Apple Web Design Guide

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Contents

Introduction

We here at Apple would like to help make people's adventures on the Web as good as they can be. Based on our experience designing, building, and testing easy-to-use computer products, we're offering suggestions for creating Web pages that are usable and effective.

This document contains information about general human interface principles that you can apply to designing Web pages. It provides some general Web design considerations and links to other Web design resources that we've found useful and informative. This information has been drawn from our Macintosh Human Interface Guidelines, from experience and expertise on the part of members of the Apple human interface community, and from information gleaned from the Web itself.

We plan to expand the information in this document over time and are interested in your ideas.

Plan Your Site

Before you start putting up pages on the Web, think about who your audience is, what you want to say, and how you want to say it. Approach the planning of your site from your audience's perspective and ask yourself, as a viewer, "what do I want to get from this site?" Remember, the Web is a communications tool. Most people who visit your Web pages are there in search of useful or entertaining information, not to admire your fancy graphics skills or HTML prowess.

Have an Objective

Each of your Web pages should have an objective; whether to inform, educate, entertain, or involve the viewer. If you can't clearly articulate a page's objective, reconsider including that page in your site.

Develop Content Before Design

The design of your Web site should be determined by the information you want to communicate. Define your content before you spend a lot of time on page design. You don't want to invest a lot of time and effort in page layout and navigation design only to later find that your design doesn't work for your content or purpose of your site.

Add Value

What makes a Web page useful is the unique information on that page. Avoid creating pages that are just a collection of links to other pages, unless you provide some additional value by organizing links into logical groups or adding informative descriptions.

Provide the Basics

There is some basic information you should include on your Web site to help users know who created the content and provide feedback to you.

Provide Author or Contact Person Information

In order to let people know who is responsible for the information contained on your Web site, provide that information somewhere on your site. It's not necessary to list it on each page. Include the following information about your site on the home page and on other pages if it makes sense:

- Author or contact person
- Author's institutional affiliation, if any
- Author's e-mail address or other appropriate contact information

Identify With Your Corporation or Institution

If your page is sponsored by an official body such as a corporation, educational institution, or an organization that has a recognizable identity, include that on your pages. For example, you could use your logo, seal or letterhead.

List Your URL

You might want to list the URL (uniform resource locator) of your site. A good place to put this is on your home page. That way if users print the page, they can figure out how to get back to your Web site.

Let People Know How Current the Site Is

If your site features time-sensitive information, provide the date on which the information was last updated. This technique helps people know what's new on your site since the last time they visited. On the other hand, if you don't update your site regularly, don't include a date since that makes it look like you aren't maintaining your site.

Communicate Effectively

Getting your message across effectively makes users more likely to gain knowledge from your site and to visit it repeatedly. Using standard language, formatting, and style help to create a useful, clear message.

Keep Pages Short

Short pages are better than long pages. People are more likely to read a short passage of text than a long one, especially if they have to make an extra effort, like scrolling, to do it. Onscreen text is more difficult and time consuming to read than hardcopy text, which makes people even less likely to thoroughly read long sections of text on a computer.

Use Formatting Wisely

Keep your pages inviting and easy to read by using short paragraphs and by limiting the use of text formatting such as bold and italic style. You can use bulleted or numbered lists where appropriate and techniques such as indented paragraphs of text (block quoted) or centered text to set off key ideas.

Summarize Information

Emphasize key points in long passages of text with headings.

Use Specific Link References

It's more efficient to highlight keywords in your text, rather than using words like "this" or "click here" as links to other pages. It's generally more efficient to embed a link within a sentence than to provide a

description of a link with a click here link. Keyword links are also more explicit about where the link is taking the user.

Define a Language Style (or Use an Existing Style)

Use a consistent writing voice. For example, publications like *The American Heritage Dictionary, The Chicago Manual of Style,* and *Words Into Type* define style and usage issues such as how certain terms are used and the preferred capitalization, spelling, and hyphenation of those terms. The *Macintosh Human Interface Guidelines* also provide suggestions for consistent style and preferred terminology.

Use Familiar Terminology

It's very tempting to use the words that you're familiar with when you're developing Web pages or elements on the screen. However, it's best to use terms that your users are familiar with and that are consistent. For example, don't use technical jargon or computer science terminology unless that's your intended audience.

