East Liberty Development, Inc,
Whitney Finnstrom, Community Partner
Kenneth J. Toley, Student Consultant

Introduction

The East Liberty Development, Inc. (ELDI) is a non-profit community development corporation created to improve the growth of business and the overall quality of life for residents in the East Liberty Community. "The mission of ELDI is to foster the revitalization of the East Liberty community. Working in collaboration with community stakeholders, ELDI acts as a catalyst for positive change by providing leadership in the areas of planning, advocacy, image building, and investment." Their mission to revitalize East Liberty includes promoting better affordable housing for local residence. Attracting new businesses / consumers to the area, and linking businesses with job opportunities for residence. ELDI aims at improving public streets, recreation areas, promoting public safety, and providing and improving the potential for the community's young people to succeed.

Community leaders founded ELDI in 1979 as an effort to prevent and reverse the deterioration of East Liberty as a viable business district. Since 1982 ELDI has fostered over $65 million of private sector reinvestment in East Liberty businesses and property. From 1997 to 2002 $32 million in private and public funds will be invested in East Liberty through the efforts of ELDI. Funding for ELDI community improvement projects stem from the Urban Redevelopment Authority, the City of Pittsburgh, state / federal grants and private financing.

To be successful ELDI focuses on the problems and needs of the community. They conduct community-planning sessions to address the concerns of residence, business owners and other community organizations. ELDI builds relationships with business, economic development organizations and social service agencies and has being trying to improve its support from the community. One of the means in which ELDI achieves its mission and objectives for the community is through the distribution of the literature and research ELDI conducts on the economics of East Liberty.

For both business owners and consumers such information helps to reveal East Liberty's economic potential. Advertising community events attracts potential consumers, investors and entrepreneurs to East Liberty. Promoting social services and informing the community of laws and issues that may effect them help provide individuals with access to unrealized resources and provide them the power to influence the future of East Liberty.

ELDI recognizes that one of the best means to distribute informative literature and promote service to such diverse audiences is thorough the inexpensive exploitation of the Web medium. So approximately two years ago they obtain Three Rivers Freenet as their service provider and constructed the organization's first web site.   **(See AP1.)**

ELDI Preliminary Situational Analysis

History

The project to build ELDI's web presence began roughly two years ago by an individual who has since left the organization. The site is not complete to ELDI's satisfaction and when reviewed by Three Rivers Freenet (a review is required before Three Rivers Free net will publicize any site they host) it was found to be an unacceptable design. Three Rivers Freenet's critique pointed out a lack of consistency in design across separate pages, broken images, broken links, nonfunctioning scripts, and unintuitive navigation as the major problems with the site. Three Rivers Freenet informed ELDI that they would reassess the site after the major issues had been addressed.

Due to lack of resources or the required skill, others did not pick up the web project at ELDI full time after the individual previously responsible for it had moved on. Some staff ambitiously attempted to learn some HTML (hypertext mark up language used for web page creation) and experimented with editors having limited success. In staff attempts to update the site they noted a great deal of difficulty, uploading files to the web server. Not aware of how to improve upload speed and reliability, the project is temporarily abandoned.

Primary Goals

ELDI wishes to redesign and maintain their web presence on the Three Rivers Freenet web server. The hope is to exploit the site as a means of aiding their community efforts. The wish is to use the web as an inexpensive medium, through which ELDI may distribute the newsletter, statistical information about East Liberty, information about the company, and community events that attract consumers to East Liberty. ELDI also intends to provide resources that aid potential business investors, individuals looking for affordable property, and job placement.

Secondary Goals (long term)

A secondary goal of ELDI is to create a local area network to improve their productivity in the office. The staff also feel that a file sharing and system backup would be a useful tools for them. All of their machines have come equipped with working Ethernet cards but they have no server set up and no cable in place. Some of the staff feels that the office could benefit from a faster connection speed as well.

Technical Assessment

I feel that ELDI has all the essential resources necessary to produce and maintain a large-scale web presence with fair efficiency based on the following information gathered:

The office has three IBM clones at no less then 166mz running win32 systems running Windows 95 with modem access to the internet. (They all share the same analog phone line but currently it accommodates only 4 users, sufficiently at 56k. They take turns using the line.) Web Development software does exist on the premises on one PC, along with one document scanner, one flat bed scanner, and the capital to purchase graphic editing software. They have plenty of content and are registered with the ISP (Internet Service Provider) Three Rivers Freenet.

