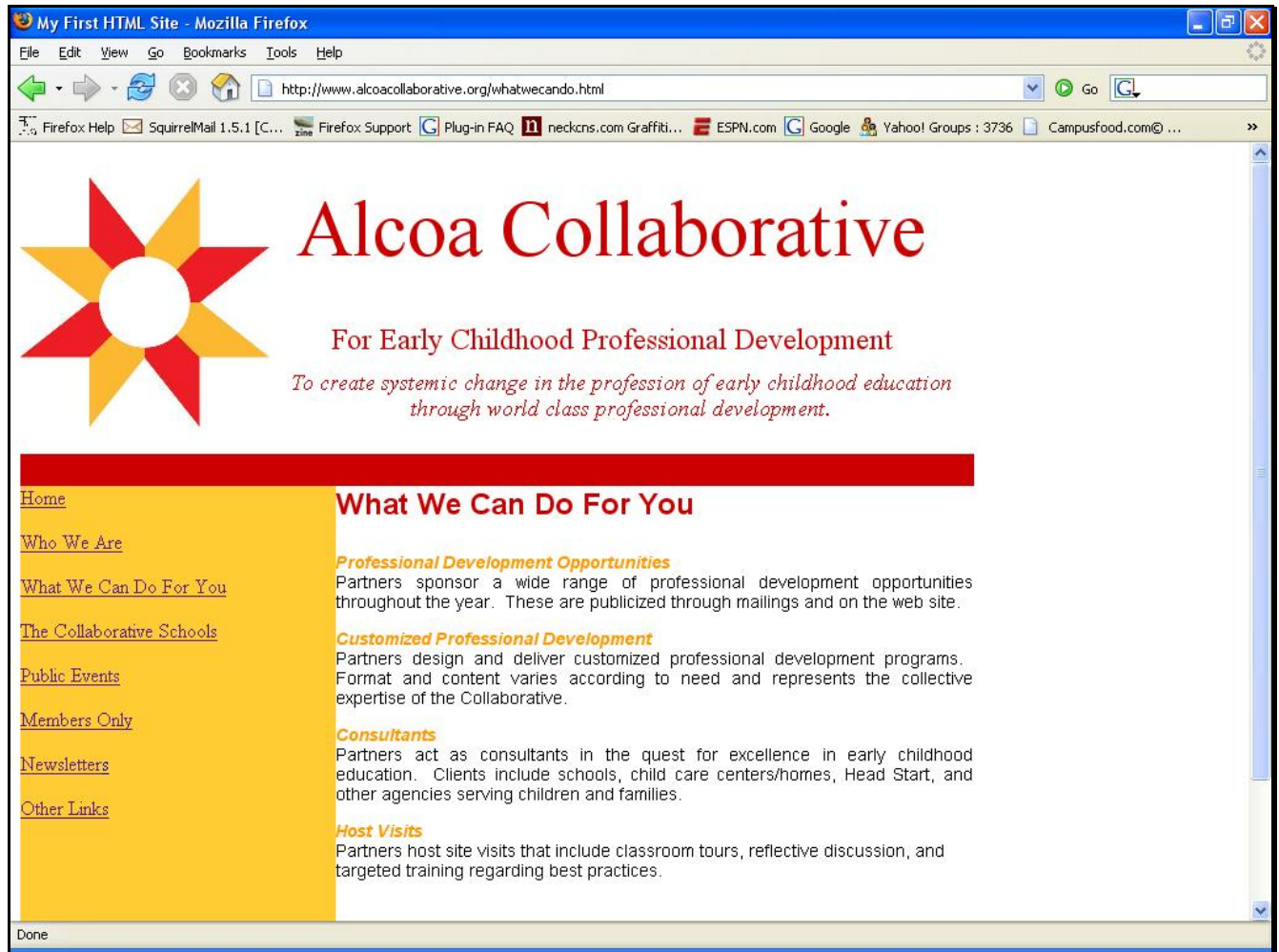
This screenshot shows a page describing what benefits the Alcoa Collaborative can bring. It was meant more for visitors with minimal knowledge of what the organization does.
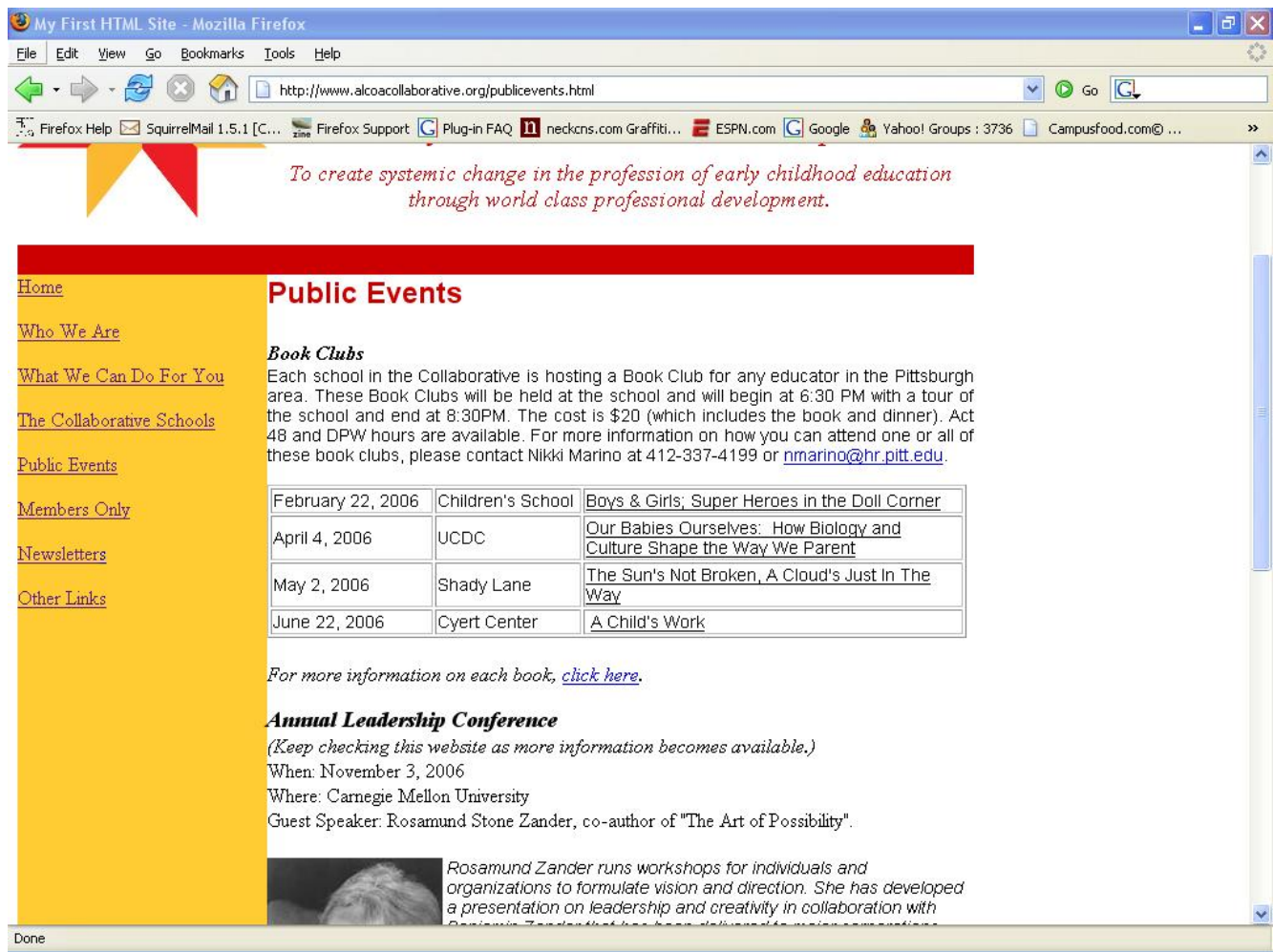
This screenshot shows the public events page which lists scheduled events for the coming months. These events are open to the public and separate from programs scheduled