Label Human Interface Elements Clearly

Make labels for interface elements easy to understand. When you write labels for screen elements, speak in the user's language. Be as specific as possible in your labels or names for forms such as radio buttons, push buttons, and checkboxes. It can be difficult to name a particular action or option in a word or two, but it's important to be concise and clear. In any case, don't sacrifice clarity for space.

Use Book Title Capitalization for Human Interface Elements

In labels or names for elements such as menu items, checkboxes, radio buttons, and push buttons, use book title capitalization style. This style

is referred to as Caps/Lowercase. In general, this means that you capitalize every word except articles (a, an, the), coordinating conjunctions (for example, and, or), and prepositions of three or fewer letters (except when a preposition is part of a verb phrase).

Write Useful and Clear Error Messages

It is your responsibility to make sure that the user can understand what is going on when you can't be there to explain. All communication with the user, such as error messages and status messages, should be descriptive rather than evaluative. When you're writing messages, try to put yourself in the place of your users and imagine how they will feel when confronted with your message. A good error message says what went wrong, why it went wrong, and what the user can do about it. Try to express everything in the user's vocabulary. Here's an example of an error message that provides little information and doesn't suggest to the user what is really going on

"Error 404: File not found."

You could improve this message by describing the problem in the user's vocabulary. For example, you could say something like this:

"The page you requested is no longer at this location."

To really make this error message useful to the user, you need to provide some suggestion about what the user can do to get out of the current situation. In this example, you could suggest clicking the Back button so that the user can return to where they came from. For more information on writing messages to the user, see the article Guidelines for Effective Alerts.

Help Users Find Their Way

Design your site so that users can easily navigate through it. Try to create a site where users can form a mental model of the site and its contents. There is much you can do to help foster a sense of the entirety of your site and how to get around in it.

Take Advantage of Keywords

Use the same keywords in a page's title, head, and body text. These elements are indexed by search engines. Search engines rank their results based on the frequency of keywords in each document they find. Therefore, using the same keyword in different parts of your page can increase the likelihood that your page will be found by people looking for that keyword. Meta tags are often used by search engines to get more indexing information for a site. For more information on using meta tags, see Dr. Clue's HTML Guide.

Provide a Directory of Your Site

If you have more than a few pages, a table of contents page is helpful to the reader. This page has links to all your pages and shows the relationships of your pages to each other.

Show Users Where They Are

Provide users with a way to know where they are in the context of your site. One way to do this is to highlight the current location in a table of contents that shows the main levels of your site.

Minimize the Need to Scroll and Resize

Fiddling with scroll bars and window size controls takes time and effort. If possible, design your pages so that all information can be viewed within the default window width, which is approximately **460 pixels.**

Use Descriptive Titles

Put a descriptive TITLE tag in your HTML code. When users add a bookmark for your page, the title is used as the title of the user's browser window and as the bookmark. Be sure to use a title that tells where the bookmark leads to on every page of your site.

Choose the Appropriate Depth Versus Breadth for Your Site

Create a balanced site structure that allows users to get to the information they are seeking within three clicks. If your site is well structured, users can form a mental model of it that helps them understand the scope of the site. For more information on this issue, see the **Yale Style manual**.

Use Appropriate Navigation Buttons

If the material you are creating is linear in nature, follow the book metaphor and create a structure that users can navigate by going from one page to the next using Previous and Next buttons. This way users can be sure that they have covered all of the information in the site. For example, if you are creating a site that contains lots of information about a topic, use Previous and Next buttons to aid users in getting through all of the sections without having to go up and down the hierarchy or your site. When the user gets to the end of a sequence of information, either omit a Next button on the page or disable it.

If there is little carry over from one section to another in your site, use buttons that link to your main page or a logical section. For example, if your site provides representations of art in your museum, you could group the pages by era or artist. The user could then navigate through the site in a random order. Each section would link back to the main page. Each page could link back to the section where it is located.

Avoid Dead Ends

Don't create a situation where the only way to leave a page is by using the browser's Back button. Provide Previous, Next, and Top buttons.

