Web sites

For relatively little money, anyone with access to a networked computer can produce a Web site, zine, or blog and connect with people all over the world. This chapter will introduce you to publishing your own content in a simple Web site, from pre-planning to design to the basics of HTML and other technologies.

—*Katherine Cornelius and Allen Harrison*

Make a Plan

Before you turn your computer on, sit down with a pencil and paper and plan your Web site. This will save you time and energy in the long run and will lead to a more enjoyable experience.

GOALS AND AUDIENCES List the top three to five goals of your Web project, in order of importance. Your main goal may be to sell your artwork, share your opinions, build a photo gallery, or promote an event.

Next, describe the intended audiences. Are they young or old? What Web sites do they visit? What is their typical connection speed to the Internet? How much time will they spend on your Web site?

These exercises will keep you focused throughout the Web development process. When you are deciding to add a new feature to the site, refer back to your goals to check the relevance. Use your audiences to make decisions such as the placement of content, font size, and use of bandwidth-heavy technology.

SITE ARCHITECTURE Diagram the hierarchy of your content. You can do this on the computer, as we did in our example, or with pencil and paper. Connect the main topics to the home page, then connect the subsections to the main topics. These connections will be links, or pathways for users to reach the content.

When completed, think as if you were an end-user. How quickly can you find certain content? What information needs to be linked to the home page? Keep in mind how your audience will use the information. What will they be looking for? What will interest them?

FILE STRUCTURE When designing your site, always remember that a Web site is a collection of files. Every page on the site is a file, and so is every graphic or movie. Each file has its own name and location (address). The browser reads all those names and addresses and builds a page on your screen. Your site architecture is a blueprint of the way the files will sit on your hard drive and on the server. Use this blueprint when you are creating HTML files.

To explain the Web process, we created several examples of home pages for an imaginary Web site. Listed below are our goals and audience for our fictional site.

OUR GOALS	OUR AUDIENCES
1. Create a visual tutorial and useful tool about Web design.	*1. Technically savvy people who may not be trained as designers.*
2. Create designs that are fun and engaging.	*2. People generally interested in design.*
3. Present examples that do not require a lot of technical knowledge.	*3. People who want to grasp the power to publish in their own hands.*

HOME

MAKE A PLAN	DESIGN	BUILD IN HTML	PROGRAM FURTHER	SET-UP THE SITE	PROMOTE THE SITE
GOALS & AUDIENCES	SKETCH	FILE STRUCTURE	CSS	DOMAIN NAME	SEARCH ENGINE OPTIMIZATION
SITE ARCHITECTURE	DESIGN TO COMPUTER	HTML	JAVASCRIPT	REGISTERING A DOMAIN NAME	MARKETING
FILE STRUCTURE	COLOR	HTML EDITORS	MACROMEDIA FLASH	PURCHASE WEB SERVER SPACE	
RESEARCH	TYPE	TABLES	DYNAMIC WEB SITES	FTP	
COLLECT MATERIALS	HTML LAYOUT & THE GRID		OPEN SOURCE	E-COMMERCE	
	OPTIMIZING GRAPHICS		XML		
			XHTML		

SITE ARCHITECTURE

• Group together sections that pertain to each other.

• Try not to have more than seven main navigation pages.

