

Designing Effective Web Pages

Objectives	Develop understanding of web design principles.
Required Reading	<ul style="list-style-type: none"> - Lesson 2 - Preparing to Publish on the Web (Lemay, p. 25) - Lesson 16 - Writing Good Web Pages: Do's and Don'ts (Lemay, p. 499) - Lesson 17 - Designing for the Real World (Lemay, p. 533)
Supplemental Reading	<ul style="list-style-type: none"> - Chapter 3 - Planning the Site, Sklar, p. 69 - Chapter 4 - Planning Site Navigation, Sklar, p. 93 - Chapter 6 - Street Signs and Breadcrumbs, Krug, p. 51 - Chapters 1-5, and 7, Krug
Assignment	<ul style="list-style-type: none"> - Complete your Design Documents (please also refer to Design Document Template and Design Document Example located in [Resources/3. Guidelines for Assignments/6. Final Project/Design Documents]). - Due March 5th, 11:59pm.

I. Important Concepts

Along with the Dos and Don'ts Lemay discusses, please **don't use "Under Construction" signs on your web pages**. If you are publishing a web page, it should be complete enough to display. If it's so unfinished that you need to label it as such, it should be left unpublished until it's ready.

It is relatively simple put together the mechanics of a web page with a little time and work. Yet there exists a multitude of poorly designed, just plain awful web pages out there. Keep in mind the principles of design and the impact on your audience as you make decisions about your web documents. Communicating, understanding, and learning don't just happen without good planning and thought behind the material that is presented. Continue to look critically at web sites as you develop a sense of what well-designed, purposeful pages, include -- and don't include.

Remember that the purpose of the web is to provide a hypermedia environment. The flexibility of a hypermedia environment offers great potential; however, web designers must be diligent about building in user support through clear navigation, logical layout, and justifiable use of the elements used on the web page.

By asking for feedback throughout the design process, you can gain insight into how intuitive your navigation is (e.g., do people seem to understand what is hyperlinked, where it leads, and how to get back), how your site displays on systems other than the one on which you designed it, and whether your content is adequate.

Steps in designing a web site

Web design begins with how your site will function. The look is important, but unless you have a well planned site, looks will get you nowhere.

- Conceptualize – think about the content/information that you want to put on the Web
- Design – use storyboard to plan your website
- Build
- Publish
- Promote
- Evaluate

Creator's Vision

Ask yourself these questions as you plan your site.

- What is the site's purpose?
- Who is the primary audience?
- What is my message and how do I most effectively convey it?
- How do I facilitate understanding and communication?
- What effect will different forms of media have?
- Can I reinforce a concept using more than one kind of media, e.g., text and a graphic?
- Do individual elements such as a graphic or animation enhance communication or detract from the message?
- Is this element necessary? Does it serve a real purpose or is it just glitz?

Macro-level (Global site decisions)

- Site Structure
- User control?
- How many levels?
- Navigation
- Audience
- Consistent look
- Color scheme
- Placement of major elements like navigation bars and banners or logos

Technical considerations might include how inclusive you want your site to be. Are you designing for the widest possible audience? If so, you'll need to keep in mind that older versions of browsers may not support design elements such as frames. If users access your site through a dial-up connection, loading times for graphics are a consideration. What about people using text-only browsers? Granted, they may be few, but if maximum accessibility is important for your purposes, you can't ignore them.

Micro-level (Individual page decisions)

Micro-level decisions include decisions about placement of individual elements on a page and the use of multimedia components like sound, graphics, and animation

To scroll or not to scroll?

In the early days of webbery, folks treated browser windows like dialog boxes that display everything viewable at one time. (See Jakob Nielsen's "Changes in Web Usability Since 1994" at <http://www.useit.com/alertbox/9712a.html>.) Since then, Nielsen's research has shown that we've figured out that web pages are more like word processing or other scrollable documents. For the initial home page screen, however, it's best to design a screen that fits into the browser window without scrolling. Remember that a long page can benefit from anchor links. These allow you to put a table of contents menu at the top of the page and let users jump to the various sections within the page.

Text and Readability

Jakob Nielsen also researched "How Users Read on the Web" (see <http://www.useit.com/alertbox/9710a.html>) and found that 79% of Web users scan text. It's a good idea to put the most important content near the top of your page, especially if the page is scrolling.

eFuse has interesting comments on background branding or including a recognition graphic at http://www.efuse.com/Plan/this_site_from_scratch_ii_de.html. They say, "background images can (and should) be quite compact. The ones on this site are around 8K, which, at 28.8, should take less than four seconds to download."

eFuse also discusses content framing, which eases readability by placing a white page of text on a darker background. Intentionally, their lines of text are set less than some screens would display them

by default. As more people use higher resolution monitors (such as 800 x 600 or 1024 x 768), sites that have text running from one side of the screen to the other are increasingly difficult to read. They say, "eFuse.com sets type at an optimal width of approximately 60 characters (at the default 12 point size, this translates to around 450 pixels wide). You can achieve this by creating a table with a set pixel width and putting text into the table.

Set type in black and white.

Why? It's easier to read and colored type often confuses readers by appearing to be a link. eFuse has a good section on Web Fonts written by a typographer at http://www.efuse.com/Design/web_fonts_basics.html. You'll find examples of different fonts and how they'll appear on a web page.

II. Basic Principles of Design – User Interface

2.1 Visual Considerations

Several basic design principles come into play when designing web pages. Adhering to these principles is a start toward creating elegant web pages that, along with good content, demonstrate your competence to viewers. Among these design principles are:

- Balance - Achieving equilibrium within a screen
- Rhythm - Movement by repetition of regulated visual elements.
- Contrast - A difference between elements
- Emphasis - The part that is noticed first on a screen. You may use contrast to achieve emphasis.
- Proportion - The size relationship of elements to each other and to the whole.