specifically for Alcoa Collaborative members. Not seen is a portion at the bottom which also describes results and thoughts from events that have already passed.
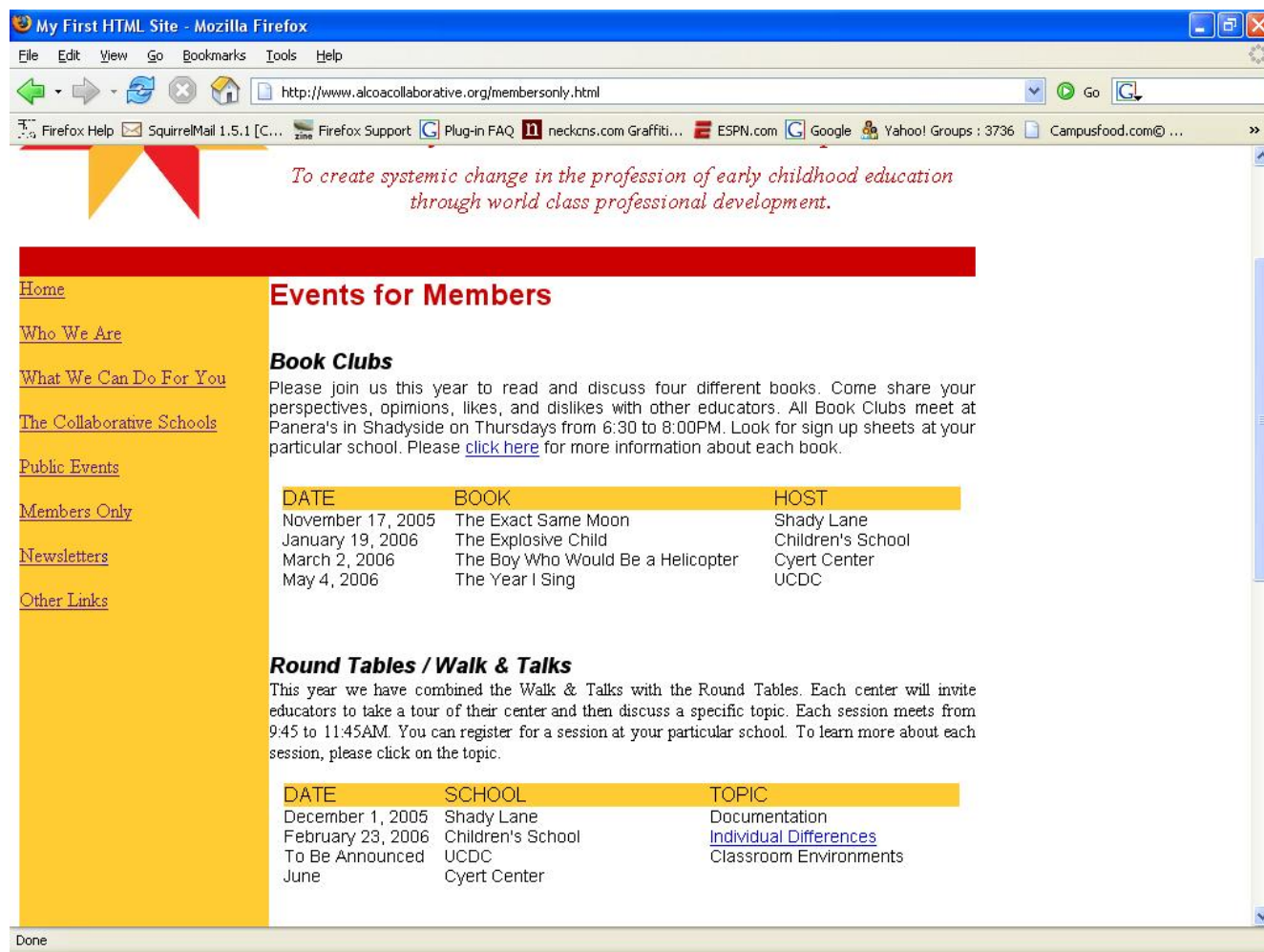
Member events are listed on the "Member's Only page." While there is no real login feature and any visitor is able to access page, the information is meant more for current educators looking for information on scheduled events.

