Friendship Development Associates

Becky Mingo, Community Partner
David Gauthier, Student Consultant

Introduction

Friendship Development Associates works to improve the quality of life in the community of Friendship by purchasing and renovating buildings to create low cost housing for low income families and artists. They solicit community feedback and involvement in many forms so the projects they undertake reflect the goals of members of the community.

Currently, they are involved in several projects. One of the main projects, called the Penn Avenue Arts Initiative, was designed to draw new artists to Penn Avenue. This project is being done in conjunction with several other community organizations. They have already had events to show the community the houses they are renovating and to increase awareness of existing Penn Avenue businesses and arts organizations. They are also involved with a project to rebuild a playground at a neighborhood school. In addition to these, they are also renovating several buildings to create more affordable housing and commercial spaces in the neighborhood.

The Executive Director of FDA decided to have FDA participate in the Computer Science in the Community program to learn how technology could be used to improve the organization's attempts to reach its goals. Specifically, they were interested in determining how a web site could help fulfill their goals. They hoped that a web site could be used to improve the amount and quality of the communication they have with members of the community.

Situational Analysis

FDA has two full-time employees, an Executive Director and a Development Assistant, and an annual budget of about $80,000. A Board of Directors is ultimately in charge of FDA. They receive funding from federal community block grant funds, community fundraising, and income from the buildings they lease and sell, which accounts for about forty percent of their total income. They have recently expanded the scope of their activities to provide a loan/grant fund for the community. They have been considering adding a third employee to reduce the workload of the current staff and to expand the number of projects that can be done at one time.

The current location of FDA is a 700 square foot open office environment in one of the buildings they own and are renovating. The space includes three desks, six tables, two conference tables, sixteen chairs, a couch, and three plants. Within the next year, they plan on moving to a space on the second floor of the same building to allow the current location to be used as a commercial rental space. If a new staff member is hired the existing space will need to be significantly rearranged. Nothing regarding the facilities seemed to be a critical problem at any time this semester.

FDA, in addition to maintaining standard office hours from 9am to 5pm every weekday, currently has four buildings under construction. Three are residential buildings, the remaining one is commercial. They also own two rental properties and three vacant buildings. They plan on purchasing additional buildings this year. The staff felt there was no good way of sharing

information about all of these projects (current status, availability for purchase/rent, furniture or other items that are available) with people in the community. They rely on a haphazard combination of email and paper communication, including a newsletter and signs posted on the street. Improving this communication with the community is a primary goal of the organization, so it can more accurately pursue the needs of the members of the community.

The staff currently consists of two people. The Executive Director is responsible for raising funds, supervising the staff, maintaining the organization's financial records, generating reports for the Board of Directors, managing the development projects, and doing the paperwork required by funding agencies. The current ED was trained as an architect, and has experience using the existing computers and software. The Development Assistant is responsible for managing a few development projects, raising funds in the community, marketing, and volunteer management. The current DA has a bachelor's degree in journalism and a master's degree in social and public policy, and also is familiar with the existing computers and software.

The current technical environment consists of three Macintosh computers and a laser printer. A detailed description of the three computers is at the end of this document. They have an internet connection that is used for email and the web. Email was already used to correspond with many people in the community about projects and events the organization was running. The main problem with the current environment is that the computers are getting too slow to run new versions of programs like Netscape Navigator or Microsoft Office. Another problem is the lack of up-to-date virus scanning software and the lack of a formal backup strategy for most of the data on the computers, which is critical to the organization. The third computer is shared by both staff members to access a FileMaker Pro database so the information does not have to be manually transferred between computers when it is updated. This would be more efficient if the other computers in the office were able to access the database over a network.