Include Internal Links on Long Pages

If a page must be long, use internal links on the page to aid with navigation through its contents. Remember to use relative links so that the browser doesn't reload the page each time a link is selected (full URLs may cause this behavior). If you include a topics list at the top of the page, it's helpful to include links to a table of contents every so often on the page. You can also include a "Go To Top" link at the bottom of the page so that users can easily return to the beginning of the page.

Include Links to the Key Locations in Your Web Site

Consider providing links to the following places in your site to help your users navigate:
• Home
• Index
• Table of contents
• Previous page and next page
• Other sections (branches of the hierarchy)
• Other pages within the section

Duplicate Navigational Items at the Bottom of Your Pages

Most people read from the top of a page to the bottom, so they want to go somewhere else at the end of a page. Therefore you should provide navigation links at the bottom of your pages, particularly if the page scrolls, so that users can easily get from one place to another. Be sure not to include too many links throughout the page.

Be Consistent in the Placement of Navigation Links

If your site has navigation links at the top and at the bottom of one page, include them on all pages throughout your site. Providing navigation links in standard places helps people to develop a perception of stability in your site and makes navigation easier.

Use Cross References

Include a table of contents on your page to cross-reference the pages on the same level of the section. You can also provide links to sources and related items such as abstracts, references cited, and related items of interest. You can include cross-references to topics with a synonym for a name. For example, "For information on windoids, see Utility Windows." You can include cross-references to similar information. For example, "For additional information on elephants, check out African Animals."

Provide a Search Mechanism

If your site is large or complex, help users find what they want by providing a local search mechanism. Doing so mitigates any navigation problems that may arise due to a deep content structure.

Design for Efficiency

Different users have different access to the Internet via modems of different speeds, saturated intranets, or sites that don't have enough servers. Problems of access arise when your site becomes the "cool site of the day" and many users try to access it simultaneously; or if users are accessing your site from geographic regions with reduced numbers of connections. Because you can't predict at what speed a particular user is accessing your information, it's important to design with efficiency in mind. This page contains tips on designing for low-bandwidth situations, however they occur.

Don't Bury Information

In organizing the information on your Web site, try to make sure that the user can get to useful information in less than three clicks.

Minimize File Size

Smaller sized files take less time to display. If you have a large amount of text, consider breaking it up and organizing it on multiple pages. One good way to keep an image file small is to use a minimal number of colors. Gradations and three-dimensional effects also tend to bloat the size of image files. In general, try to keep file sizes below 50 KB for both text and image files.

Use Small Images

Limit the physical size of your images for faster performance. Be sure to crop your images as closely as possible.

Use Thumbnail Graphics

If you need to display a large image, consider putting it on a separate page and linking to it via a small thumbnail representation. This lets users decide if they want to take the time to view the image in its large format.

Repeat Images Where Possible

Using the same image in multiple places helps performance since once an image is downloaded, it can be subsequently accessed from the local memory cache. For example, using standard bullet characters, title banners, and separator images enhances performance.

Specify the Width and Height for Graphics

Specifying the WIDTH and HEIGHT attributes for images makes your page appear to download much more quickly since most browsers can determine the page layout before the graphics are downloaded. The browser can display the text portion of a page first and fill in the graphics later. Users can begin to read your page before waiting for all the graphics to download.

Use Interlaced Images

Interlaced images are loaded in multiple passes, with each pass providing more resolution detail. This way users get an idea of what the image looks like before it is completely downloaded. Interlaced images are generally perceived to load faster than non-interlaced images.

Know the Difference Between GIF and JPEG

Today, virtually all popular browsers can read both GIF and JPEG images. Some older browsers, however, cannot display JPEG images. JPEG images typically compress better, are smaller, and load faster. They are particularly efficient for displaying photographic images. However, JPEG compression does cause some of the original image information to be lost. GIFs, on the other hand, do not lose any image data during compression. GIF images are generally better for displaying line drawings and solid colored graphics.

Accommodate Differences

People who access the Web use all types of computers, operating systems, and browsers. The more of these various configurations you accommodate, the greater number of people will have an enjoyable experience at your site.

Provide Alternate Text for Images

Many users turn off automatic image loading for better performance. Others have computer systems that support only text-based browsers. Therefore you should provide text alternatives for all graphic images used in your site. Use the ALT tag to include information about what shows up when a graphic image does not appear. If you use images for navigation, make sure you also provide redundant text links.

