

CHAPTER 7 PRESENTING YOUR DIGITAL PROJECT

Web sites open new venues for making cultural resources and information available. They have the potential to undo existing limitations of location, hours, and even the fragility of documents and artifacts. Materials can be open to audiences around the world twenty-four hours a day. These opportunities also bring responsibilities and challenges.

With more access, there is less control over who is using the materials or how they are used, "The one with control is not the one with the message but the one with the mouse," said John Gehl and Suzanne Douglas in an article for the now defunct electronic magazine *The World and I*. This can mean increased reference questions and developing new ways of interacting with users.

Web page creators don't know if their readers are more expert in their subject than themselves. They don't know if their viewers are Asian, African American, Scots-Irish, Hispanic, Native American, German, rich, poor, deaf, blind, physically impaired, man, or woman, child or adult. This democratization of access suggested by Gehl and Douglass is seen in the now famous cartoon by Peter Steiner for the *New Yorker*, "On the Internet, Nobody Knows You're a Dog"¹ Still there are some instances when web pages need to provide access for specific audiences and for special audience needs and in all instances it is important to provide good navigation and clear context.

If web pages are to be useful they need to be read. Web designers Jakob Nielson and Donald Norman recognized that "the Internet follows a kind of Sheer Design Darwinism: Survival of the easiest" which means "usability is not a luxury on the internet; it's essential to survival." To assure that the pages are read, it is now common to find the most important information "front-loaded." This means that the primary content is placed in an abstract or overview at the beginning of the document so the reader may make a quick judgment whether to read further. The intent of this "front loading" goes beyond just the quick browse, it is also used by automated search agents (including spiders and search engines) when they roam the Internet in search of specific content. Whether the need is the human interface or the technological convenience, the Web site must have usability. This chapter of the *Guidelines* addresses the issue of audience, access for the disabled, web design, software, and interoperability. A final section discusses the choice and implementation of collection management systems as they apply to the presentation of digital projects.

Audience - "The one with the mouse..."

Who is the User?

While it is true that the Internet provides an anonymous status for users, web page creators must design for some audience. There are a series of questions that will help you to define

¹ Available at: <http://www.unc.edu/depts/jomc/academics/dri/idog.html>

your audience. Reflecting on decisions made during **Planning** will help you when you are ready to look at presenting your digital project on the web.

- Who is expected to use the Web site?
- How is the user expected to use the information?
- What information is expected to be used frequently?
- Are there different age-ranges in the audience that need to be accommodated?
- What is the educational range of the user?
- Do any of your users have disabilities? Have you accommodated them?

The designer and developers of web pages need to be particularly vigilant in addressing the needs of a variety of users from the first grader to the older researcher. The school-age user will have needs that may not be consistent with the adult researcher; the graduate student may have research requirements not shared by the lawyer or businessman. How can the needs of these populations and others be met through one web site? This is just one question that local project managers will wish to ask when trying to decide how best to present their digital images to the public.

Access for the disabled

People with disabilities are perhaps the single segment of society with the most to gain from the new technologies of the electronic age. Yet they have among the lowest rates of use of these technologies. As a result, the potential benefits of computers and the Internet to the disability community are a long way from being realized."²

In planning web sites, we need to keep in mind the kinds of disabilities that can affect web site access. These include color blindness, repetitive stress injury, deafness, tinnitus, blindness, memory impairments, cognitive disabilities, and seizure disorders. According to the 2000 U.S. Census, 21.1% of North Carolina's population over five years old were identified as having some kind of disability.³ Nationwide, disabled people who own computers comprise only one-quarter of the total disabled population. The digital divide is real for the disabled; it is a yawning chasm.

Key Tips for Accessibility

- Describe all graphics using simple ALT text.
- Don't use columns.
- Keep link text brief.
- Keep navigation simple. Don't jump around.
- Provide alternatives to all controls and applets.
- Make use of the "noframes" tag to direct user to no-frame pages.
- If tables are used, provide alternate pages with no tables.
- Avoid reliance only on style sheets.
- Provide closed captions or transcripts for all audio.
- Provide ASCII and/or HTML alternatives for proprietary formats.

² Stephen Kaye, *Computer and Internet Use Among People with Disabilities*, 3/1/2000.

³ *Health and Disability in North Carolina*, 2003, available at: <http://www.schs.state.nc.us/SCHS/pdf/HDReport.pdf>. See also, The 2000 Census report at <http://www.census.gov/population/cen2000/phc-t32/tab01-NC.pdf> for information about North Carolina's disability statistics.

- Avoid scrolling marquees.
- Provide titles for objects.
- Consider size and readability of fonts for various age groups.

For expanded Web guidelines see the W3C Web Content Accessibility Guidelines 1.0 at <http://www.w3.org/TR/WAI-WEBCONTENT/>.