Staff Assessment

Rob, Whitney, and Niladri, (the staff I am working with) are fairly familiar with the use of their office computers and Whitney has taken a web design class focusing on html. They have not had much experience with WYSIWYG editors and are not familiar with the benefits and drawbacks

of visual editors. They are excited about the idea of using the web site as a community resource and have done some research on different web designs. They have clear ideas of what they want to do with the web site and even opinions on how it should look. Fortunately all of them have a technical basis on which can be built the foundations of good web design. With the addition of a few techniques for learning and experimenting, I hope to leave them with the ability to educate themselves on how web designs are crated and how new design techniques are developed. None of them have any programming experience so I will avoid teaching them the more advanced concepts of Java, Pearl, CGI, and JavaScript. Whitney and Niladri also handle the technical support for ELDI and I expect to make them a bit more familiar with some of the less known features and bugs in their win32 operating systems. For the most part they handle the problems they run into however, I have noticed that they are not accustom to using their manuals or online resources for assistance.

Conclusion of Analysis

The resource and time is available for one or two members of ELDI to bring the site up to speck and learn to maintain it efficiently. However the time not spent working on the site the last two years and not keeping up with technology has made much of what may be recalled from ELDI's first attempt at web, design obsolete. For ELDI to reach its goals with this web site the staff must build a new body of knowledge regarding basic web design and graphic editing. They must be taught some basic HTML, web design concepts, established web design conventions, new features available in the current version of HTML, bandwidth restrictions /solutions for their target audience, and the techniques for quick publishing required to keep a web site current with as little labor as possible. The staff does not have a suitable set resources they can learn from and have no idea what software may permit them to maintain an acceptable level of production. Hence they have sought consultation in the hopes that it will eliminate the barriers preventing them from exploiting their web site.

Proposal

I devise a lesson plan to first introduce the concepts of WYSIWYG and HTML editing and consequently remote file publishing. I then move to web design techniques and over view design conventions and basic concepts of how the web works from client to server. (Concepts primarily important to web designers.) I help them explore image editing, file compression, and its effect on download time vs. quality. Thus forming the basis for the explanation of /use of graphic illusions that web designers exploit to gain desired visual effects. (GIF 89, transparent images, animation techniques, background designs, translucent images, dithering, etc.) Once these skills and concepts are grasped I may expose them to the design limitations imposed by HTML and the techniques used to build web pages around those limitations. Then emphasizing the importance of designing for the audience, providing common and familiar means of quick navigation and the need for carefully planned organization of content. I expect to direct them to online resources through the lessons and teach them how to find the information they need rather then memorize it. As the lesson plan is adjustable it helps maintain an appropriate pace and allows time to focus on areas of interests to prevent boredom and encourage absorption of the material. I am encouraging the staff to lean towards the poles of design and physical construction of a web site forming a more traditional web design team that will be capable of achieving ELDI's goals. I expect that by the time the consulting period has ended the lessons will have produced at least a template for redesigning ELDI's web presence. I doubt that the Secondary goals can be met on little more then a surface level in the available time so I will make a point to provide links to resource materials that will allow the staff to pursue secondary goals on their own.

Outcomes

Evidence of Expanded Capacity

Technical Environment
ELDI can now update their web site in 1-3 minutes whereas it used to take them 15 – 30 minutes.

The staff recognizes the limitations to the image sizes they should put on the web sites and the techniques they must use to over come, or work around those limitations. They acquired Adobe PhotoShop and familiarized themselves with a variety of practical image manipulation tasks commonly used across platforms. They convert images from one image format to another whenever necessary. Previously image format conversion options were very limited.

Organization
The staff plans to expand the web site far beyond the original design. They are more familiar with what potential ELDI's web presence has and what they are capable of producing. Hence they express a number of ideas they would like to implement. More importantly they discuss how it should seamlessly integrate into what they are currently working on. For example they added a regular announcement page that they wish update every three days. They plan to put their web address on their published materials for reference to events, programs, and news relating to East Liberty. Furthermore they hope that they will soon be able to refer to their web site as a means of allowing contacts more detailed information on subjects that they can conduct business more efficiently.

Evidence of Sustainability

Often when Niladri asks questions they are now phrased as a request for confirmation of what he believes the answer to be and not a dependence on me to provide him with the answer to his question.

Twice now he has pointed out where I have made a mistake, or forgotten syntax and he reminds me of the procedure or syntax I have taught him to make the correction.

