Library Web Ecology
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To my teachers and mentors who encouraged me to explore the possibilities
List of figures

1.1 Organizational chart 9
2.1 Example introductory slides 28
2.2 Example of a website inventory database 37
2.3 Strategic plan worksheet 48
2.4 Model for basic assessment reporting 60
2.5 A basic planning website 64
3.1 Library logo developed by the university 86
3.2 University-designed library home page template 87
3.3 University-designed major library web pages template 87
3.4 University-designed general library template 88
3.5 Example of library home page 1 89
3.6 Example of library major web page template 90
3.7 Example of library general web page template 90
3.8 Logo 1 91
3.9 Logo 2 92
3.10 Comparing Logo 1 and Logo 2 93
3.11 Example of library-created home page 1 94
3.12 Example of library-created home page 2 95
3.13 Guidebook checklist 109
4.1 Closing the loop 137
5.1 Technologies... New? A list of when current trends in technology were first developed 141
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Introduction: can the library and the web integrate?

Google cannot and will not be replacing libraries because both can co-exist with their diverse functionalities catching the attention of users at different occasions…The real situation is that the libraries have very little control over their suppliers whereas their consumers have too much control over them.

V.K.J. Jeevan¹

The web is a place where there are no librarians walking the halls for people to ask for help and where there are few constant landmarks for people to follow their pursuit of information and leisure easily. Although the internet has opened up the gateway to information it has built many barriers to that information. Librarians have so many tools available to develop dynamic websites that many are now facing the task of deciding how to integrate these new technologies into an established website. The trouble tends to be that websites do not easily fit into newly designed formats. There is so much content already developed, it would take an enormous amount of work to redesign library websites. With new ways of articulating information and the competition of search engines, library staff have an opportunity to reconsider their library’s role on the internet. Librarians are at a crossroads. They created websites using the existing technology that was available. Now they need to update these websites and there are lots of new technologies from which to choose. Migrating the library’s website into new technologies can cause many problems both technically and visually. Many library websites are becoming increasingly hard to navigate as more and more tools and links are competing for users’ attention. Librarians now have the opportunity to change the way that they use web tools in order to improve the library’s service to the library community. But first, they need to determine the purpose behind the library’s website.

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Libraries are friendly places built to serve their community's information retrieval needs. This service, and the experience librarians bring to users in their pursuit of research, is what makes a library special. *Library Web Ecology* builds on this idea, by taking what is special about the library service and integrating it with online tools. Personal services and research experiences are something that other services on the web cannot provide. Library community members have an opinion of what the library means to them in the physical world. Perhaps it is time to establish the online version of the library as more than just another point to access information. Other websites on the web can give community members information. The library needs to develop a vision of what services only they can accomplish on the web. In my opinion, librarians can create a custom-built online environment for their community. Rather than the library following the concept of ‘go where the users are,’ the library can now use new technologies to create an online community built for their users. David Lee King wrote in his book *Designing the Digital Experience*, ‘Visitors to an organization’s digital space don’t want to think about interacting with its website. They want to – quickly and easily – make a purchase, find information, or do research.’ The challenge for librarians is to connect community members to important information by creating a research experience through the library environment, and yet do so in a way that makes the technology easy to use. This is how libraries can compete with other similar online services.

Before a library can tackle creating an experience on the website, they need to know two things. The first is what content or service is the most important for the library to present to the community member and second is what tools to utilize. What the library should promote on its website is best determined through assessments, surveys, and focus groups. Once this is determined, then the library needs to create a plan to implement it.

The approach to choosing the best technology is not as straightforward. New technologies need first to be tried out in order to figure out how they operate and what they offer. Librarians have spent a lot of time at this stage. Once you understand the possibilities of a technology, the next stage is to reevaluate what features you want from that technology, to meet your needs. At this stage, the technology is chosen in order to achieve established goals; those goals are not limited according to the technology available. This is similar to when digital cameras first became available. At first, users were limited by the constraints of the features they found on the camera. These included the memory size of the photo card, the resolution, and the lifespan of the
battery. As more choices in digital cameras became available, users had to choose the best device that they could afford. Once they became familiar with the digital camera that they had purchased, users could make an informed decision about what features they preferred and which features they did not need. It is the second digital camera that someone purchases which meets their needs adequately.