FDA had a web site that was created for them by people involved in a project with the University of Pittsburgh approximately three years ago. The web site has not been maintained since its creation by any members of the FDA staff. It was moved from the University of Pittsburgh web server to the server of CityNet, a local Internet Service Provider that has given a free account to FDA. This moved caused several of the main links within the site to break. The staff was unfamiliar with everything the site contained, whether anyone was visiting the site, and they did not know how to fix any of the problems, or whether it was worth the time to learn how to fix them or the money to pay to have them fixed.

The technology management environment is informal. Everyone is responsible for troubleshooting their own problems. No official system exists for reporting or solving problems. If the staff does not know how to solve a problem, they rely on informal methods for finding someone who is able to solve their problem. This strategy has worked fairly well so far, but the staff wanted to increase their knowledge and comfort with the computers to be better able to solve their own problems.

Problems and Possibilities

The main problem the organization wanted to address is the ability to get information to the community about current projects, to people who want to become involved with the

organization, and to people who might be interested in moving to Friendship. Right now this is handled by both staff members, who answer questions on the phone and send out brochures and information to people requesting them. The staff wanted to investigate the use of a web site to make this information available to the community in a way that will reduce the time they need to spend performing the tasks manually. Also, they wanted to see if a web site could reach people, like artists, who were looking for neighborhoods where they could move, but might not otherwise hear about Friendship.

Both staff members were very excited by this possibility. They had the desire and ability to learn the skills necessary to create and maintain a web site. They were very excited about the potential impact the site could have for their organization, especially the ability to reach new people. Attracting even one person to buy one of their properties would justify a large amount of effort being put into the site. The main problem initially seemed to be finding the time to learn the skills necessary to reach our goals, or even to evaluate whether the goals were obtainable. They were reluctant to spend the time on this project if the web site was not going to be beneficial to the organization by helping it achieve its goals.

Another possibility the staff was interested in addressing was increasing the efficiency of their use of their existing computers. Both staff members were already very competent with performing many tasks on the computer, such as word processing, spread sheets, image manipulation, email, and bookkeeping. However, they were not comfortable spending the time to try to improve their technical environment. This included tasks such as upgrading software, installing new software, or finding ways to automate certain tasks, like report generation or backups. They had also considered was finding a way to network the computers, so they could access the database that resides on the shared computer from their own desks. It appeared that these actions had not been taken largely because they feel pressured for time by their required tasks, believing that their existing use of technology was good enough and spending time to try to improve it could be unproductive for the organization.

Scope of Work

We knew from the start that not everything we wanted to address could be fully explored in the limited time in the semester. We determined that the best use of our time together would be to increase the staff's understanding of web site technologies so they would be in a better position to make decisions about the organization's use of those technologies. In addition to a greater understanding, we wanted to increase the staff's comfort with the technologies, so they would be more willing and motivated to perform the necessary functions to ensure the web site is kept up-to-date.

We decided to address two main areas of web skills for the staff to learn. First, they learned general ideas about the functions of a web site, the importance of deciding who the audience for the site would be and what information they would be interested in, and what common techniques other web sites used were, like "What's New" sections or "Frequently Asked Questions." We analyzed several existing web sites to determine what we liked and didn't like, what worked and didn't work, and what ideas were important for us to consider when designing a site for FDA. These skills will be important for setting goals for a new web site and for evaluating it when it is constructed, so it can be a useful site for its intended audience, and its

intended audience can find the site. We also created an overall information structure for a new FDA web site, deciding what information the site should contain and how it should be organized. This should provide a solid foundation for implementing the new site. We did attempt to send email to a few community organizations who had web sites to see how useful they had found them to be. Unfortunately, we never received any responses, indicating that they may have had problems sustaining and maintaining the web site.

The second set of web skills we concentrated on were more low level, implementation types of skills. They wanted to learn basic skills like HTML editing, so they could create new web pages and modify existing pages. We did learn basic HTML and a few more complicated techniques like frames. We experimented with image manipulation, including being aware of the importance of download sizes for web graphics, and being able to resize items. We also experimented with HTML editors and other tools, like image mapping utilities. These skills will be useful in making the staff feel more comfortable with web technologies because they will have a more solid grasp on how the basic components work. It also will be useful because they will be able to perform some of the maintenance tasks for the web site themselves if necessary.