When someone asks me how to fix a hardware problem, they first bring me the correct manual before asking me how to fix it, or what configuration questions they have.

Whitney is picking up on the design concepts for web sites and hence is making wise suggestions to how the site should be modified and organized. (Visually) Whitney is also making suggestions for how ELDI's home page could provide useful reference and statistical information to help them attract business to East Liberty. He is planning a section to help individuals locate available homes or business property with the use of pictures of the property, and an image map covering a map of East Liberty to indicate available locations.

Whitney and Niladri are working together to decide what and how new content should be provided on ELDI's web site. They are beginning to form the typical office model of web developers consisting of a content/design developer and the technical/design developer working hand in hand to produce a final product they both feel is aesthetic, functional, and user friendly.

Recommendations

ELDI's goals primarily reflect a need to distribute textual and graphical information consisting of an HTML or PDF format. It is my assessment that they do not require the services of a programmer, or third party software beyond what they currently own to produce such documents. Should ELDI's needs grow to require skills that they have not been taught during this consulting period they may wish to consider obtaining professional assistance. However, I believe I have provided the foundation required to allow ELDI to explore the areas of Dynamic HTML (DHTML), and simple JavaScript should their future plans benefit from more advanced web design elements. Enclosed in the final report are lists of various online resources that should keep them at a sufficiently operational level indefinitely as long as ELDI's needs remain at the level of Simple JavaScript, DHTML, and HTML.

I would not suggest ELDI invest in a web master (a single head person responsible for the construction and maintenance of a web presence) or design consulting service unless time available to design and maintain the web presence becomes an issue. I would highly recommend that they exploit Whitney and Niladri for the majority of their web needs. By not adding to the staff or going through a consultant they can save a great deal of money on staffing and design costs. Also by using current staff ELDI will have the benefit of immediate access to the web site for quick updates or mass distribution files without the time constraints or additional charges associated with consultants or even part time web masters. In addition, I believe that the intimate knowledge of what is required and expected of ELDI's web presence is better understood by these staff members and hence it is best that these staff members maintain the web site themselves rather then defer creative control and responsibility to a third party.

There are two parts to web development. The design, and the physical construction. I have directed Niladri to the physical construction aspect, and encouraged Whitney to the design aspect of web development. I recommend they work together exploring both practical ideas for the web site and experiment with new, impractical ideas, to help them sharpen their skills in ways that will prevent them from limiting what is achievable with ELDI's web presence.

I would encourage Niladri to keep his skills fresh and lighten his web maintenance load by teaching Whitney all he has learned about web design and using Netscape Composer. They should format his notes into a quick reference manual that conveniently provides all of the information they need to maintain and build ELDI's web presence.

I suggest Whitney and Niladri take responsibility for making updates, and correcting typos, broken links, etc. professionalism keeps users returning to the site and gains respect for the organization. This becomes an important issue as the site gains publicity.

I recommend Niladri take a leading role in the sites physical construction. He should use the editor to help him learn and recognize HTML tags and understand how other organizations have built their web sites. I suggest he practices implementing more complex designs that require tables, frames, images, and image maps so that design techniques that exploit them become second nature. He should spend as much time as available learning Adobe PhotoShop so that he may understand how many designs are implemented through the illusions of background images and transparent images.

I believe that Whitney should focus on content development and visual design. Web sites are useful to users only when the site provides the information they want in a quick and intuitive

manner. Even when a site is well-organized and content rich, media research (and common knowledge) has shown that web sites that are not visually appealing hold the average user's focus for 1-3 minutes. If ELDI wants to attract business, consumers, investors, educators, or any audience to their web site it is important visual design and content development are given careful thought as to the intended audience and what that audience expects from ELDI's web site. I suggest that Whitney studies at least one multimedia design book or online resource devoted to web development and dedicate at least one hour of web surfing a day to see examples of good and bad web designs. This will help him to insure that ELDI's web site serves its functional requirements and accurately represents the organization and its mission in a visually appealing framework.

I recommend that all text documents currently distributed by ELDI be made available in an online format. I also believe that as the site grows, other material that is distributed which relates to specific sections of the web site should promote those sections. Thus encouraging users to visit the site and to insure the most up to date information regarding the subject may always be available to the audience.

I highly recommend that ELDI maintain the current structure of the web site (at least until all of the planned sections have content) and use the current pages as a template to maintain consistency across sections and aid in faster completion of the remaining sections currently under development.