Provide Files in Cross-Platform Format

To allow as many people as possible to use files on your Web site, make the files available in a cross-platform format (PDF, for example). Otherwise make files available in a format for each specific platform, such as one for Mac OS, one for the Windows operating system, and one for UNIX systems.

Let Users Decide

Consider providing two different versions of your Web site; an "enhanced" version for those with high bandwidth connections and graphics-capable browsers, and a "light" version for those with slow connections or text-only browsers. Give users a choice of which version to access from your home page.

Make It Look Nice

When designing your Web site, you need to consider graphic design aspects such as layout, composition, and style. You may have different appearances for different levels of pages within your site. However, there should be standard elements throughout the site that users can rely upon to help them know where they are and find what they're looking for. If you are not a graphic designer or a visual designer, you may want to consider working with one to help you define the visual language of your Web site. It is also helpful to consult the literature on page design for print media.

Use Appropriate Formatting

HTML is designed to be an abstract language that allows its content to be reformatted based upon the context in which it is viewed. HTML has good defaults, but you may want to look at an HTML reference guide to find alternatives for setting text attributes such as line breaks and the placement of graphics and text. Users choose which fonts they want to use in their browsers; therefore, you can't count on any particular font being present. You can, however, define a proportional relationship between the font sizes in different elements on the page. For example, you could set different font sizes for different levels of headings.

Assume a Screen Size of 640 pixels x 480 Pixels

Most people don't extend their browser windows beyond the 640 pixel width. Therefore you should make your pages no wider than 640 pixels. You can assume that users may have a smaller screen size, but because of the many 13-inch monitors in use, you can never assume that a page can be bigger than 640 pixels by 480 pixels. Some people might even be using a PDA such as a Newton MessagePad to view your Web site. Many people don't realize that they can scroll down a page, so

it is essential to put critical information into the first screen full that people see when they open a page.

Design for Different Page Orientations

Because users can change the size and shape of their web browser windows, you should check your page layout in different configurations to be sure that it works well however the user views it.

Don't Capriciously Change Link Appearances

Most browsers have a default appearance for unread links and links that the user has already viewed. Because users rely on the consistency of the interface to help them navigate and use the Web, it's best not to override these settings by hard coding an appearance for links in your site. If you do find a compelling reason to override the appearance of links, do so consistently throughout your site. Don't capriciously change the appearance within your site.

Use Caps/Lower Case or Initial Cap Style for Headings

Because text in all capital letters is more difficult to read and has a connotation on the Internet of SHOUTING, avoid using it to emphasize headings or text. Instead use the initial cap style (first letter of a phrase is capitalized) or the caps/lower case style for headings on your Web site.

Use Empty (White) Space Liberally

Empty space (known in the book design domain as white space) provides relief on a page and draws attention to aspects of the page design. Use white space around headings, graphics, and paragraphs of text to create a sense of balance on the page. By providing relief, white

space can neutralize the effect of two competing elements of the same size that draw the eye back and forth across a page. You might want to consult a professional book designer or the current literature regarding page design.

Establish a Layout Grid for Your Site

In order to foster a visual identity for your Web site, create a standard layout that remains the same throughout your pages. You can have different elements that you plug into different locations on different levels of pages, however the grid should be consistent. Your home page may have a separate grid. Each subsequent level of your site should have a consistent identifier such as a title banner or navigation bar that shows users where in the site they currently are.

Use a Consistent Visual Design Language

Treat graphics consistently throughout your site. Use the same style of graphics (photo realistic, flat color, or black and white) throughout your site. Be consistent-either always embed graphics in text or put them in a standard position on the page. You can design short pages that have small graphics or pages that consist mainly of graphics. Alternatively you can have one long page that incorporates text and graphics.

Make the title graphics throughout your site consistent in size and graphic design. Place the navigation tools in the same place on all pages using the same size and design.

Use the same alignment for all pages throughout your site-left-aligned, centered, fully justified, or right aligned pages.

Encourage Dialog

Providing users with the opportunity to interact with you via your
Web site keeps people engaged so that they visit frequently.

Provide Ways for People to Interact With Each Other

Consider including a page on your site where people can post messages.
You could include a type-in area where people add comments that then
get posted to the page. This technique is similar to a moderated
newsgroup.