The first web pages in libraries were built using simple HTML. As other coding options surfaced and more librarians were trained to develop web pages, librarians began to understand what they wanted to be able to do with technologies (for example, create research guides and tutorials). Now that librarians have identified certain needs (for example, chat services), they can determine the best technologies to fulfill that need (for example, Meebo, Trillion, or LibraryH3Ip).

The web has developed well beyond the original HTML coding of web pages. The number of new tools is overwhelming. Now is the time for librarians to redefine what they are trying to accomplish with their library's website. They can let go of the past restrictive technologies and organization of content in favor of technologies that meet the needs of the library. In order to make this change in library web design successfully, a designated web coordinator is necessary.

Web coordinators are the library directors of library websites. Their charge is to translate parts of the physical library's essence into a web format, and add appropriate technological features, to enhance the library's service to their community members. The web development process contains many steps in order to make the website usable and sustainable, and a hospitable environment for the community. Each chapter of this book describes one part of that process. The web coordinator may not be the person in charge of each part, so the 'you' addressed can also be interpreted as 'the person in charge.' However, it is helpful for the web coordinator to understand each part of the web development process in order to assign appropriate people to work on each part.

In this book you will be given the tools to help you establish a more successful website to meet the needs of your library and its community. Chapter 1 starts with the role of the web coordinator and how such a position fits into the library structure. The chapter offers suggestions on how to establish a positive relationship among the different library departments, in order to create a library culture surrounding the website. Chapter 2 focuses on establishing goals for the website in the form of a strategic plan. The chapter goes through the entire planning process to help articulate the vision of the website, without reference to a particular
technology. Chapter 3 explains how the website's goals can be translated into a visual format, by developing a website identity. Chapter 4 addresses how to make the website sustainable through meeting standards, addressing the effects of changes made, and by closing the loop on the design process. Chapter 5 discusses how to discover and evaluate different technologies to best enhance the mission of the website.

What to take from reading this book

A complete redesign of the library's website might not be plausible for your library. If this is the case, then the most important idea to take from this book is that you can redefine what you want to accomplish for your library on the web. By determining the goals of your library's website you will start down the path of rethinking the purpose of the website, and eventually this will help you and your colleagues implement changes. Then the web coordinator can focus on the tune-ups and usability testing (see Chapter 4) while library staff work toward a new vision for the website (see Chapter 2) and possibly a new design (see Chapter 3). The library's website does not need to be completely redesigned in order to achieve 'success.' A successful website in this book is considered to be one that is sustainable and usable. Therefore, if you can find a way to implement parts of this book within your current design in order to achieve a higher level of sustainability and usability, then consider yourself successful. As for the second charge of this book, to create an environment for library community members, the first step is for library staff to believe that such a website could exist. It will take time to get to that level as it is more important to achieve sustainability and usability, but I encourage you to dream big.

Who is this book for?

This book was designed as a guide for all librarians in charge of the library's website. Any staff working in different types of libraries can also benefit from this book, as many libraries have websites. It focuses on larger library organizations, because larger libraries tend to have more hoops to jump through than smaller, more specialized libraries.
The overall themes of this book should help you improve the function of your library’s website. It can also be used as a textbook for library science classes to help prepare students for the complexities surrounding library web design. Even if the students will not work heavily with web design, chances are the library’s website will still affect them in their work.

A note about the content of this book

All of the websites listed in this book were current in March 2009. If a link is no longer available at the time of reading this book, or the web pages do not look as described, try searching the Wayback Machine (http://www.archive.org/index.php) to view the websites as they looked during March 2009.

This book uses a fictional library’s website in a fictional university as a model to think through the process of each section of this book. This library is in a university setting as many libraries have umbrella organizations that they must consider when making changes to their website. However, the thought process to complete each stage of the website development plan applies to any type of library.

Notes

The library culture

No matter how hard you work or how well you may think you have designed a Web site, if you don’t involve the people, they may not like it.

Haiwang Yuan

Researchers no longer use the library as a gateway to information, and no longer feel a significant dependence on the library in their research process. Although the library does play essential roles in this process, activities like paying for the resources used are largely invisible.

Ross Housewright and Roger Schonfeld

Introduction

The role of the library is to support members of the library community in their endeavors to retrieve information. Library websites are designed to support that mission by hosting the online catalog, electronic resources, and any other information the community members might want to access. What began as simple HTML web pages has now grown into a large multimedia-filled communication space, which in some cases is bursting with information. Libraries have the opportunity to embed new social technologies in the website in an attempt to improve customer service. It is highly likely that new social networking technologies would be useful for libraries to implement, but let us take a step back and ask the most important question: does the library’s website improve the library community’s ability to retrieve information right now? If it does, then great! Let us see if there is a need to add anything else. If not, then will adding new technologies improve the website, or merely mask underlying problems?

