7.1.2 Visual Design Concepts

Since users are impatient and don't read pages in detail, we must design for this behavior. Here are some general guidelines and practices for creating sites that are visually well designed. Some screenshots are shown of counterexamples that violate these guidelines; these examples are taken from Web Pages that Suck, a site by Vincent Flanders that highlights poorly built pages.

Keep each page's text short. Krug states a 3rd law of usability where he urges the developer to delete half of the words on a page, and then try to delete half of what's left. What remains will be the most important content that ought to occupy the page. Try this exercise on your wordy pages and see what results.

Put the most important content at the top of the page. A good heuristic is to look at the first screenful of information that appears when you load the page. Does it contain the most important information and links on the site? Or does the user need to scroll down the page to get important information? If scrolling is required to get to the most important content, reorganize or reduce the content to correct this. A related idea is that you should avoid content that needs a horizontal scroll-bar as much as possible, because most users hate to scroll the screen left-to-right.

Use formatting to indicate relative importance and categorization. Pages should be easy to skim and scan, and users' eyes are immediately drawn to elements on the page that are large, colorful, or positioned in prominent places on the page. To take advantage of this, make sure your site uses elements such as headings, lists, and bold/italic formatting on key words or phrases in your page. Write straightforward, informative text in your headings and titles. But don't burn out the user by bolding every other word; reserve emphasis formatting for the most important content.

The site shown in Figure 7.2 crams a lot of content onto too little screen real estate. It also does not place the most important content first, and the content is divided into too many columns. It is difficult to tell which content is important; every pixel seems to be screaming for the user's attention.

Figure 7.2 Site with cluttered layout

Choose fonts and font sizes carefully. Most web content looks best on screen in a sans-serif font such as Helvetica or Arial. Choose font sizes that are large enough for typical users to read.

Use color and backgrounds conservatively. Many inexperienced web authors splash garish colors all over their pages in a misguided attempt to spruce up the site. In many cases a site looks best with plain black text on a plain white background. Tiled background images behind text often make the text harder to read because they introduce visual noise and reduce contrast. Figure 7.3 shows a

page with way too much color and visual distraction. Another common flaw is to choose a text color that does not have high enough contrast from the background behind it. For example, some sites use a gray text color like #666 or #999 rather than black. This is hard to read against a white background.

Many designers also forget that some users have visual impairments such as red-green color blindness and therefore cannot distinguish some color information they have added to their sites.

Figure 7.3 Overuse of color

Organize your content. Your content should be structured to avoid long pages. Break up large articles of text into sub-pages, and provide an overview that explains the content in the separate parts. Provide an easy-to-use navigation between these pages so that the user can get around the site.

Be consistent. Use the same name for the same action throughout your site. (For example, don't call it "Search" on one page and "Find" on another.) Include common elements on every page of your site, such as a shared navigation bar or shared headings and formats. Use a common color and font scheme so that all pages on your site have a similar look and feel.

Don't be too creative: A unique look isn't always good. Conventional designs have the advantage of being familiar, thus reducing the time needed to get comfortable with the site. Danish usability engineer Jakob Nielsen coined Jakob's Law of the Web User Experience: Users spend most of their time on other sites, so that's where they form their expectations for how the Web works. Use common icons, phrases, and terminology that users will recognize. For example, if your site allows a user to queue up items for purchase, call it a Shopping Cart. Users know what a shopping cart is, and they've seen other sites with that analogy.

The site in Figure 7.4, ironically for a design firm, requires the user to click various sections of a picture of a human brain to get to the various areas of the site. The page gives the user no clue about what each section will do or how to find various information on the site. It's extremely unintuitive.
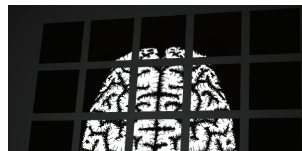

Figure 7.4 Unconventional site layout and navigation

7.1.3 The Design Process

Since design is important, set aside time to work on your site's design in detail before actually writing the site. Often the design phase involves interacting with the *customer* who wants the site created or with actual users of the site.