• Don't bury your content.
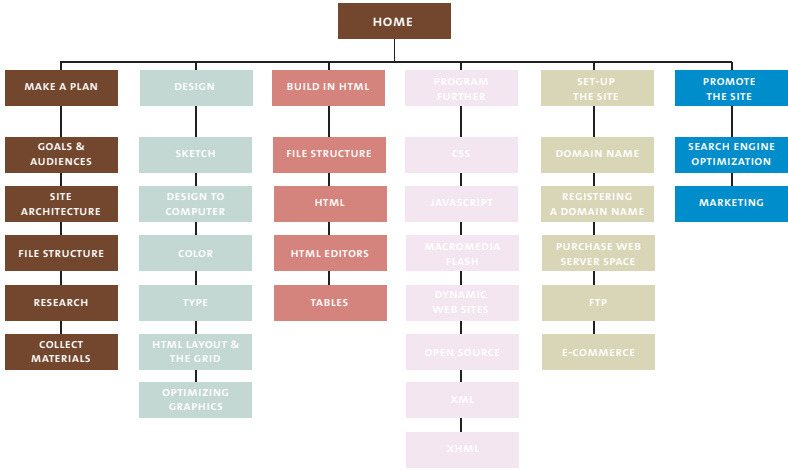
RESEARCH Find Web sites that you like and ask yourself why they are successful. Look at the design and placement of navigation elements and the use of colors and typefaces. Look for Web sites that are similar in audience, subject matter, or look and feel to your future Web site. Look for simple sites that are not too far beyond your technical ability.

COLLECT MATERIALS AND CONTENT Transfer photos and art work to digital format. Save graphics as jpgs and gifs. Gather these materials before you start the design process so that you can use them in your design or as inspiration.

You also need to assemble your written content early in the Web process. Delays are often caused by missing content. Save the copy in text documents; you can copy and paste into HTML later in the process.

Design

SKETCH On paper, sketch several layouts for your home page and interior pages. Try different placements of the logo (or header), navigation, and content. Plan how the navigation will change on the interior pages.

TAKING YOUR DESIGN TO THE COMPUTER The standard image-editing software for building a Web site is Adobe PhotoShop. Use it to make shapes, choose colors, crop images, type content, and save files for the Web.

Start by creating a document that is 750 pixels wide x 480 pixels high. This size will fit into the standard Web resolution of 800 x 600 pixels and will allow users to print the pages of your site. Next, place the design elements in the locations indicated in your sketch.

COLOR Choose a color scheme that matches the feel of your site. It could be serious or fun, warm or cold. Use contrasting colors to highlight certain features. It is important that your image files are saved in RGB, since this is the format computer monitors use to read colors.

TYPE There are two main ways to display text on the Web: HTML text and graphic text. HTML text is written in an HTML document. There are only a handful of fonts that are displayed on all platforms. Common HTML typefaces are Times, Arial, Helvetica, Verdana, Courier, and Georgia. Graphic text is created in an image-editing software tool such as PhotoShop and is displayed as an image.