Although visual aesthetics are important to your web site, good navigation is essential. The following links provide useful information about both navigation and interface design in general.

- Navigation -- <http://www.pointafter.com/tips-navigation.htm>
- Interface -- <http://athos.rutgers.edu/~shklar/www4/rmiller/rhmpapr.html>

2.2 Graphics

- Use web safe RGB hexadecimal colors for background colors and text (see <http://www.intuitive.com/coolweb/colors.html>)
- Use ALT, height, width tags
- Use gifs for line art and large blocks of the same color; use jpgs for photographs and graphics with many variations between pixels
- Quality vs. file size
- What purpose does the graphic serve?

2.3 User testing

You will conduct formal user testing for your Evaluation Report. However, it is a good idea to conduct user testing as you go so that you can find problems early. Use the following types of questions to help you evaluate your web site and make needed changes:

- Describe the testers' computer system: processor speed, operating system, modem speed.
- How quickly did the pages load?
- Which parts, if any, loaded too slowly?
- Are any graphics missing?
- Was the color scheme pleasing?
- Were there any links that didn't work?
- Was the text easy to read?
- Did you find spelling or grammar errors?

- What, if anything, was confusing or distracting about the site?
- What is valuable about the site?
- How could it be improved?

2.4 Examples: The Good, the Bad, and the Just Plain Ugly

Web Pages That Suck.com - <http://www.webpagesthatsuck.com/>

2.5 Other Design Resources

- Ten Quick Tips for Better Site Design - <http://www.graphicdesign.co.uk/topten/web>
- Designing Information-Abundant Websites: Issues and Recommendations - By Dr. Ben Shneiderman - <http://www.cs.umd.edu/projects/hcil/members/bshneiderman/ijhcs/main.html>
- Testing Whether Web Page Templates are Useful - <http://www.useit.com/alertbox/980517.html>

III. Assignments

Before you write your design document, you should review some good and bad examples of websites that have similar purposes with yours. If you are a teacher building a website for your classroom, search for other teacher sites. If you are designing a site about traveling the world, look for other sites about travel. After reviewing some websites, you can start writing your design document.

The final project should be **something different** from your each unit assignment. The design document doesn't have to perfectly represent what your final web site will be. It is a way to get started and should be used as a guide. If, along the way, you find that you need to change minor things go ahead and do it. Don't feel that you must do exactly what you say in your design document. However, change purpose/audience or narrow down the scope of the site are considered major changes. You have to get your instructor's approval for major changes. Use the Design Document Template as a guide when you write your design document.

I. Content of the Assignment

The design document is a detailed text document that contains sections for each of the following:

- A statement of the purpose of your web site and how you determined the need for it - needs assessment. You need to talk with your potential users to assess their needs. Include the questions you asked and the data you received from them. **This is not a step you can skip.** It is important to know what your audience wants and expects when designing a website.
- A discussion of your target audience. This section should contain details about ages, male/female, prior knowledge or experience that they may have. Don't assume that I know about your audience. Spell it out for me. ☺
- A discussion of specific content that you will include and how it meets the goal of your web site.
- Information about how you intend to present the content in your site and why you chose to organize the information this way. It's not enough to simply say that you want to create a well-organized, easy to navigate web site. What is it about your design that will ensure that? How will your navigation support your target audience members as they use your site? How will the information be arranged?
- A list of any media (including images, audio, video, etc. Be as specific as you are able) that you will use, how you will acquire or develop it, and your rationale for including it. You need to discuss how you will deal with copyright issues and image rights. If the photo is a personal photo of your friends, will you ask them for permission to use the picture in your

site? If it is from a clip-art site, how will you be sure that the image is not copyright protected?

- Information about the color scheme you will utilize and your rationale for it. Include samples of the colors if possible. (In a Word document, this can be done by creating a shape with the color you will use and adding a textbox that has text the color you plan to use.
- A drawing or graphic design showing your site's organization and navigation. You can use a photo program, or create a diagram using the capabilities of Word.

Your design document should indicate the target audience for your site and the needs assessment you conducted. Remember, the needs assessment is used to determine the needs of your potential audience NOT the things you need to do to complete the web site. The design document should explain what you intend to accomplish through your web site, how you will do that, why it is important, and why you are making your design choices.

II. How to submit your Design Document

- You should write your design document with Microsoft Word, or a similar program. Please note this is a document and **NOT** a web page.
- When you are done, save your design document as **yourlastname_desdoc.rtf** or **yourlastname_desdoc.doc** For example, a file might look like kumalasari_desdoc.rtf.
- Upload your design document to your bengal space.
- Create a link to your design document from your assignment page.
- Type your URL for your design document in the Assignment Text in the Assignments tool.

III. Evaluation

Your design document will be graded based on the following criteria:

- Purpose
What are the goals and detailed description of why people come to the web site and use it?
- Needs assessment
Provided a summary of information received from target audience to determine need for web site
- Audience
Provided a detailed description of the type of user that will access the website
- Content
Provided a detailed description of content and how it meets the goals of the website
- Presentation of information
Detailed description of how the information will be organized
- Rationale of organization
Rationale is based on user needs and basic usability characteristics
- Media
Detailed description of media acquisition or development, and rationale for using it
- Color scheme and rationale
Rational is based on visual design and user characteristics
- Outline of web site organization
A drawing, graphic, AND text outline reflecting the site's organization and navigation
- Report format
Report is presented as a word document, named correctly, and a link provided from the assignments page.