The role of the web coordinator is to be the guide, director, leader, project manager, innovator, and liaison between the different departments
within the library. The web coordinator oversees the content and technology of the library’s website and concentrates on what meets the needs of the website users. This is a complex role and requires a very strong and grounded individual with a lot of knowledge. How the web coordinator fits into the library is complicated.

The role of the coordinator may need to be established or someone within the library will need to be designated as the person with whom other staff make contact on matters related to the website. Once the coordinator is determined, the next step for the coordinator is to establish the approach towards organizational change of the website and the library staff’s relationship to the website. How much change should the web coordinator implement within the library and the website at one time? With change comes the possibility of barriers. How can the web coordinator combat resistance to change? Finally, the web coordinator needs to develop ways to reward and motivate the library through change. These topics will be covered here because this book is about redefining the library website. It is about the need to change: change the culture of the library, change the design of the website and change the library’s approach to technology. The introduction of change is not because the current system is necessarily bad, but because new technologies have given the library the opportunity to reevaluate the website’s organization, design, and purpose to see if those technologies can enhance the website experience.

Rearranging the website jigsaw puzzle: the job of the web coordinator

Managing the website and the library staff through redefining the purpose of the website will take a lot of preparation and skill. Such a job is more than a web or systems librarian’s job description and skill set. A web librarian or systems librarian may be in charge of maintaining the website, updating web pages, and adhering to certain standards, but they tend not to be in charge of the content of the website. The content is monitored by library departments, oftentimes without disclosing the direction of content to other departments. A web coordinator is someone who works with the systems staff, the administration, and the rest of the library to create a website that is cohesive in structure and content. The web coordinator could also be called a web services librarian, as merging content with technologies, to develop the library’s online services, is
a key responsibility of someone in this position. In order for the library’s website to become user-centered, the content in the entire website needs to be reevaluated. Before talking further about what needs to be changed to the library’s website, let us discuss the role of the web coordinator and how such a position may affect the organizational structure of the other library roles in the web development process.

Redefining the roles within the library

The web coordinator is the director of the library website. The web coordinator will need to interact with many different departments within the library, and with the library community, in order to accomplish the tasks laid out in this book. The different groups of people that the web coordinator will work with make up the stakeholders of the library website: the administration, the systems staff, the web page creators, the web team, a website strategic plan task force, and the library community (see Figure 1.1).

Figure 1.1 Organizational chart
Each group can contribute to the development and maintenance of the website’s integrity to make it sustainable and relevant, and each group has its own area of expertise, which the web coordinator can draw on to make the best website possible. For example, the web page creators may understand the content that users need far better than the systems staff; however, the systems staff have a better understanding of how to structure the content of the website to make it useful. The web coordinator can communicate with both groups in order to determine the best way to present content to the library community. Are long scrolling pages or multiple web pages better for longer content? Is a web page, podcast, or vodcast the best presentation format for the content? Does the structure of the website template interfere with the type of content needed in a certain section? All of these questions, and more, are best answered by involving both the systems staff and the web page creators. By understanding their expertise levels, their needs, and their worries about the website, the web coordinator will have a better understanding of how supportive each group will be for reconceptualizing the library’s website.

**The web coordinator**

The role of the web coordinator has been described in this chapter as that of guide, director, leader, project manager, innovator, and liaison between the different departments within the library to develop and implement a cohesive website development plan. In a smaller library, these tasks will more than likely fall on the director of the library. In a departmental library (corporate, school, or museum) these tasks more than likely will be the job of the head librarian. In a large library or library system, this position may already exist under a different title or could be created within the website managing department. If such a position does not exist, or cannot be created, then the library director should appoint the appropriate person to oversee the development of the website (both technically and in content).

The tasks of the web coordinator are described throughout the rest of this book. The coordinator will guide the library staff through the different stages of the web development process, which include developing a vision for the website, implementing that vision, evaluating the website, and testing new technologies that might be included in the website. The web coordinator is in essence a project manager and therefore must have or must acquire good management skills.
The administration

The role of the library administration is to communicate the key goals of the library to and with the web coordinator. Before attempting to change significant parts of the website, it is important to gain the support of the administration. In return, the administration should communicate how much time, money, and personnel can be allocated to such a change. If there are any library or umbrella organizational standards that the website must adhere to, then the administration needs to articulate those to the web coordinator. In return, the web coordinator needs to create a project proposal for the administration, which includes the planned changes, how each change affects the website and the library at large, and how many resources (personnel, time, and money) the project will require.