Use HTML text for large bodies of copy and text that you want to download quickly. Use graphic text when you want to use a specific font or integrate type with an image. Navigation and header images are commonly in graphic text. Text is best saved as a gif file.
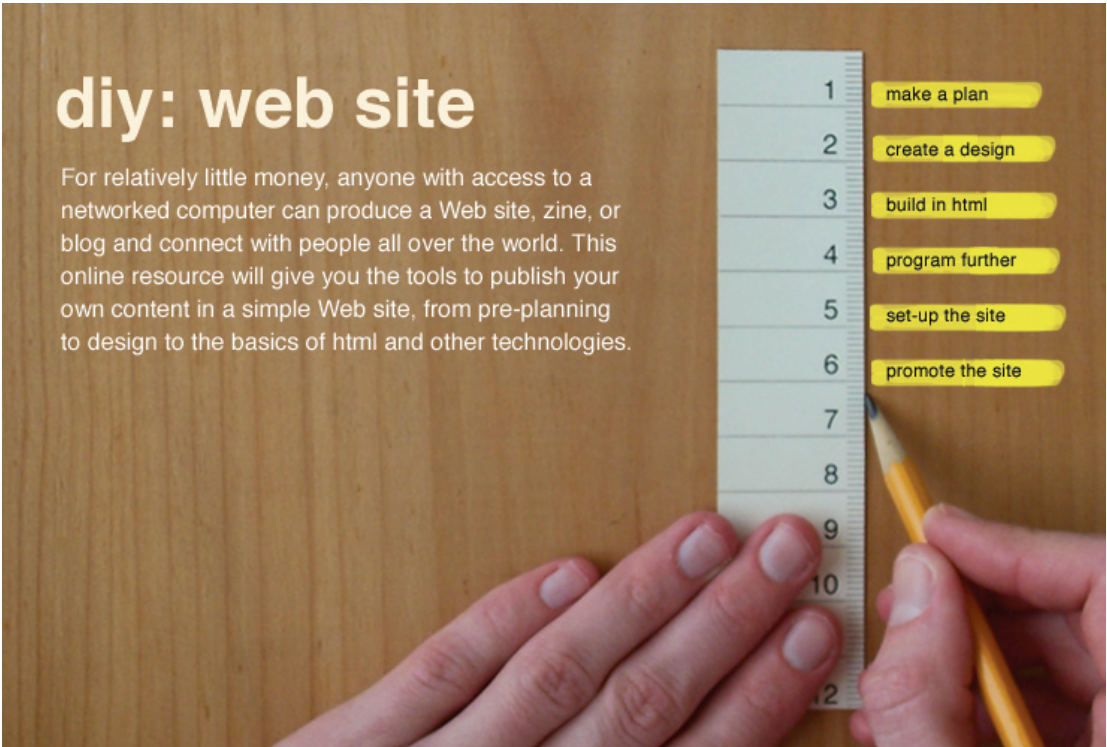
HTML LAYOUT AND THE GRID The designs that you have created on the computer will be broken down into components of an HTML page. As you work, think about how the design will translate into HTML. Most HTML layouts use tables with rows and columns. If this is your first Web site, you may want to design using a simple grid.

OPTIMIZING GRAPHICS FOR THE WEB Web professionals use programs such as Adobe ImageReady (companion to Adobe PhotoShop) and Macromedia Fireworks to optimize and save images. These programs allow you to optimize multiple images at a time and save them to your images folder. This is especially helpful for rollover navigation images.

TOOLS OF THE TRADE The plywood, hands, pencil, and ruler are part of a background image created with a digital camera. The title and navigation were produced in PhotoShop and saved as optimized gifs. The body copy is HTML text. *Design: Katherine Cornelius*

diy: web site

For relatively little money, anyone with access to a networked computer can produce a Web site, zine, or blog and connect with people all over the world. This online resource will give you the tools to publish your own content in a simple Web site, from pre-planning to design to the basics of html and other technologies.

1 make a plan
2 create a design
3 build in html
4 program further
5 set-up the site
6 promote the site

Build in HTML

FILE STRUCTURE When building a Web site, it is important to organize your files and graphics in a simple, consistent way. On your local computer, create a new folder with the name of your project. Do not use any spaces or special characters in the folder or file names; use the underscore character to separate words. We suggest creating three folders inside the main folder; name the folders *docs, source* and *Web*. The *docs* folder will contain content materials, including the sitemap and text files. The *source* folder will contain files used in the design of the Web site, such as PhotoShop, Illustrator and non-optimized image files.

All HTML pages and files that will be uploaded to the Web should be in the *Web* folder. This folder serves as your development space before uploading files to the Web. Within the *Web* folder, create a new HTML page and name it *Index.html*. This is the standard default page on most Web servers and will serve as your home page. Create an *images* folder inside your Web folder for all the optimized images on your site, as well as folders for your main content areas.

HTML is a set of tags that are inserted around the content in your files to tell the browser how to display your files. HTML stands for "hypertext markup language." Writing HTML does not require any special software; all you need is a text-editing program such as BBEdit or SimpleText that types plain text with no formatting. HTML tags tell the browser to make text big or small, to use a particular font, to get a picture, to build a table, and to create links to other files in your site or out somewhere in the World Wide Web.

HTML EDITORS are programs that allow you to create Web pages and manage Web sites without a strong knowledge of HTML. Two popular HTML editors are Macromedia Dreamweaver and Adobe GoLive. These programs provide a visual system to develop a Web page, import images, create links, add color, and set type. You can toggle back and forth between the visual design and the HTML code. We highly recommend working with an HTML editor, which can be easily learned through workshops and tutorials.