The Web carries great promise for the disabled; but it must become a more accessible medium, if they are to fully benefit from that promise. Project managers are encouraged to make special efforts to make their materials as accessible as possible to the disabled. There are a variety of resources available to help you make this possible.

Unified Web Site Accessibility Guidelines
(<http://www.w3.org/WAI/GL/central.htm>)

Established by the W3C (The World Wide Web Consortium), the mission of this site is "... to lead the Web to its full potential. It includes promoting a high degree of usability for people with disabilities. The Web Accessibility Initiative (WAI), in coordination with organizations around the world, is pursuing accessibility of the Web through five primary areas of work: technology, guidelines, tools, education & outreach, and research & development." This Web page is currently the most definitive site for clear guidance on making Web pages accessible.

Bobby (<http://bobby.watchfire.com/bobby/html/en/index.jsp>)

A free service that assists Web authors in providing approve sites for users with disabilities. Service will identify and repair significant barriers to access by individuals with disabilities. Sites that display a "Bobby Approved" icon are ADA compliant.

Viewable With Any Browser (<http://www.anybrowser.org/campaign/>)

A guide to technical standards and programs that assure pages will be able to be viewed by any browser.

Web Page Design

When designing a web page, you do not have to begin from scratch. There are many good examples available for Web page design and once you have made initial design decisions those examples will help refine your ideas. As you gather design ideas, consider your potential audiences, what kinds of navigation you want to use, your site structure (that is how the pages relate to one another), and ways of providing context for your materials. Context is particularly important for primary sources on the web. At a minimum, primary sources should be identified with a title/description, date, and creator.

Some key tips follow:

Use Design Grids

The design grid you chose need not follow a set fashion or technology, but should follow the best practices of well established sites which have similar content. There are many good examples both on the Web and available in books. For example, the Yale *Web Style Guide* ([http://www.webstyleguide.com/index.html/?/](http://www.webstyleguide.com/index.html?/)) has a series of design grids

that are excellent models. Also the software *FrontPage* has a series of templates or design grids from which to choose.

Browsers are Important!

You can't know what your viewers are using for Web browsers. Some viewers will use Netscape, others Microsoft Explorer. Some viewers will be using a Macintosh computer and others a PC. Color is particularly browser sensitive. What looks good on your machine may be grotesque on another machine if the color is not "browser safe" (<http://www.primeshop.com/html/216colrs.htm>). When planning a Web design, be sure to create something that is "browser neutral": a page that will look good when viewed by most any browser.

Viewers Are Impatient!

Don't tax your viewer's patience with large, slow-loading images. The average time a viewer will wait for a page to load is less than one minute. If you want your pages to be viewed, keep your image size small, preferably around 72 dpi (see **Digital Production**). JPEG images are generally the favored image type for the Web. They load progressively and generally keep the viewer's attention until the loading is complete.

Use Design "Systems"

For small sites (e.g., a handful of Web pages), it makes sense to design and code pages individually. For anything bigger than that, managers should be thinking about building a design system (using a template or database mechanism) to build their Web site. This makes it simpler to apply global changes and migrate the underlying data independent of the Web site's design and layout. In addition, most institutions will want their sites to grow gracefully, and it is worth the time upfront to build sites systematically, as this will save time when changes or additions are needed later.

Design for Different User Pathways

Recognize that users won't necessarily follow the paths that you expect them to on your site. Design it so that users will get results (or at least an explanation of how best to get results) no matter which path they take. Make the default view the one you think will be most broadly useful (since most people will use the default), but allow the user the flexibility to meet their own needs, using your resources in more complex (or simpler) ways. Provide many different approaches to your resources and allow users to choose which best fits their needs. Functionality such as browsing, search, results grouping and sorting and so on are all viable ways to achieve different pathways.

Design for Printing

Many users will want to print pages from your site. Design your site to make printing will be easy and efficient. Provide contextual information (name, address, URL of your institution or project) on every Web page so that printouts will display this information.

Links to Homepage

Always keep in mind that users can and will arrive at your site at almost any point via external links or search engines. You need to help those users get to your homepage. Always provide contextual information and links to homepages on every page of the site.

Software

Professional Web designers and teachers concur that there is no software yet that will substitute for learning a little basic HTML. It is relatively easy to learn and worth the effort. There are a number of great introductory books available, including *HTML For Dummies*. Two excellent online resources for web designers, from beginners to the most advanced, are the WebMonkey site (<http://webmonkey.com/>) and the W3Schools HTML Tutorial (<http://www.w3schools.com/html/default.asp>).

There are several authoring environments (Web page creating software) available. The clear favorite for functionality, integration of other applications (e.g. flash and fireworks), site management tools, generation of good HTML code, and standards compliance among the pros, teachers, and even WebMonkey is Macromedia's Dreamweaver. Dreamweaver is the gold standard authoring environment and so can be occasionally overwhelming, but it comes with respectable documentation, including texts of popular and readable O'Reilly books on HTML.