Provide Ways for People to Interact With Well-Known People

Providing access to celebrities or people with expertise in the field
addressed by your Web site keeps people interested in your site. You
can provide webcasts of events such as concerts or conferences. You can
also include audio files that allow people to listen to famous people's
speeches. You might want to provide an area in your Web site to
conduct online chats via e-mail. If you do have online chats, you
should post a schedule of when a particular topic will be discussed.

Provide an E-mail Contact

Encourage people to send you feedback via e-mail by providing an
address. Make the address a link to a MAILTO form to make it easy for
users to send you e-mail. Then be sure to respond to the feedback either
by updating your site appropriately or acknowledging the receipt of the
information.

Provide a Way for People to Request Specific Information

You can provide a way for people to request a predefined set of information, such as product specification sheets, or a way for people to ask for clarification of information on your site. Again, you can do this by e-mail. If you get enough similar questions, you could publish a Frequently Asked Questions (FAQ) document as part of your Web site.

Make the Interaction Live, If You Can

One way to make the interaction really meaningful and exciting is to provide a live video downlink that offers users useful information or the ability to alter the output. One site provides a downlink of a telescope that the user can move by entering coordinates. The TV station **KPIX** provides live updating of the weather in San Francisco so that people can get regular information on the conditions.

Think Globally

Around the globe there are regional, linguistic, and writing system differences. It's much easier to include worldwide compatibility from the beginning of your development process than to try to incorporate support for it after your product is complete. This may mean that you create your Web site so that it is easy to localize for use in a specific area. Localizing Web sites involves translating your site into a language or regional dialect.

Provide a Way for Users to Choose a Language

Include a link on the home page that allows users to choose the language version that they want to use. Make sure that they have one consistent place to switch language versions. Also, make sure that the links are consistent on all versions of your site. If you have a button that switches versions and a user is on page 2 of a level 3 document, when the user clicks the button, it should switch to the exact same location in the alternate language version.

Know the Region for Which Your Web Site Is Developed

Make sure that visible interface elements can be localized for other regions around the world or are appropriate for use around the world. Whenever you design a Web page, consider that differences exist in the use of color, graphics, calendars, text, and the representation of time in various regions around the world. For example, different cultures use different objects to store documents. In the United States, file folders are flat and have tabs that can indicate the contents of the folder. In Europe, file folders are more like narrow cardboard boxes. You may want to localize elements of the user interface, such as graphics or the colors of text, in versions of your application designed for different regions or different languages.

Choose Your Graphics Wisely

Graphics have the potential to enhance your Web pages, but they can also be offensive. Cultures assign varying values and characteristics to colors, animals, plants, and inanimate objects. For example, in the United States the owl is a symbol of wisdom and knowledge, whereas in Central America the owl represents witchcraft and black magic. It's a good idea to avoid the use of seasons, holidays, or other calendar events in Web sites, unless your Web site specifically addresses one of these concepts.

Know the Date

Different formats are used to represent dates in different parts of the world. Also, different calendars and formats are used to mark time around the world. The United States and most of Europe observe time according to the Gregorian calendar, which is a solar calendar. The traditional Arabic calendar, the Jewish calendar, and the Chinese calendar are lunar rather than solar. Often time is marked according to one calendar for business and government purposes and according to a different calendar for religious events. It's always best to write out the month to avoid confusion. For example, the date "2/8/96" means February 8 in the United States, but August 2 in Europe.

Consider Language Differences

Translating text is a delicate task and can often cause confusion, so be wary of using colloquial phrases or nonstandard usage and syntax. Carefully choose your words. Be aware that engines exist on the Web that instantly translate sites into different languages. So your site may be translated even if you don't have it translated. If you use standard language, the translation engines will produce better results. When translated, text can become up to 50 percent larger than U.S. English text. Consider that text may grow up, down, and sideways when

translated and allow for this in your layout. Text may change directions depending on the directionality of the language.

Avoid Assumptions About Text

Writing systems may differ in the direction in which their characters and lines flow, the size of the character set used, and whether certain characters are context dependent. No matter what level of worldwide text support you provide, it's important to avoid four common assumptions:

• Characters aren't necessarily 1 byte; they can be 2 bytes.
• Text isn't always left-aligned and read from left to right.
• Text isn't always read by a person; it may be spoken through a text-to-speech converter.
• Fonts aren't always what you set them to.