TABLES Many HTML pages use tables to create a structure and hierarchy within the code. Tables contain rows and columns. Each component in the table is called a cell. Inserting tables within cells is called nesting tables. Web designers manipulate tables to create orderly and interesting pages.

ACCESSIBILITY Visually impaired users employ automated screen readers that "linearize" Web pages into a continuous text that can be read aloud by a machine. Techniques for achieving accessibility include the captioning of all layout tables (or, better yet, the avoidance of tables altogether), the consistent use of "alt tags" (which identify image files), and the placement of page anchors in front of repeated navigation elements that enable users to go directly to the main content. Various software programs allow designers to test the linearization of their pages.
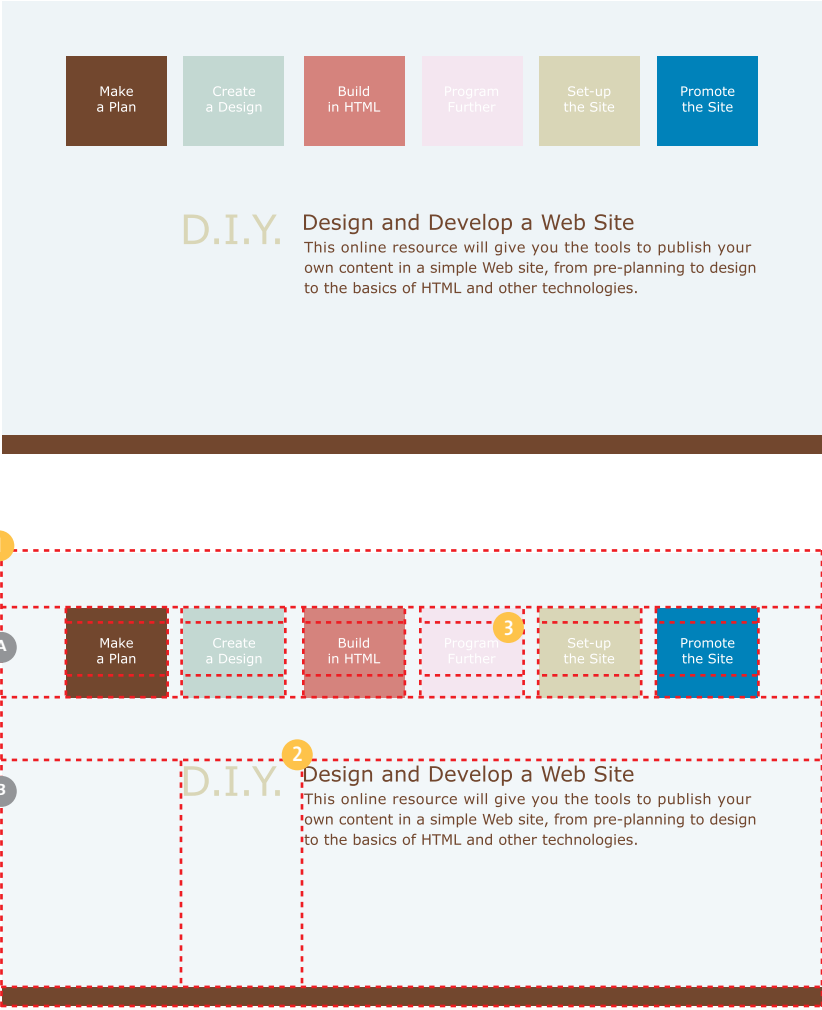
PLAIN VANILLA
This simple design was created in an HTML editor. Without adding any images, you can create interest with layout, shape and color.

1. The first table we created has one column and five rows. Within rows A and B, we nested tables in order to control of the precise placement of the navigation and body content.