The Netscape browser comes with a fairly basic but serviceable page authoring environment called Composer. While some Web design professionals would like more functionality and better site management tools, they seem to agree that Composer is a fine way to get a page or two up on a server quickly or make some minor changes on existing pages. Netscape is available for all versions of Windows, Macintosh, and Linux. The latest version of Netscape is available on the Web (<http://channels.netscape.com/ns/browsers/default.jsp>).

Interoperability Issues

Interoperability refers to the ability of different systems to communicate with one another. One example of interoperability is the ISO standard ISO 23950, or better known as ANSI Z39.50, or the *Profile for Access to Digital Collections* (<http://www.loc.gov/z3950/agency/profiles/collections.html>). This standard defines the way two computers share bibliographic data, images, and multimedia data. Developed in 1995, the Z39.50 standard is based on client-server architecture and does not depend on individual systems. It is now the standard for the Internet and has grown to include a whole range of Z39.50 profiles, among them the *CIMI Profile: Z39.50 Application Profile for Cultural Heritage Information* (http://www.cimi.org/public_docs/HarmonizedProfile/HarmonProfile1.htm).

Collection Management Systems

Collection management systems have been used by museums for many years. These systems provide a structured way to input metadata, often include a component for digital images, and more recently include a publishing component that allows you to present materials online. This has developed into a popular choice for digitization projects, including presentation of digital collections, metadata, and accompanying images. There are a wide variety of collection management systems available with scalable functionality and price tags. Below are some questions you should ask when considering the acquisition of a collection management system:

System considerations:

- 1) What is the platform the system needs in order to operate? Do you have that platform (including any additional plug-ins) available to you?
- 2) How easy is it to facilitate online publication of the collection management system?
- 3) Does the system have a customizable functionality, including search, retrieval, and browse capabilities? Are these functions written in a script that you or someone on your staff can easily manipulate?
- 4) Does the system comply with national or local standards? If not, can it be customized to encourage standards compliance?
- 5) Does the system facilitate metadata importation/exportation?
- 6) Does the system provide free-text searching (for textual documents)? Cross-collection searching?
- 7) Does the system provide a variety of outputs (such as pdf versioning) that may be desired by your audience?
- 8) Does the system come with adequate accompanying document for your implementation?
- 9) Are there others in the NC ECHO community or nationally who are using the system for you to consult?

Workflow considerations:

- 1) Does the system have a customizable metadata and image input to facilitate your individualized workflow?
- 2) Does the system have controlled vocabulary capabilities? How flexible is that functionality?
- 3) Does the system include quality control features to facilitate that part of the process?
- 4) Does the system have multiple user capability for simultaneous data/image input?
- 5) Does the system have built-in error correction?
- 6) Does the system handle rights management information?

Publication considerations:

- 1) Does the system have a customizable web interface? Is the interface written in a script that you or a staff member can easily manipulate?
- 2) Does the system provide customizable functionality and display to provide contextual information?
- 3) Does the system come with adequate accompanying documentation for your audience?
- 4) Is the functionality of the system clear to a wide variety of audiences, including digital novices and technology sophisticates?

Conclusion

Librarians have long been accustomed to the mantra "meeting user needs." They and their colleagues in cultural institutions cannot stop chanting this phrase when they face a Web page editor. The needs of the user come first. Be aware of your different audiences and design for their particular requirements. Remember to present your materials in such a way that the disabled may have access to it. But no matter the audience, it is a good idea to place an abstract and overview of the important issues covered by your Web page at the beginning of the page. This helps with the retrieval of information. Keep in mind that different browsers present pages in different ways. Make sure your page is "browser

neutral" and looks good and makes sense whether it is being presented by Netscape, Explorer or others. And, no matter how good your page looks, if it takes a long time to load, no one will ever see it. Keep the images small, cut out the animation, and make that page run faster.

Further Reading

Apple Web Design Guide,
http://www.geo.tu-freiberg.de/docs/apple/web_design/intro.html

Fleming, Jennifer and Richard Koman. *Web Navigation: Designing the User Experience*. Cambridge, MA: O'Reilly and Associates, 1998.

Gray, Douglas E. Preparing Graphics for the Web,
<http://www.dsdesign.com/articles/gif.htm>

Lynch, Patrick J. and Sarah Horton. *Web Style Guide: Basic Design Principles for Creating Web Sites*. 2nd edition, Yale University Press, 2002
<http://info.med.yale.edu/caim/manual/contents.html>

Niederst, Jennifer. *Web Design in a Nutshell: A Desktop Quick Reference*. 2nd edition. Beijing, Sebastopol, CA: O'Reilly, 2001.

Nielsen, Jakob. *Designing Web Usability: The Practice of Simplicity*, 1999.