Consider Alignment Differences

The alignment of controls on a page may vary with localization. For example, Arabic and Hebrew are written from right to left, so the alignment of items in an Arabic or a Hebrew page is generally right to left, just as Web pages in English or Russian are generally left to right. When the alignment of items is reversed, it's important that the elements appear vertically aligned. Therefore, when you create controls, make sure that they will align if they are localized to appear in a different location on the page.

Maintain Your Site

A well-maintained site is a pleasure to visit. Let your users know you care about them by making your Web site work for as many browser, platform, and access configurations as possible, by paying attention to details such as spelling and grammar; and by keeping your site tidy and up-to-date.

Test Your Web Site

Before you make a Web site available to the public, be sure you test it. Testing should be done with a variety of browsers on various platforms. Try accessing your site with a text-only browser or with image loading turned off. If you use a lot of graphics, try accessing it over a slow link, such as through a 9600 baud modem.

Copy Edit Your Pages

Be sure to spell-check and proofread your Web pages carefully. Better yet, have someone else proofread them. You can use a utility such as Doctor HTML to perform an automatic check for you.

Don't Overuse "Under Construction" Signs

Virtually all of the Web is under construction. If you must use "under construction" notes or graphics, use them sparingly.

Check for Broken Links

Make sure you test your links to other sites frequently. You can do this manually or use one of several software utilities available that do this automatically.

Update Your Site Regularly

Regular updates will keep people coming back to your site. If you know that you will be updating a portion or all of your site at regular intervals (for example, weekly or monthly), you could mention that and invite visitors to check out the next update after a specific date. You might also use a What's New link on your home page to provide quick access to added or modified information.

Keep Information Timely

When using your Web page to announce events or activities, make sure you remove the information after the event has passed.

Provide Access to Archived Information

If you are updating your site regularly, you might also want to keep information that is not time critical, such as articles or essays, available to new visitors. Put these in a list on a separate page and provide a Back Issues link.

HTML Tips

Here are a few tips for writing HTML code:

Comment Your HTML Code

For complex pages, pages you know others will maintain or add to, and templates you create for others to use, be sure to use comments liberally. Here are some examples of HTML comments:

<-- client side map for buttons begins here -->

</UL> <-- end of list -->

Know Nesting Priorities

When nesting HTML tags, the ANCHOR tags <A>, </A> should always be innermost.

Use the BORDER Attribute for Tables

Even if you don't want borders around your tables, it's helpful to include the BORDER attribute in your TABLE tag. Set BORDER=1 to see an outline of your table cells to help you preview and debug your table layout. When you have your table formatted the way you want, simply set BORDER=0 to turn off the cell outlines.

BOLD vs. HEADER Tags

Since HEADER tags can create uneven spacing around the heading, use BOLD tags when you want only to make text bold.

Ordered Lists

Always use ORDERED LIST tags, <OL>, </OL>, instead of numbers
when you want a numbered list of items.

Case Sensitivity

Anchor names and references are case sensitive. Make sure your
anchor references and file names match exactly.

Use PARAGRAPH Marks Appropriately

Don't use the PARAGRAPH mark, <P>, to provide space between
headings and text or between text and lists. The necessary spacing will
be handled by the HEADER and LIST elements.

Web Design Bibliography

Niederst, **Jennifer** *Designing for the Web: Getting Started in a New Medium*, **O'Reiley**, ISBN **1-56592-165-8**

Sano, **Darrell** *Designing Large-Scale Web Sites: A Visual Design Methodology*, **Wiley**, ISBN **0-471-14276-x**

Siegel, **David** *Creating Killer Web Sites: The Art of Third-Generation Site Design*, **Hayden Books**, **1996**, ISBN **1-56830-289-4**
> A very thoughtful and practical guide to building what Siegel refers to as 3rd Generation Web sites: sites driven by design deployed to provide visitors a complete "experience" employing real-world metaphors and models of consumer psychology. Siegel provides especially good information about page layout and handling text and type faces.