Community Partner Information FAQ
(continued from back cover)

7. What does it cost to be a Community Partner?

The cost for participating in this experience is your time and your commitment to follow through as agreed. As leaders of community organizations, we know your time is of premium value. Those who have made this investment of time have reaped returns many times over.

8. What does the Community Partner have to offer Carnegie Mellon students?

- Students learn to structure unstructured problems. Community organizations are complex environments with complex problems. Your organization provides excellent environments in which to practice the art of structuring problems.
- Students come from different cultural backgrounds and most have never been in a nonprofit organization. They are practicing how to communicate across cultural differences and across technical knowledge differences. They need to be able to make mistakes and learn from them. Community partners provide a supportive relationship in which students can take risks and learn about how to communicate, how to relate, and how to maintain professionalism.
- Students get the opportunity to practice process consulting. They are learning that expertise is only as valuable as the ability to help others solve authentic problems. You provide a context in which students can practice these skills.
- We've found that Community Partners are very appreciative for the students' assistance. There is nothing more rewarding than to experience your efforts as valuable and rewarding for others. You provide that experience for students.
- Finally, you offer a glimpse into career opportunities in the nonprofit arena. Students learn to appreciate those who work in the nonprofit sector, and they grow to appreciate the role and function of community organizations. We hope this appreciation not only informs the choices they make in life, but also encourages them to care and give back to the community throughout their professional careers.