We also decided to address other issues with the technical environment, but at a lower priority than the web site. Both staff members have the skills to perform many of these tasks by themselves, or the ability to find out how to perform them, but did not feel comfortable spending the time to try new things. They felt a need to go through it with someone knowledgeable in that area available for support to gain the confidence to do it themselves.

We did not have as much time to work on this directly, besides installing some new software and adding an external hard drive to one of the machines. Some of the web work that we performed did seem to help achieve these goals, however, because it showed the staff that they could learn new skills and made them more comfortable experimenting with their technical environment.

Evidence of Expanded Capacity

There was good evidence that some of our goals had been achieved by the end of the semester. The staff did increase their familiarity with web technologies, and they did show a greater level of comfort with the technology. Also, they showed evidence of thinking more about the possibilities for technology to improve the organization.

After a few visits during the semester, it became more common for the ED to have found and installed software on her computer, like the new version of Netscape Navigator, or a web editing tool. She already had the knowledge of how to perform these tasks, but it appeared that her comfort level in trying new software was increased. This greater level of comfort should help in ensuring that software, whether or not it is web related, is kept up to date on the computers in the office.

Another skill that improved was the staff's ability to critique web sites. This became evident in our discussions of various web sites. As the semester progressed, both staff members were able to be more articulate about what was good and what was bad with a web site we looked at. They had a better understanding of typical web designs, both good and bad. This will

help them understand what the FDA web site should be able to achieve, and once it is created it will help them analyze any problems they may have. It will also help them be able to assign certain aspects of the web site to other people, either volunteers or employees, because they have a better understanding of what tasks are involved and what they want.

Perhaps the best evidence for expanded capacity, however, was when the ED fixed several problems on the existing web page on her own time. She was able to edit the HTML directly and upload it to the web server, then verify the changes in a web browser. This was important for showing both the skills she had learned over the semester, but more importantly, the motivation to perform these tasks by herself. One of the important changes she made was to correct the email address linked to on the web site, which had been out of date for several years – perhaps the problem that had struck the other sites we tried to contact. This whole process only took her a few minutes, so she learned something about how much time it would require to maintain the site, or at least to make small updates, if she had to do it herself.

Evidence of Sustainability

Because we focused on increasing the skills of the staff, the most important aspect of sustainability is motivation. If the staff remains motivated to use the skills they learned, the goals we worked towards will be sustained. This includes creating and maintaining a new web site for FDA, in addition to maintaining and improving the technical environment of the office, and thinking about new ways to use technology to help the organization.

The evidence of the staff's willingness and ability to work on their own on web site tasks towards the end of the semester is a great indication that this motivation is present. They remain excited about the possibilities of the web site for the organization, and want to find the time to make those possibilities a reality. The example above, where the ED made changes on her own, shows that she is willing to spend the time to do these tasks if she feels she knows how to do it and how long it will take.

The extension of what was learned investigating web technologies to other technical areas was seen when the ED brought up possible networking solutions using the existing equipment they had, instead of buying new equipment. This possibility involved rearranging existing connections so both staff computers could access the database on the shared computer. While this was not acted on yet, it shows that they are beginning to consider new possibilities for their technical environment instead of accepting it as it is currently.

Recommendations

The FDA staff is still interested in creating a new web site for their organization. A web site could be beneficial to the organization by creating another source of feedback from the community, another way to provide information to the community, a much better method of getting information about the organization to people outside the community, and a potential source of prospective buyers and volunteers. These benefits will be worthwhile as long as the costs, in both money and time, are less than the benefits of the web site.

The staff currently has very limited time to devote to any projects that are not critical to

running the organization. If a new staff member is hired, this situation might become more manageable, and responsibility for maintaining the web site could be added to one of the job descriptions.