Weinman, **Lynda** *Deconstructing Web Graphics*, **New Riders Publishers**, **1996**, ISBN **1-56205-641-7**
> Teaches you how to study Web design through analyzing and reverse-engineering how others create successful Web sites. The book includes case studies and profiles of designers and programmers, by touring you through their sites, artwork and code, and supplying tutorials to help you apply their knowledge to your Web site design skills.

Weinman, **Lynda** *Designing Web Graphics*, **New Riders Publishers**, **1996**, ISBN **1-56205-532-1**
> A full-color step-by-step guide will teach you successful methods for designing graphics for Web delivery. It's written in a conversational, user-friendly style without fluff or hype. The CD-ROM includes HTML templates, tutorial files and graphics-related helper applications.

Wilson, **Stephen**. *World Wide Web Design Guide*, **Hayden Books**, ISBN **1-56830-171-5**.

Human Computer Interaction Links

There are plenty of excellent on-line resources that offer helpful information on all aspects of human-computer interaction and Web design. Here are a few that we found useful and informative:

Human Interface Links

[ACM SIGCHI](#) is a professional organization to bring together people working on the design, evaluation, implementation, and study of interactive computing systems for human use.

[The HCI Bibliography](#) by Gary Perlman at The Ohio State University.

[Human-Computer Interaction Resources on the Net](#) is a collection of information related to Human-Computer Interaction (HCI).

[interactions](#) is ACM's quarterly magazine for designers of interactive products.

[UI World](#) provides a listing of online forums and mailing lists on topics related to human interface design.

Web Design Links

[Creating Killer Web Sites](#) explains how to design "third-generation" Web sites by carefully specifying the position and relationships of all page elements and using metaphor and visual themes.

[Sun Microsystems Guide to Web Style](#) provides guidelines developed by Sun Microsystems personnel who have created and browsed web pages, sifted through existing usability and human interface design literature, and conducted usability testing on actual web pages.

[Web Page Design for Designers](#) is aimed at people who are already involved with design and typography for conventional print and want to explore the possibilities of applying these skills to publishing on the Web.

[Web Style Manual, Yale Center for Advanced Instructional Media](#) describes the design principles used to create the pages within the Center for Advanced Instructional Media's (C/AIM) World Wide Web site.

[Yahoo! Category on Page Design and Layout](#) offers a list of many other sites with useful information on web design.

Glossary

Bandwidth: The amount of goodies (data, info, etc.) you can send or retrieve through a network connection. Usually measured in bps (bits per second.)

Bookmark: Saving a frequently accessed link in a file on your browser rather than having to look up and type in the URL every time.

Browser: A "client" program that allows you to look at various kinds of Internet documents. Browsers can be textbased like Lynx or graphic like Netscape.

Client: A remote computer connected to a host or server computer. Also the software program that makes the connection possible. A web browser is a specific type of client.

FTP: file-transfer protocol. A common way to move files across networks.

HTML: HyperText Markup Language. The coding used to create WWW documents.

HTTP: HyperText Transport Protocol. The way the Web moves information.

Hypertext: also hotlink and hyperlink. Hypertext is a link to other information either on your current website or elsewhere on the Internet. It's generally in bold and underlined type, and, always"clickable". Clicking on it will transport you to the other information.

ISP: Internet Service Provider. A company that provides access to the Internet, usually for a fee. Examples include Prodigy, Compuserve, and America Online.

Java: A Sun Microsystems programming language that enable's web pages to incorporate animations, calculators, and other cool stuff.

Newsgroup: A discussion forum on the Internet.

Online: On or connected to the network.

Surf: To explore the World Wide Web.

URL: Uniform Resource Locators. Web page addresses, such as http://www.apple.com

World Wide Web: A nonlinear hyperlink-based system for accessing the Internet.

Website: An interactive destination on the WWW where you can get specific information about the site's creator. Here's an analogy: the Internet is the ocean, the Browser is your ship, and Websites are islands you can explore.

About This Document

The Apple Web Design Guide is the result of Apple's desire to improve the user experience of the Web. We wanted to provide Web page designers with a resource that explains how to apply a user-centered design philosophy to the implementation of Web pages.

This document is still evolving, and we welcome your feedback.

Please send us comments and suggestions to:

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The People Behind Apple's Web Design Guide

Many of the people behind the Apple Web Design Guide are from the Human Interface Design Center and Developer Press, at Apple's R&D headquarters in Cupertino, California.

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