2. Verdana, a font designed by Matthew Carter for use on the Web, is used throughout the page. The header, navigation, body content, and contact information use different font sizes, creating a hierarchy of information.

3. The copy of each navigation square links to interior pages within the site. These are called relative links. If a link points to a URL outside the local site, it is called an absolute link and needs the full URL in the link tag.

Design: Katherine Cornelius

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MARYLAND INSTITUTE COLLEGE OF ART : NEWS

date   item

03.22.05   David Edward Launches First Student Chair Design Competition Open Only to MICA Students >>>>

03.22.05   From Friday, March 25 through Sunday, April 3, MICA's MFA Thesis I Exhibition Highlights Twelve Artists and a Group Show from Four Graduate Programs >>>>

03.15.05   MICA Guidelines on Student Installations in Public Places >>>>

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The Maryland Institute College of Art Web site employs a variety of media, including Flash, Cold Fusion, JavaScript, and css. The navigation (created in Flash), the news items (created in Cold Fusion), and the photographic background image are all dynamically driven by a database. HTML is a container for the various elements.
Design: Carton Donofrio Interactive and Fast Spot

Beyond HTML

In many Web projects, HMTL is not enough. If you want to add a form, produce a blog, or even create a rollover image, you will need to employ additional Web technologies and scripting languages. Listed here are a few possible directions to pursue in creating interactive Web sites.

CSS (Cascading Style Sheet) is used to specify fonts, colors, headers, and positioning of text. Linked to your HMTL page in the <head> tag or embedded in the document, style sheets provide control and consistency throughout your site, especially with type. You can define styles for each font used on your site, and if you need to make changes to the size or color in the future, you only need to adjust the style sheet, not each individual page. HMTL editors, like Dreamweaver, make it easy to create and use style sheets.

JAVASCRIPT is a scripting language used to enhance Web pages, often executed by mouse functions, buttons, or other actions from the user. A simple navigation rollover is an example of JavaScript. You can use an HMTL editor to automatically generate JavaScript behaviors, or you can copy and paste desired code from existing Web sites.

MACROMEDIA FLASH is used for making animations, games, interactive menus, and other elements. You don't need this program to build an informational Web site, but it is fun to add motion to your pages. Flash is extremely powerful and complex, but creating simple animations is easy.

DYNAMIC WEB SITES use databases to supply content. A programming language such as ASP, ColdFusion, PHP, Perl or JSP is used to communicate with the database. As the user interacts with the site, dynamic Web pages are built on the fly.

This is also called a Content Management System. A CMS enables users to modify content through an administrative Web site, eliminating the need for content producers to have intimate knowledge of HTML.

OPEN SOURCE describes computer programs, scripting languages, and operating systems that use publicly available source code. In true D.I.Y. spirit, the open source philosophy encourages social interactivity. Programmers modify and improve the source code and then enter it back into the public domain. PHP is a popular open source scripting language that can be embedded into html.

XML (Extensible markup language) was created to solve the processing, presentation and scalability issues associated with html. Using descriptive markup tags, such as <name>Katherine</name>, XML provides meaningful data that can be stored in a database. However, most browsers do not recognize xml. The Web standards commission, World Wide Web Consortium (W3C), developed xhtml to solve this problem.

XHTML (Extensible Hypertext Markup Language) is a combination of XML and HTML. Whereas HTML code can be written loosely, XHTML code follows strict guidelines. A true implementation across the Web will produce faster processing of Web pages and consistency of design across browsers.