I highly recommend that ELDI keep accurate record of each change they make regarding linking and frame creation that effect the organizational structure of the web site. This record insures that anyone with web design skill can quickly pick up where another has left off in the event the site's maintenance must be handed over to a new individual. This also will help correct mistakes and make planning new sections of the web site simpler because a visual picture of the whole site will be more tangible and accessible then tracing the links by hand.

I highly recommend that ELDI keep a regular backup of the web site and an image archive of East Liberty to help build on and add to the current web site.

I recommend that the web site include pictures and bios of the staff and a board member so that contact information is available. I also believe a more humanistic feel to the site would appeal to community members who may access the site for information.

I suggest the entire staff exploit the list of online resources I have provided. There are web sites catered to users with low and high levels of computer experience. Much of it is educational, and some of it is purely useful to save time. I believe there is material beneficial to everyone at ELDI, for some of the resources help you to find what ever it is you may be looking for as well as provide you access to free software and online services.

Online Resources

These are search engines that are commonly used to locate things of interest on the web:

www.webcrawler.com
Quick and simple search engine with some major topics and newly available directory services every month or so.
(Use this for find web common web sites.)

www.metacrawler.com
Complex search engine that works with a list of the most popular search engines.
(Use this for really hard to find topics.)

www.lycos.com
Advance features of this search engine let you search for media types or data archives.
(Use this to find images, sounds, free ftp sites, or newsgroups.)

These are development and instructional web sites:

http://werbach.com/barebones/barebone.html   /   http://werbach.com/barebones/

This document is designed to serve a particular niche. It is intended as a concise "cheat sheet"
that you can use to look up the correct forms of tags as you are creating Web pages.

(Use this when your forget how to write something in html. Or if you want to learn about
something with a simple guide.)

http://www.ncsa.uiuc.edu/General/Internet/WWW/HTMLPrimer.html

This is the beginner's guide to html. It is a good resource to start with.

http://www.w3.org

This is the World Wide Web Consortium web site. They establish all things official
regarding standards for technology and formatting web content.
(This has good general information to know about browser compatibility, and supported
design features or techniques.

http://www.w3.org/Provider/Style/

This World Wide Consortium style guide

(Use this to help you design how you web site should look, and function.)

http://info.med.yale.edu/caim/manual/contents.html

(This site has more design advise and references to books that focus on web design.)

http://home.netscape.com/

This is Netscape's home page; here you can find lots of software, web links, and tutorials for
web developers.

http://www.builder.com

Advance web development resources.

http://developer.netscape.com/index.html

Netscape's developer's resource and support page.

http://home.cnet.com/

This is CNET's home page.

This is a general information resource from the most basic questions to the most advanced concepts in computer science. It mirrors information provided on TV shows produced by CNET and even focuses its language with low-tech terms the novice user can understand. It also defines high tech terminology and explains complex technical concepts.

Data Resources

The following are a few locations to get free software, shareware, or trial demos:

www.download.com

www.sharewae.com

http://members.tripod.com/~sathisk/software.html

http://tudogs.com/

http://www.phoenixgate.com/software.html

(When you want to try out software you may be interested in buying go to one of these sites {or the company's home page} and download a trial or shareware version before you buy it. This way you will discover if it is worth your money. Also if you just want to exploit a few small features of an application that would save you time. Don't buy an expensive program just check out those sites and see if there is free software you can use instead.)

The following are all locations to get professional software web design and graphics.

http://www.adobe.com/
(Come here for Graphics and desktop publishing applications.

http://www.macromedia.com/

(Come here for multimedia and web design programs.)

Miscellaneous resources provided obtained in class that I thought you could use:

http://www.microsoft.com/office/

This page contains news and information about the Microsoft Office suite of products, straight from the source. Visit this page to find out the latest updates, bug fixes, new releases, special offers, and more.

http://www.coyotecom.com/tips.html

This has a lot of tips for people in non-profit organizations who are just getting started on the Internet. Learn how to raise funds on the Internet, or how to set up a database, where to look for the information you need, etc.

http://www.idealist.org/

http://www.idealist.org/newsletter.html

A huge web site, with a database of over 16,000 non-profit organizations!

They have advice, information, news, examples, you name it. Find tips on fundraising, finding other non-profit ors, technical consultation, volunteerism.

Books (can be purchased at http://www.amazon.com)

Office 97 for Dummies

Networking for Dummies

Windows 95 for Dummies

Outlook 98 for Windows for Dummies

Any relevant O'Reilly book with a drawing of an Animal on the front.