Diagramming a Site

Many designers begin by drawing rough sketches of the hierarchy of pages on the site and connections between them. These are called *storyboards* or *flowcharts*. Figure 7.5 shows an example storyboard. A related idea is to write the hierarchy of all pages as a list called a *site map*. You can also sketch rough images of individual pages' layout as shown in the figure at right. These images don't need to be pretty; the idea is to draw them quickly to give you ideas and flush out important issues.
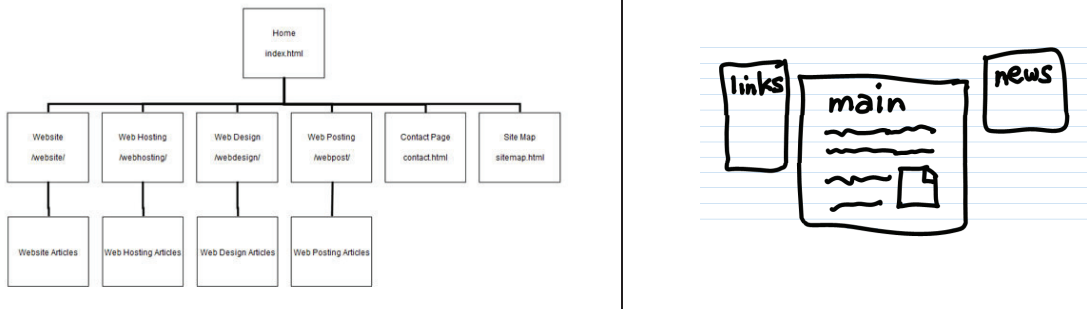

Figure 7.5 A web site storyboard and sketch of individual page layout

UI Prototyping and User Studies

Prototyping is the act of creating a rough, unfinished version of a site. You can use a prototype to sit down with users and walk them through usage tasks on the site. A prototype can be a set of hastily written HTML pages, but this requires you to actually write code for the site. Creating code takes a long time and cannot easily be done by designers and others without programming knowledge.

An alternative is to create a *paper prototype* with drawn sheets of paper to represent pages. You present pages to a volunteer and ask them to complete a specific task called a *use case* for the site. The user indicates what he/she wants to click, and you show them a new page or content. This exercise can help the designer realize what tasks are non-obvious for users to accomplish or what content is difficult to notice or discover. Interacting with users in this way and documenting the results is called a *user study*. There are other ways to gather information from users, such as surveys or site monitoring.
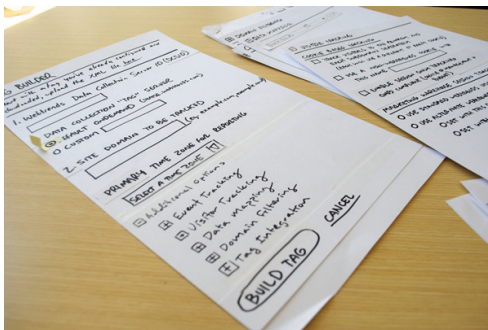

Figure 7.6 Paper prototype

Self-Check

1. What are some reasons why good design and usability are important on a web site?
2. How do typical web users behave, and how does this affect the design of sites?
3. Where is a good place to put the most important content on a page, and why?
4. What is Jakob's Law of the Web User Experience, and why is it a good rule to follow?
5. Why might it be better to create a web site prototype on paper rather than in code?

7.2 Page Layout

Another important aspect of a web site's appearance is the layout of the page: what content should be shown, where elements should be placed, and how elements should be spaced apart from each other. A page's layout can often make or break the user's experience. A page that is clean, organized, and easy to navigate will let your user focus on your website's services. A confusing or chaotic page will frustrate and distract your user, and it may even try his patience with your site altogether.

7.2.1 General Appearance

The typical user is a skimmer, someone who is impatient and doesn't read pages in detail. Your site's layout should be structured in a way for a skimmer to find what he/she is after. Here are some general guidelines and practices for your site's overall layout and appearance.

Keep it clean. Clutter causes visual distraction for visitors. Layouts are messy and confusing when there are too many things trying to draw the user's attention. Haphazardly placed elements, distracting backgrounds, animations, and excessive use of graphics are all signs of clutter. Use structure and organization to prevent clutter from creeping into your page.

Leave a liberal amount of white space in your layout. Not every pixel of your site must be crammed full of content. Many users find a simple, uncluttered, plain layout to be the most pleasant. Google is a well-known example of a site that rose to popularity partly because of its clean and basic layout. (It can be hard to remember that when Google came out, most search engines had huge layouts full of sub-menus and utilities. Google changed the game.)

Favor left alignment or justified alignment. Some inexperienced developers overuse the center and right alignments on their content. But left-alignment is the most common style for English and many other languages, and a page that deviates too far from this expectation can stand out in a bad way. Reserve centering for key elements like headings and figures. Don't center-align all of your paragraphs and other text, like the image shown in Figure 7.7.

Figure 7.7 Over-use of centering

Choose widths and columns carefully. Many sites have multiple columns of information. But having multiple columns requires the user to read down one column, then back up to the next column, then down again, and so on. If there are too many columns or their content seems to be arbitrarily distributed, users become frustrated. A typical site has a central column for most of the content, plus the possibility of another smaller column on the left and/or right side for other information such as navigation bars or links or stories. More than this is usually asking for trouble.