USING PAYPAL
To set up a seller's account with PayPal or a similar service, go to teh PayPal Web site for instructions. PayPal will instruct you to make a button that goes on your site. When a user clicks your Add to Cart button, he or she will be directed to the PayPal site to complete the e-commerce transaction.
Design Mike Weikert
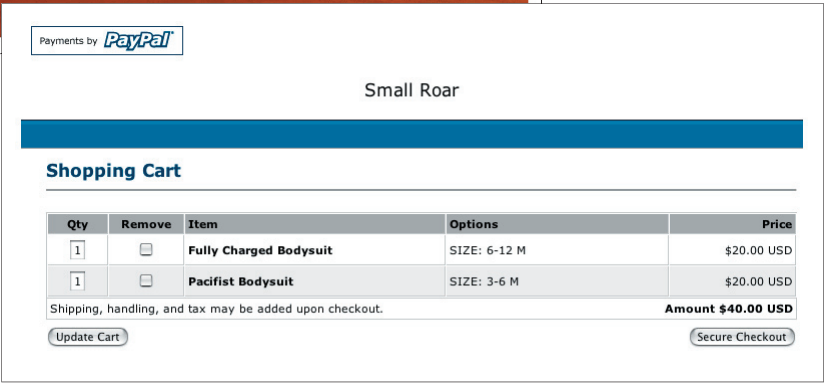
Launching Your Site

DOMAIN NAME A domain name is a unique name that identifies a Web site, such as micadesign.org. When typed into a browser or sent as an e-mail address, the Domain Name System (DNS) translates micadesign.org into Internet Protocol (IP) numbers, such as 216.168.224.70. These numbers are used by the Internet to connect you to micadesign.org.

Domain name extensions include *.com, .net,* and *.org.* Many extensions are country-specific; for example the United Kingdom uses *.co.uk* and *.org. uk.*

REGISTERING A DOMAIN NAME When you choose a name for your Web site, check the *Whois* database located on a domain registry Web site to find out if the domain name is available. You can usually register the domain name at the same place where you purchase Web server space.

PURCHASE WEB SERVER SPACE To make your site public, you need a server, a dedicated computer that holds your Web site files and is available to users 24/7. You can rent space on a server for a relatively low cost per month. If your Web site uses programming other than HTML, the cost per month may be higher.

FTP File Transfer Protocol allows the transfer of files over the Internet or from one computer to another. When you buy Web server space, the hosting company will provide you an FTP address or another method of transferring your files to the Web.

E-COMMERCE If you intend to sell items on your Web site, you will need a merchant account and shopping cart capability. You can build your own shopping cart with a programming language, or you can rent space from a network-based e-commerce solution. One popular method for transactions is PayPal. Remember that once an item sells, you will have to produce the item and plan a method for shipping.

SEARCH ENGINE OPTIMIZATION There are several ways that you can optimize your Web site in order to obtain a higher ranking in the search engines. Of course, nothing guarantees that you will be listed at the top, but it's a good start.

There are numerous companies that will submit your Web site to search engines for a fee. Since this is a time-consuming process, purchasing this service may be a helpful option. Type in "Search Engine Optimization" on a search page to find providers. Otherwise, go to the major search engines and learn how you can submit your site.

Several search engines, such as Google, rank Web pages by the number of links pointing to the site. The Web crawlers also look at the text around the links and the link popularity of the referral Web site. Find Web sites that have similar content and ask them to list your Web site. Often times you can list their Web site in return.

MARKETING Look at the list of audiences that you created at the beginning of the Web development process. How can you best reach these audiences? What sites do they visit on the Web? What keywords will they type into a search engine?

You can use this information to create targeted advertisements on search engines. If you have a list of email subscribers, you may also want to research email blasts.

OPTIZMIZE YOUR WEB SITE
• *Create unique, descriptive titles for every page on your site, such as "Design It Yourself | DIY T-shirt Designs". Since Web crawlers only search the first 50-80 characters, be short and concise. Do not use punctuation or special characters in the title. Make sure the content of the page is relevant to the title.*

• *Include meta tags in your HTML document. Although this is not as important as it used to be, having descriptive keywords is still beneficial. You want to be sure that the keywords are relevant to your content.*

• *Fix broken links. Web crawlers will not index your whole site if there are broken links.*

• *If you want your images to be read by search engines, add alt tags, which are text descriptions of the images in your site, including images that serve as navigation.*