Another possibility would be to find volunteers that could help work on the web site. Already several people have inquired if they could help with this. For this to be successful, however, the staff will still need to oversee the work and know enough about what they want from the web site to delegate responsibilities to volunteers. This still should result in less time they need to spend on the web site than if they were doing it themselves.

Yet another possibility would be to hire a web developer to design and create the site. This would still require the staff to understand a lot of what they want from the site and have the knowledge to effectively pick a web designer that can do what they want. This will also cost more, which requires finding the money or getting approval from the Board of Directors to fund the project.

I believe that some combination of these tasks will be the most effective plan for leading to a web site that will be useful to the organization and will be sustainable. The staff should be more comfortable with using and learning about web technologies than they were at the beginning of the semester. They need to have a very clear understanding of what they want from the web site and how to communicate those ideas using the terminology of the web. They need to be able to critically evaluate web sites and judge the value of work done on their site by other people.

Next, they should develop a prototype of the site with some of the volunteers they already know are interested. This process will help them learn the quality of the volunteer's work and their ability to work together on the project. This prototype should be reviewed by a graphic-design oriented web developer, whom they have already contacted and is willing to provide this service for a small fee. This will help them find a professional look for the web site.

If the volunteers appear able to handle more, they should be given the responsibility of turning the prototype into a real site. This will include creation of the pages and establishing procedures with the staff for how to update information on the site. If the staff is uncomfortable having the volunteer do this, they should hire a web developer to do this. I do not think that the staff has the time to create the site on their own based on the limited experience they have had with this technology.

After the initial site is created, the staff will be primarily responsible for making small updates to information, such as adding new projects or events. This should not be a problem if the staff is comfortable with the procedures they need to follow to perform these tasks. To keep the staff motivated, it may be important to specify a regular schedule of when updates should be made. It would also be useful to incorporate the web site into some of their regular existing procedures for storing information about their projects and events, so it becomes integrated into the rest of the work they do for the organization.

Appendix A: Resources

Other community development organizations have created web sites that provide good examples of why it is important to maintain a web site once it is created.

http://www.esndc.org/

This is a web site for another community development organization. It seems like a reasonable, simple layout, but it looks like it has not been updated since 1997. Looking at this web site, it seem like a web site cannot be useful without regular updating, no matter how nice the initial design was.

http://www.hchcda.co.harris.tx.us/

Here is another similar site, which looks like it may be updated more recently. They have an unclear list of areas on their web site. Examples of good ideas but poor design may help reinforce the idea that our web site needs to be more than something thrown together to contain the information that was created for other mediums.

Technical reference sites are also useful, either to learn new skills or to refresh those learned during the semester..

http://www.hotwired.com/webmonkey/

This site has tutorials for learning web technologies (like Java, JavaScript, HTML) and guides for learning about the web itself - how to buy a car online, or find and play mp3s. They even have a searchable glossary to find definitions of web-related terms. Besides technical issues, they have a section devoted towards web design issues, which is more in line with the staff's interests. Learning about these issues will help the staff whether they are directly involved with the creation of the site or if they are working with professionals who are doing the work.

http://www.download.com

This site has an amazing amount of software, including Macintosh software, to download. This is useful for finding new tools and updates to existing ones. Being able to find software, especially if you do not know exactly what you are looking for, is an important skill that this site helps make easier.

Appendix B: Current Computers

ED's Computer:
Macintosh Performa 6300CD
49MB RAM
440MB HD
28.8 bps modem
CD-ROM drive
OS: System 7.5.1

DA's Computer:
Mac Quadra 605
20MB RAM
76MB HD
external 28.8 bps modem
OS: System 7.5.3

Shared Computer:
Mac LC II
11MB RAM
36MB HD
HP LaserJet 6MP Printer
OS: System 7.1

Common Software Used:
Microsoft Office
Netscape Navigator
Eudora
PageMaker
Photoshop
FileMaker Pro