9. How do I become a Community Partner

Contact an instructor, Joe Mertz or Scott McElfresh. Send your contact information: name, title, name of organization, address, phone, fax, location of organization and your interest in being a Community Partner. You will have a telephone conversation and possibly an on-site visit. All organizations are considered, though preference is given to organizations providing services to a low-income community or a community at risk for falling into the "digital divide."

**Send email to
instructors@tcinc.org
(email preferred)**

**Or call
Joe Mertz: 412.268.2540
Scott McElfresh: 412.268.4859**

10. Caveats

- We do our best to ensure that students who sign-up for the class are committed to completing the class, however, occasionally, a student ends up withdrawing from the class during the semester. Typically, this happens when a student has under estimated the time they need for this class. We do our best to advise students so this does not happen. When it does happen, there is nothing we can do except to invite the Community Partner to participate in the following semester.
- The semester is short and the student has to do a lot of work in a short amount of time. For this reason, it is critical that you keep your scheduled appointments, do the work you agree to do, and maintain communication with the student. The student will need your feedback on reports quickly, often the next day. When we get to the final consulting reports, we will need fast turnaround time from Community Partners because we also need to get the reports published in time for the Community Technology Forum.
- If there is any chance that you think you will not be able to follow through with the requirements of this partnership, please wait until such time as when you are able to do it. Since the Community Partner is the focus for the student's learning, it is essential that the partnership be sustained for the semester.

Community Partner Information FAQ

1. What is the goal of the partnership in this course?

The goal of this class is to expand the capacity of the Community Partner to use, plan for, and manage technology, administratively and programmatically. The student is learning process consulting, project management, communication, relationship management, problem identification, and analysis.

2. As a Community Partner, what can I expect to happen?

Once you match with a student consultant, you will set a meeting schedule that you and the student will keep for the remainder of the semester. The student comes to your location for 3 hours a week. During this time you and the student work together. This is not an internship in which the student merely works on site. Rather, it is a consulting partnership in which you must work together to achieve your technology goals. The student facilitates a process that moves from assessment, to analysis of problems and opportunities, to defining a scope of work, to developing a work plan, to analyzing outcomes and finally presenting that analysis. As the Community Partner, you are the consulting client. You provide information and discuss that information with the student. But you are more than a client; you are also a learner. In process consulting the client "owns the problem" as well as its solution. The consultant facilitates the client in achieving that solution. The consultant doesn't "do for" the client. Rather, the consultant works with the client.

3. What types of activities are typically included in a scope of work?

Each scope of work is unique and depends solely upon the specific needs and opportunities of the individual Community Partner. Partnerships have focused on a wide range of activities, including: personal information management (how to use Windows, organize files, backup files, use various software packages, use time managers, use Palm Pilots and other personal information management tools, e-mail, etc.), developing a plan for how to train staff and how to incorporate knowledge and skill into job description, designing a local area network, implementing Internet connectivity, designing and developing a web site, determining effective data storage methods, analyzing the needs for an information database, designing and implementing a database, solving technical problems, designing a public community technology access center, determining the specifications for computers, developing disaster recovery plans, and more.

4. Who can be a Community Partner?

This course target individuals playing an administrative or programmatic leadership role within a community organization. Typically Community Partners are Executive Directors, Directors, Assistant/Associate Directors, Coordinators, and Managers. But, we make the selection based on the organization and the role that the individual plays within that organization, regardless of title.

5. Why do you focus on organizational leaders?

For an organization to use information technology effectively, its leaders must have a vision for how it can support the organization's mission, they must be comfortable enough to integrate technology into their personal work practices, and they must know enough to budget, staff, and subcontract appropriately. By partnering one-on-one with a student consultant, the leader has a unique opportunity to build that vision, comfort, and knowledge, no matter where they are starting from.

6. What are the requirements for being a Community Partner?

- Hold a leadership role within your organization.
- Have a computer in your office or one you could or do use in your job.
- Reliably meet with the student consultant 3 hours per week, every week, for about the 13 weeks.
- Come to an on-campus gathering 2 times during the semester. Once at the beginning and once at the end.
- Share information about your organization with the student consultant.
- Read project reports prepared by the student and give the student immediate feedback.
- Complete a brief response form after reading each report and return to the instructor.
- Keep a log of consulting sessions and send to instructors twice during the semester.
- Read the final consulting report. Give feedback to the student immediately.
- Make a brief presentation at the end of the semester (with the student) at the Community Technology Forum. (This is the 2nd on-campus gathering you are required to attend.)