The administration may include the director, dean, assistant and associate directors, development personnel, communications officers, and assessment personnel. Each person is a valuable resource when it comes to managing and representing the library staff and the goals of the library. By utilizing these many resources, the web coordinator can gain more confidence in his or her position within the library.

The systems staff

The systems staff play an essential role in website development. They are in charge of maintaining the hardware and software of all of the machines designed for web page creation and distribution to the web. They are the ones who understand internet standards, and the organization of the website’s infrastructure, and can troubleshoot technical issues. Of all the departments of the library, any change to the structure of the website will most greatly affect the systems department. Therefore, the web coordinator must continuously communicate with the staff in that department.

The systems staff should approve proposed technology changes before they are proposed to the rest of the library staff. The systems staff will determine if a specific tool can communicate with the other technologies within the website and see if they feel comfortable supporting any upgrades or problems that may occur if the technology is implemented. If standards change or an upgrade in hardware or software is planned by the systems staff, then it is their duty to let the web coordinator know, in case the changes will affect the work of the rest of the library staff or library community. For example, if the library resides within a larger organization and the larger organization changes any local standards
(i.e., has a new website template or change in color), then the systems staff and the web coordinator need to suggest a strategy of how to implement the changes.

**The web page creators**

The web page creators are in charge of the web page content (such as subject guides, policies, and other matters). The head of the particular department or unit might monitor the quality of the content provided, but it is the job of the web coordinator to make sure that the content adheres to the goals of the website and that it is not duplicated elsewhere on the website. The web page creators should discuss their work with the web coordinator in order to gain advice on the best methods of articulating the information.

**The web team**

The web team is a committee of individuals representing the stakeholders of the library’s website. Many of the groups outlined in this section will have representation on the web team. The role of the web team is to discuss any developments that come up concerning the library’s website. The web coordinator more than likely will be the head of this committee. The good thing about having a web team is that the web coordinator can communicate with and educate many people at a time. In return, the web team members can relay the information back to their respective departments, thus reducing potential extra work by the web coordinator. There is plenty of other work to fill the web coordinator’s time.

The web team should comprise a balanced group of people who represent the different departments of the library and the different user groups of the website. Library staff who work the reference desk regularly are as important as the systems staff who support the technology. A new web coordinator may want to survey the web team members to determine what skill sets, both technically and in content, each team member can contribute to the whole. It also helps for the coordinator to know projects that each team member and department are working on to make sure that their efforts are not duplicated, are following the goals of the website, and are monitored in the future for web maintenance purposes. The web team can also work on certain elements of updating the website through task forces or sub-committees. One sub-committee that might be very useful is an assessment sub-committee, to test different parts of the website periodically.
The website strategic plan task force

The strategic plan task force may already exist in the library if the library has created its own strategic plan in the past. The purpose of a website strategic plan task force is to create the vision and goals of the website. The vision for the website can be as complex as making the vision for the entire library. Even though the website strategic plan task force can base its plan on the library’s strategic plan, the implementation of the goals will change because of the medium. Some library goals will translate easily into a website (like providing access to information) while others may not translate well (like reference and instructional librarians giving individual attention to library users). The website medium also allows for certain goals to be accomplished that the physical library cannot attain (like supporting distance learners).

The task force is essential to help develop a defined website purpose. The members of the task force can be drawn from the web team as a sub-committee, or solicited from the library as a whole. Either way, the stakeholders for the website need to be involved in order to gain their support in developing the website. The web coordinator can lead the task force toward the development of goals and in the evaluation of the website to verify if those goals are being attained.

Other web organizations within a larger institution

If the library falls within a larger umbrella organization or institution, there will probably be a web presence for that larger institution. The web coordinator should be in contact with any web organizations within the larger institution to make sure that the library is aware of any standards, mandates, or technical recommendations that exist at the institutional level. Possible organizations for the web coordinator to be aware of are an institution-wide web team, a communications team, and/or an institution-wide systems committee.

The library community

The library community can be defined as the users, patrons, and people who use the library and website. The library community is the most important group within the website stakeholders, as the whole purpose behind developing a library’s website is to meet the needs of the library